National Level Conference
Transdisciplinary Research in Bhartiya Gyan Parampara
Exploring Indigenous Knowledge for Contemporary Global Challenges

Jointly Organized by

Sardar Patel Educational Institute, Bhavnagar

and

Gyan Adhyayan Parampara Trust - Bharat

National-level Conference

Transdisciplinary Research in Bhartiya Gyan Parampara: Exploring Indigenous Knowledge for Contemporary Global Challenges

Jointly organised by

Sardar Patel Educational Institute

Bhavnagar

And

Gyan Adhyayan Parampara Trust - Bharat

Keynote Speaker

Shri Sunilbhai Mehta

Akhil Bhartiya Baudhik Pramukh

(Rashtriya Swayam Sevak Sangh)

Chief Guest

Honourable Dr. Bharatbhai Ramanuj

Vice Chancellor,

Maharaja Krishnakumarsinhji University,

Bhavnagar

Chief Patron

Shri G. L. Kakadia

(Chairman, SPST)

Patrons

Shri R. Z. Mendapara

(Vice Chairman, SPST)

Prof. (Dr.) J. P. Maiyani

(Secretary, SPST)

Conference Organising Committee

1. Prof. (Dr.) Gurudutta Japee

University School of Commerce, Gujarat University

2. Dr. Preeti Oza

Principal – LRMC, University of Mumbai, Mumbai

3. Prof. (Dr.) Preetiben Maiyani

Prof., HRDC, Gujarat University

4. Dr. Sangeeta Jauhari

Registrar, Rabindranath Tagore University, Bhopal

5. Dr. Shalini Rana

Government Education College, Jammu

6. Prof. (Dr.) Mahesh Jivani

Head, Department of Electronics,

Saurashtra University, Rajkot

7. Prof. (Dr.) Jay Badiyani

Professor, Department of Business Administration,

Maharaja Krishnakumarsinhji University, Bhavnagar

8. Prof. (Dr.) T. P. Joshi

Professor, Department of Chemistry,

Maharaja Krishnakumarsinhji University, Bhavnagar

9. Prof. (Dr.) H. L. Chavda

Head, Department of Sociology,

Maharaja Krishnakumarsinhji University, Bhavnagar

Conference Coordinators

Mr Jigneshbhai Gabani

CEO (Administration)

Sardar Patel Educational Institute

Bhavnagar

Mrs Sarita Malik,

CEO (Education)

Sardar Patel Educational Institute

Bhavnagar

Shri Govindbhai L. Kakadia
Chairman
Sardar Patel Seva Trust
Bhavnagar



CHIEF PATRON

It gives me immense pride and pleasure to present this publication comprising the research papers of the National Conference on Indian Knowledge System, organised under the aegis of Sardar Patel Educational Institute.

Sardar Patel Seva Trust, established in 1993, was founded with the noble vision of promoting social welfare through quality education. With this objective, the Trust established Sardar Patel Educational Institute in December 1996. Since its inception, the Institute has remained steadfast in its commitment to academic excellence, value-based education, and holistic development.

Today, the Institute offers a comprehensive educational ecosystem from KG to PG, including Gujarati and English medium co-educational schools, a girls' school, and a CBSE school. Over the years, it has consistently achieved outstanding academic results and has emerged as a premier centre for learning and skill enhancement across diverse disciplines including Science, Arts, Commerce, Management, Computer Science, and Education.

Building upon its remarkable success in school education, the Institute expanded into higher education to fulfil the aspirations of students who previously lacked access to advanced learning opportunities. Today, the institution serves the academic and professional needs of students not only from Bhavnagar but also from surrounding rural areas and neighbouring districts and states, thereby contributing meaningfully to inclusive educational growth.

The National Conference on **Indian Knowledge System**, organised in collaboration with Gyan Adhyayan Parampara Trust - Bharat, was a significant step towards fostering multidisciplinary research for sustainable development, while preserving and promoting the rich and timeless heritage of **Bharatiya Parampara** for future generations.

I am confident that this conference served as a dynamic platform for students, academicians, researchers, and experts to come together, exchange ideas, explore new perspectives, and celebrate the profound depth of Indian knowledge traditions in the modern context.

This publication stands as a tribute to Bharatiya Parampara—an enduring legacy of wisdom, values, and knowledge that continues to guide humanity, inspire generations, and illuminate the path towards a harmonious and enlightened future.

The insights and deliberations emerging from this conference will continue to resonate beyond its duration, shaping thought, inspiring action, and contributing to the ongoing journey of knowledge, innovation, and nation-building.

I extend my best wishes to all participants and contributors, hoping that their pursuit of knowledge continues to bring excellence and meaningful impact

Shri Rameshbhai Z Mendapara
Vice- Chairman
Sardar Patel Seva Trust
Bhavnagar



PATRON

It is a moment of immense pride and great satisfaction as we celebrate the 33-years of glorious journey of Sardar Patel Seva Trust and its remarkable contributions to the field of education and nation-building."

Over the years, the Trust, through Sardar Patel Educational Institute, has not only set benchmarks in academic excellence but has also demonstrated a strong commitment to holistic development. We take immense pride in the fact that our campus has been selected as the only **District-Level Sports Centre** by the Sports Authority of Gujarat, reflecting our dedication to nurturing excellence in both academics and sports.

The National Conference on **Indian Knowledge System** was jointly organized by Sardar Patel Educational Institute and Bharatiya Gyan Adhyayan Parampara Trust - Bharat. The conference served as a confluence of ideas, bringing together diverse perspectives to deliberate upon the relevance, depth, and contemporary significance of Indian Knowledge Systems. Rooted in the timeless wisdom of Bharatiya Parampara, these traditions offer invaluable insights into sustainable living, ethical values, and a holistic approach to knowledge and life.

We were honoured to host distinguished educationists, academicians, researchers, and scholars from across the nation, whose insightful contributions enriched the academic deliberations and added great value to the conference. Their presence made the event intellectually vibrant and truly meaningful.

We extend our heartfelt gratitude to all the delegates, invited guests, and participants for their enthusiastic involvement and valuable contributions in making the conference a grand success and a true celebration of **Bharatiyata**.

May such endeavours continue to strengthen our commitment towards preserving and promoting Bharatiya Parampara, ensuring that its eternal wisdom continues to inspire and guide generations to come..

Prof. (Dr.) J. P. Maiyani
Secretary
Sardar Patel Seva Trust
Former Vice-Chancellor
Bhakt Kavi Narsinh Mehta University



PATRON

I feel honoured and take great pleasure in welcoming you all to the National Conference on **Indian Knowledge System**, jointly organised by Sardar Patel Educational Institute and Gyan Adhyayan Parampara Trust- Bharat.

This conference serves as a vibrant platform for experts, researchers, academicians, and aspiring young minds, dedicated to exploring, sharing, and celebrating the richness of Indian traditions, values, and cultural heritage. It reflects a collective endeavor to reconnect with the profound wisdom embedded in **Bharatiya Parampara** and to reinterpret it in the context of contemporary relevance.

We were truly honored to have Honorable Shri Sunilbhai Mehta, Akhil Bharatiya Bauddhik Pramukh of Rashtriya Swayamsevak Sangh, as our keynote speaker. His inspiring address added great depth and prestige to this conference. His reflections on the timeless philosophy of **"Vasudhaiva Kutumbakam**"—the world as one family—deeply resonated with all of us.

I also express my sincere gratitude to the Honourable Vice-Chancellor, Professor Dr Bharatbhai Ramanujan of Maharaja Krishnakumarsinhji Bhavnagar University, whose insightful address on contemporary relevance of **Indian Knowledge Systems** and the **NEP** added great value to this conference. His thoughtful perspectives and words of encouragement were highly appreciated by all present.

The conference also featured insightful plenary sessions by eminent experts on diverse themes

Professor Dr. Amrut Bharwad spoke on the Philosophical Foundation of Indian Knowledge Tradition. He emphasised that the Indian Knowledge System promotes the holistic development of an individual.

Professor Dr. T. P. Joshi spoke on the topic of Science and Knowledge Tradition in India. He highlighted that ancient India achieved notable advancements across multiple scientific domains.

Professor Dr. Preeti Maiyani spoke about Ayurveda, Yoga, and the Holistic Health System. She explained that the Indian Knowledge System emphasises a holistic approach to health through the integration of Ayurveda, Yoga, and natural healing practices, focusing on harmony between body, mind, and spirit.

Professor Dr. Ashish Jankaray Dave spoke on Economics in Indian Texts. He described Indian economics as a vast ocean encompassing all components of modern governance, and added that if the new generation becomes familiar with it, they will feel a sense of pride and develop strong economic management skills.

Professor Dr. Vasant Patel spoke on the Nature of Indian Knowledge Tradition. He stated that the Indian knowledge tradition is holistic, timeless, and rooted in integrity, offering practical life wisdom for the overall development of human beings.

Professor Dr. Mahendrabhai Nai spoke on Indian Knowledge Tradition in Education. He explained that it is a profound and dynamic system that harmonizes intellectual inquiry with spiritual insight, guiding life toward truth, balance, and universal well-being.

Professor Dr. Jay Badiyani spoke on Management and Leadership in the Indian Context. He emphasized that the Indian Knowledge System views management and leadership as value-based, rooted in self-discipline, service, aims, collective well-being, and long-term harmony.

Their collective contributions have made this conference truly meaningful and intellectually stimulating for all participants.

We are honoured to host eminent scholars and all the distinguished experts from across India, who shared their valuable insights and visionary perspectives. More than 12 eminent speakers while over 100 young researchers and doctoral fellows from across the nation have actively participated through oral and poster presentations, both offline and online, making the conference truly vibrant, inclusive, and intellectually enriching.

I extend my heartfelt best wishes to all participants, speakers, delegates, and presenters. I sincerely hope that this conference proves to be a remarkable and enriching experience, fostering meaningful intellectual exchange and collaboration that transcends disciplinary boundaries.

With its focused emphasis on Indian Knowledge Systems, this conference aspires to be a landmark academic event, inspiring the educational community to rediscover, discuss, and disseminate the invaluable heritage of Indian knowledge traditions.

Once again, I extend a warm welcome to all delegates, invitees, and participants, wishing you a fruitful engagement and a bright and successful future ahead.

भारतीय धर्म: सुसाशन एवम् अर्थवयवस्था

डॉ. आशिष: जनकराय दवे,

प्राचार्य, समर्पण आर्ट्स एंड कोमर्स कोलेज, गांधीनगर

डीन वाणिज्य विद्याशाखा, गुजरात विश्वविद्यालय, अहमदाबाद



Plenary Speaker

विद्याञ्चाविद्याञ्च यस्तद्वेदोभयं सह।
अविद्यया मृत्युं तीर्त्वा विद्ययाऽमृतमश्नुते॥

(He who understands both knowledge and ignorance together transcend death through ignorance and attains immortality through true knowledge)

भारतीय धर्म ग्रंथ हमें निरंतर भारतीय दर्शन से परिचय कराते है। दर्शन का अर्थ जीवन पध्धति एवम् व्यवस्था से संबंध रखता है। जीवन के प्रमुख चार घटक धर्म, अर्थ, काम एवम् मोक्ष माना जाता है, इसमें प्रमुख तत्व धर्म है। धर्म केवल पूजा पध्धति नहीं है एवम् इसका कोई पर्याय नहीं है, धर्म अर्थात जीवन में किये जाने वाले कर्म का मार्गदर्शन, 'धार्यते इति धर्मः' अर्थात शास्त्रमे दर्शित कर्म हम कर रहे है वही हमारा धर्म है।

वाल्मिकी रामायण अयोध्याकाण्ड में प्रभु रामचन्द्रजी अपने अनुज भरतजी को सुशासन के प्रमुख ७ आधार स्तंभ का मार्गदर्शन करते समय सर्वोपरि धर्म को स्वीकार करते है इस पश्चात तुरंत मंत्रिपरिषद का महत्त्व समजाते हुए कहते है:

मन्त्रो विजयमूलं हि राज्ञां भवति राघव।

सुसंवृतो मन्त्रिधुरैरमात्यैः शास्त्रकोविदैः॥१००/ १६॥

कृष्णदैपायन वेदव्यास रचित महाकाव्य महाभारत में जो कहा है इसे विश्व का ज्ञानकोष स्वीकृत किया गया है, इसे नीतिशास्त्र, न्यायशास्त्र एवम् अर्थशास्त्र कुल मिलाकर समग्र भारतीय दर्शन का संग्रहित स्त्रोत माना जाता है, सुशासन के लिए विदुरनीति की किसी भी युग एवम्

स्थान पर सार्थक स्वीकृत है, इस का प्रत्येक पर्व विस्तृत ज्ञान एवम् मार्गदर्शन करता है, अगर साशन व्यवस्था की बात करे तो शांतिपर्व में धर्मराज युधिष्ठिर एवम् पितामहः भीष्म का संवाद हमें "राजधर्म" की समज देता है, वेसे तो पूरे महाभारत में प्रसङ्गानुकूल राजधर्म (नेतृत्व एवम् प्रबंधन) की बातें कही गयी हैं, किन्तु शान्ति पर्व में विवेचना करने से पता चलता है कि इसमें राजा का स्वरूप और राजा की आवश्यकता, राजाविहीन समाज की दशा, राजा द्वारा राज्य की व्यवस्था और प्रजापालन आदि नेतृत्व एवम् प्रबंधन के मुख्य विवेचना के विषय हैं।

श्रीमद् भगवद्गीता हमें दैनिक व्यव्हार में सांख्य एवं योग दर्शन का महत्त्व प्रतीत होत है, हमें त्रिगुण सत्व, रजस एवम् तमस का परिचय देते हुए कर्मचारी और प्रबंधक के बिच का व्यव्हार संदर्भ में मार्गदर्शन मिलता है ॥

मुक्तसङ्गोऽ नहंवादी धृत्युत्साहसमन्वितः।
सिद्ध्यसिद्धयोर्निर्विकारः कर्ता सात्त्विक उच्यते॥ १८/२६॥

सात्विक गुण वाला प्रबंधक / कर्मचारी अभिमान रहित अपने साथी कर्मचारियो को साथ में लेकर कार्य करता है, अपने कार्य की समज रखता है, इसे सफलता या निष्फलता विचलित नहीं कर सकती, हमेशा उत्साही एवम् उर्जावान प्रतीत होते है ॥

यत्तु कामेप्सुना कर्म साहङ्कारेण वा पुनः।
क्रियते बहुलायासं तद्राजसमुदाहृतम्॥ १८/२४॥

इसी प्रकार हमारे एकम में कुछ प्रबंधक / कर्मचारी नियमित अपने आवेगों से प्रभावित रहते है, इनके लिए अंतिम परिणाम महत्वपूर्ण होता है, परिणाम का माध्यम महत्वपूर्ण नहीं होता ऐसे प्रबंधक / कर्मचारी रजस गुण युक्त होते है ॥

अनुबन्धं क्षयं हिंसामनपेक्ष्य च पौरुषम्।
मोहादारभ्यते कर्म यत्तत्तामसमुच्यते॥ १८/२५॥

अपने एकम में अधिकत्तम प्रबंधक / कर्मचारी समयमर्यादा का पालन किये बिना कार्य को टालने वाले, स्वयं की शक्ति को अधिकत्तम मूल्यांकन करने वाले, अंतमे विवाद उत्पन्न करने वाले होते है ऐसे प्रबंधक / कर्मचारी तामसिक गुण युक्त होते है ॥

मनुष्याणां वृत्तिरर्थः, मनुष्यवती भूमिरित्यर्थः।

तस्याः पृथिव्या लाभपालनोपायः शास्त्रमर्थशास्त्रम्॥

अगर हम अपने प्रबंधक / कर्मचारी के गुण से परिचित हो जाये तो प्रबंधन एवम् साशन सरल हो जायेगा, भारतीय शास्त्र के विशाल समुद्र से केवल एक विषय अनुसंधान में कुछ बिंदु रखने का मैंने प्रयत्न किया है, अगर देवभाषा में प्रस्तुत इस मूल्यवान ज्ञान को वर्तमान समय में युवाओ को परोसा जाये तो मुझे श्रध्धा है की अति विचक्षण नई पीढ़ी अपने स्व से परिचय कर पायेगी और अपने आप पर गर्व की अनुभूति करेंगी, भारतउदय के इस अम्रितकाल में मुझे संपूर्ण विश्वास है की यह होकर रहेंगा॥

।। तन्मे मनः शिवसंकल्पमस्तु ।।

परंपरा से आधुनिकता की ओर: आयुर्वेद और योग द्वारा समग्र स्वास्थ्य का निर्माण

प्रो. (डा.) प्रीति जे. मैयानी

प्रोफेसर, यूजीसी-एमएमटीटीसी विभाग,

गुजरात विश्वविद्यालय,

अहमदाबाद



Plenary Speaker

भारतीय ज्ञान परंपरा में स्वास्थ्य को केवल रोगों की अनुपस्थिति के रूप में नहीं, बल्कि शरीर, मन, बुद्धि और चेतना के संतुलित एवं समन्वित विकास के रूप में देखा गया है। "धर्मार्थकाममोक्षाणाम् आरोग्यं मूलमुत्तमम्" जैसे विचार स्वास्थ्य के महत्व को जीवन के व्यापक उद्देश्यों से जोड़ते हैं। इसी समग्र दृष्टिकोण में आयुर्वेद और योग भारतीय ज्ञान परंपरा के दो महत्वपूर्ण आधार हैं, जो स्वस्थ जीवन, आत्म-अनुशासन, मानसिक संतुलन और जीवनशैली सुधार पर बल देते हैं। आयुर्वेद को जीवन के ज्ञान के रूप में देखा जाता है, जिसमें आहार, दिनचर्या, ऋतुचर्या, व्यक्तिगत प्रकृति तथा स्वास्थ्य संरक्षण को विशेष महत्व दिया गया है। चरक संहिता जैसे प्रमुख ग्रंथों में स्वास्थ्य, रोग-निवारण, आहार, औषधि और जीवनशैली से संबंधित विस्तृत ज्ञान मिलता है। आयुर्वेद में वात, पित्त और कफ अर्थात् त्रिदोष की अवधारणा स्वास्थ्य के पारंपरिक वैचारिक आधार का महत्वपूर्ण हिस्सा है। योग भारतीय ज्ञान परंपरा की ऐसी जीवन-पद्धति है, जो शरीर, श्वास और मन के अनुशासन के माध्यम से संतुलित जीवन की दिशा प्रदान करती है। पतंजलि के अष्टांग योग में यम, नियम, आसन, प्राणायाम, प्रत्याहार, धारणा, ध्यान और समाधि के माध्यम से व्यक्ति के शारीरिक, मानसिक और आध्यात्मिक विकास की प्रक्रिया प्रस्तुत की गई है। भगवद्गीता का "योगः कर्मसु कौशलम्" सूत्र योग को जीवन और कर्म में संतुलन, सजगता तथा कुशलता से जोड़ता है।

आयुर्वेद और योग के प्रमुख घटक

1. आयुर्वेद एवं त्रिदोष – स्वास्थ्य संरक्षण, रोग-निवारण, आहार और वात-पित्त-कफ संतुलन।
2. दिनचर्या एवं ऋतुचर्या – नियमित जीवनशैली, संतुलित आहार और निवारक स्वास्थ्य।
3. योग एवं अष्टांग योग – शरीर, श्वास, मन और चेतना के संतुलन की समग्र पद्धति।
4. आसन, प्राणायाम एवं ध्यान – शारीरिक सक्रियता, एकाग्रता, आत्म-जागरूकता और मानसिक शांति।

5. समग्र स्वास्थ्य शिक्षा – शारीरिक, मानसिक, सामाजिक एवं आध्यात्मिक स्वास्थ्य का संतुलन तथा प्रमाण-आधारित ज्ञान का समावेश।

आधुनिक समय में प्रासंगिकत: आधुनिक समय में तनाव, चिंता, अनियमित दिनचर्या, निष्क्रिय जीवनशैली और नींद की समस्याएँ प्रमुख स्वास्थ्य चुनौतियाँ हैं। योग, ध्यान, शारीरिक सक्रियता, संतुलित आहार और नियमित दिनचर्या स्वास्थ्य संवर्धन में सहायक हो सकते हैं। आयुर्वेद और योग को आधुनिक चिकित्सा के विकल्प के बजाय प्रमाण एवं चिकित्सकीय मार्गदर्शन के आधार पर **पूरक स्वास्थ्य दृष्टिकोण** के रूप में समझा जा सकता है। **NEP 2020** के अंतर्गत भारतीय ज्ञान परंपरा, समग्र एवं मूल्य-आधारित शिक्षा तथा अनुभवात्मक अधिगम के माध्यम से स्वास्थ्य-जागरूकता को शिक्षा से जोड़ा जा सकता है।

सारांश; "परंपरा से आधुनिकता की ओर" का अर्थ केवल प्राचीन ज्ञान को आधुनिक जीवन में दोहराना नहीं, बल्कि उसके उपयोगी सिद्धांतों को आधुनिक वैज्ञानिक दृष्टिकोण के साथ समझना और लागू करना है। आयुर्वेद और योग इस दिशा में भारतीय ज्ञान परंपरा और आधुनिक स्वास्थ्य विज्ञान के बीच एक महत्वपूर्ण सेतु का कार्य कर सकते हैं।

ભારતીય જ્ઞાન પરંપરાનો દાર્શનિક પાયો

પ્રો. અમૃત જે. ભરવાડ
શિક્ષણશાસ્ત્ર વિભાગ,
ગુજરાત યુનિવર્સિટી
અમદાવાદ.



Plenary Speaker

ભારતીય જ્ઞાન પરંપરા વિશ્વની પ્રાચીન અને સમૃદ્ધ જ્ઞાન પરંપરાઓમાંની એક છે. તે માત્ર ધાર્મિક અથવા આધ્યાત્મિક જ્ઞાન પૂરતી મર્યાદિત નથી, પરંતુ તત્વજ્ઞાન, વિજ્ઞાન, શિક્ષણ, આરોગ્ય, નૈતિકતા અને જીવનશૈલી જેવા વિવિધ પાસાઓને આવરી લે છે. તેનો મૂળ આધાર વેદો, ઉપનિષદો, પુરાણો, ઇતિહાસ ગ્રંથો અને દર્શન શાસ્ત્રોમાં જોવા મળે છે.

આ પરંપરામાં જ્ઞાનને માત્ર માહિતી નહીં, પરંતુ જીવન જીવવાની કળા માનવામાં આવે છે. 'सर्वे भवन्तु सुखिनः' અને 'वसुधैव कुटुंबकम्' જેવા વિચારો માનવતાવાદ અને વિશ્વભાઈચારાની ભાવના વ્યક્ત કરે છે. વ્યક્તિના શારીરિક, માનસિક, બૌદ્ધિક અને આધ્યાત્મિક સર્વાંગી વિકાસ પર ભાર મૂકવામાં આવે છે.

ભારતીય જ્ઞાન પરંપરાના મુખ્ય ઘટકો

- **1. વેદ:** ઋગ્વેદ, યજુર્વેદ, સામવેદ અને અથર્વવેદ; જીવન, બ્રહ્માંડ અને આધ્યાત્મિક વિચારોનું જ્ઞાન.
- **2. ઉપનિષદ:** આત્મા અને બ્રહ્મનના તત્વજ્ઞાન તથા અધ્યાત્મ અને તત્વચિંતનનો આધાર.
- **3. પુરાણો:** ઇતિહાસ, કથાઓ અને ધર્મશિક્ષણ દ્વારા નૈતિક મૂલ્યોનો પ્રસાર.
- **4. ઇતિહાસ ગ્રંથો:** રામાયણ અને મહાભારત દ્વારા જીવનમૂલ્યો, કર્તવ્ય, ધર્મ અને નૈતિકતાનું માર્ગદર્શન.
- **5. દર્શન શાસ્ત્ર:** સાંખ્ય, યોગ, ન્યાય, વૈશેષિક, મીમાંસા અને વેદાંત દ્વારા તર્ક, જ્ઞાન અને સત્યની શોધ.
- **6. ગુરુ-શિષ્ય પરંપરા:** વ્યક્તિગત માર્ગદર્શન, સંસ્કાર અને જીવનમૂલ્યો આધારિત શિક્ષણ.
- **7. યોગ અને ધ્યાન:** શરીર, મન અને આત્માના સંતુલિત વિકાસ તથા આરોગ્ય માટે મહત્વપૂર્ણ.

- **8. આયુર્વેદ:** પરંપરાગત ભારતીય ચિકિત્સા પદ્ધતિ અને શરીર-મનના સંતુલન પર આધારિત અભિગમ.
- **9. કલા અને સાહિત્ય:** સંગીત, નૃત્ય, ચિત્રકલા અને નાટ્ય દ્વારા સાંસ્કૃતિક અને આધ્યાત્મિક અભિવ્યક્તિ.
- **10. નૈતિક અને મૂલ્ય શિક્ષણ:** સત્ય, અહિંસા, કરુણા અને દયા જેવા મૂલ્યો દ્વારા વ્યક્તિત્વ વિકાસ.
- **11. લોકજ્ઞાન:** પરંપરાગત જીવનશૈલી, કૃષિ, હસ્તકલા અને અનુભવ આધારિત જ્ઞાન.
- **12. ભાષા અને વ્યાકરણ:** સંસ્કૃત અને અન્ય ભારતીય ભાષાઓ તથા પાણિનીનું વ્યાકરણ જ્ઞાન.

આધુનિક સમયમાં પ્રાસંગિકતા

આધુનિક સમયમાં માનસિક તણાવ, પર્યાવરણ સમસ્યાઓ અને નૈતિક મૂલ્યોના અભાવ જેવા પડકારો સામે ભારતીય જ્ઞાન પરંપરા માર્ગદર્શક બની શકે છે. યોગ, ધ્યાન અને આયુર્વેદ જેવી પ્રણાલીઓ આજે વ્યાપક રીતે સ્વીકારવામાં આવે છે.

સારાંશ

ભારતીય જ્ઞાન પરંપરા ધાર્મિક જ્ઞાન પૂરતી મર્યાદિત નથી; તે વિજ્ઞાન, તત્વજ્ઞાન, આરોગ્ય, શિક્ષણ અને જીવનમૂલ્યોનું સંકલિત તંત્ર છે, જે વ્યક્તિના સર્વાંગી વિકાસને પ્રોત્સાહિત કરે છે.

Science and knowledge traditions in ancient India: A personal perspective

Prof.Dr. T.P.Joshi
Prof. of Chemistry
Department of Chemistry
Maharaja Krishnakumarsinhji University, Bhavnagar



Plenary Speaker

Science and Knowledge Traditions in Ancient India: A Personal Perspective India's knowledge traditions represent a distinctive intellectual framework in which scientific thinking evolved in close connection with life, society, and ethical values. What is today described as the Indian Knowledge System (IKS) reflects an approach where inquiry was not confined to laboratories or formal institutions, but embedded in everyday practices, philosophical reflection, and interaction with nature. This integration ensured that knowledge remained both functional and meaningful. Classical Indian literature, including the Vedas and Upanishads, presents early efforts to understand natural processes, existence, and consciousness through systematic reflection. Disciplines such as astronomy, mathematics, and medicine evolved with emphasis on observation, inference, and validation. The Gurukul system further strengthened this approach by promoting experiential learning and critical engagement. Historical evidence indicates that ancient India achieved notable advancement across multiple scientific domains. Contributions in mathematics, medicine, metallurgy, and agriculture reflect a strong empirical foundation aligned with sustainability and practical application. It is therefore essential to reassess the perception that scientific development in India is a recent phenomenon. Centers of learning such as Takshashila, Nalanda, Vallabhi, and Vikramshila illustrate a vibrant academic tradition with global engagement, whose decline resulted from historical disruptions rather than intellectual limitations. In the present era, the relevance of IKS is increasingly evident. Contemporary challenges—including environmental imbalance, health concerns, and ethical issues in technology—require approaches that go beyond purely technical solutions. The principles inherent in IKS, particularly sustainability, preventive health, and responsible living, offer valuable complementary perspectives. From my perspective, engaging with Indian Knowledge Systems is not merely revisiting the past, but a forward-looking effort. It involves identifying enduring principles, critically evaluating them, and aligning them with modern scientific frameworks to develop knowledge that is sustainable, inclusive, and socially relevant.

Department of Chemistry, Mahatma Gandhi campus, M.K. Bhavnagar University, Bhavnagar-364002, GujaratEmail: tpj@mkbhavuni.edu.in ; tejas2709@gmail.com DST-FIST, Sponsored, Department of Chemistry Dr. Tejas Pradyuman Joshi Professor of Chemistry, CoE (OSD) Prof. Tejas. P. Joshi

Indian Knowledge Systems in Business: A Civilizational Perspective on Management

Prof. (Dr.) J. M. Badiyani
Professor,
Department of Business Administration,
Maharaja Krishnakumarsinhji Bhavnagar University,
Bhavnagar, Gujarat, India.



Plenary Speaker

Understanding business in India requires moving beyond the assumption that markets operate purely on transactional and profit-driven logic. In practice, Indian economic life reflects a deeper, socially embedded system in which relationships, trust, ethical expectations, and long-term orientation play a decisive role. What appears, on the surface, to be informal or unstructured behaviour—such as extending credit based on familiarity or prioritising reputation over immediate gain—is, in fact, rooted in a long-standing civilizational framework.

Indian Knowledge Systems offer a view through which this reality becomes intelligible. They present knowledge not as abstract theory, but as a lived and integrated understanding of life, society, and economic activity. Within this framework, business is not treated as an isolated domain; it is connected with ethics, social responsibility, and human behaviour. Economic decisions are therefore influenced not only by calculations of profit, but also by considerations of what is appropriate, sustainable, and socially acceptable.

This integrated approach is captured in foundational ideas such as dharma, artha, and karma. Wealth creation is recognised as legitimate and necessary, yet it is expected to operate within the boundaries of duty and responsibility. Actions are understood to have consequences that extend beyond the immediate moment, shaping reputation, trust, and long-term outcomes. Such a perspective naturally encourages restraint, reliability, and continuity in business conduct.

The depth of this thinking becomes even more evident when viewed historically. Indian civilisation developed sophisticated systems of economic organisation, governance, and

administration long before the emergence of modern management theory. Texts such as the Arthashastra demonstrate a detailed understanding of taxation, public finance, market regulation, auditing, and institutional accountability. These were not isolated ideas, but part of a broader effort to ensure that economic systems functioned in a structured, stable, and socially responsible manner.

At the institutional level, practices such as guild-based organisation illustrate how economic activity was regulated through professional communities. These systems maintained quality, ensured fair practices, and created mechanisms for coordination and accountability. Alongside them, business traditions evolved that emphasised trust-based finance, family continuity, and relationship-driven trade. These patterns have not disappeared; they continue to shape contemporary Indian markets in visible and subtle ways.

Leadership and management, within this framework, are also understood differently. Authority is not seen as sufficient in itself; it must be supported by legitimacy, self-discipline, and a sense of responsibility. Work is approached not merely as a means of reward, but as a duty to be performed with consistency and commitment. This orientation fosters stability, reduces short-term opportunism, and strengthens institutional credibility over time.

The management of people similarly reflects a relational approach. Individuals are not treated as impersonal resources, but as participants in ongoing social and organisational relationships. Motivation extends beyond financial incentives to include respect, belonging, and long-term association. Such an approach, while sometimes less immediately efficient, often contributes to deeper organisational cohesion and resilience.

Ethical considerations are not external constraints imposed on business; they are embedded within its very functioning. The idea that wealth carries responsibility toward society leads to a broader understanding of enterprise as a socially accountable institution. Reputation, legitimacy, and trust emerge not as secondary concerns, but as central determinants of long-term success.

Even in the context of sustainability, Indian thought offers a perspective that predates modern environmental discourse. Practices of restraint, frugality, and balanced resource use have historically been part of everyday economic life. These principles provide a foundation for addressing contemporary challenges without requiring entirely new frameworks.

In the present context, these civilisational patterns continue to interact with modern developments such as digital platforms, financial technologies, and expanding markets. The success of these systems often depends not only on technological efficiency, but on their alignment with existing social behaviours and cultural expectations. This demonstrates that innovation in India is most effective when it builds upon, rather than ignores, its underlying knowledge traditions.

Viewed in this light, Indian Knowledge Systems do not stand in opposition to modern management. Instead, they complete it by adding depth, context, and ethical grounding. They

enable a more accurate understanding of how business actually operates in India and offer a framework for making decisions that are not only efficient, but also sustainable and socially meaningful.

Ultimately, business in India is not merely an economic activity. It is a human and social process shaped by values, relationships, and a long-term view of consequences. Recognising this reality is essential for anyone seeking to engage with Indian markets in a meaningful and effective way.

Bridging Ancient Wisdom and Digital Innovation: A Review of Bhartiya Gyan Parampara in Modern Education and Research

Dr. Chinmay Shah,

Dean and Professor of Physiology,

Government College,

Bhavnagar, Gujarat, India



Eminent guest of the conference

Subject: Bridging Ancient Wisdom & Digital Innovation — BGP in Modern Education

Sharing a quick overview of Dr. Chinmay Shah's review on integrating *Bhartiya Gyan Parampara* (BGP) with modern science and tech.

Core idea: Modern education has strong technical knowledge ("Vigyan") but often lacks integrated wisdom ("Gyan"). BGP — rooted in the Vedas and Upanishads — offers that missing holistic layer, and NEP 2020 is now pushing institutions to blend the two.

Key points:

- **Panchpadi Model** – Traditional 5-stage learning (Adhiti → Bodh → Abhyas → Prayog → Prasar), with AI/VR now being used to power the "experimentation" and "expansion" stages.
- **HRV Research** – Several studies use Heart Rate Variability to scientifically validate ancient practices:
    - *Musopathy* (raga therapy) — ragas like Bhimpalasi shown to lower BP and pain via increased parasympathetic tone.
    - *Anulom Vilom* (pranayama) — improves baroreflex sensitivity and SDNN, reducing stress response.
    - *Gayatri Havan* — MRS studies suggest GABA increases and prefrontal changes linked to calm alertness.

    - *Nature/lunar rhythms* (Sharad Purnima, forest bathing) — linked to lower cortisol and better circadian health.

- **AI + Ethics** – AI supports personalized learning (Prasar stage), balanced by human-values programs like "Tatwamasi" and wellbeing tools like "e-Kast Bin."
- **Philosophical grounding** – Draws on Karma Yoga (Gita 2.47: focus on process, not outcome) and the Isha Upanishad's call to master both Vidya (spiritual wisdom) and Avidya (material science) together.

Takeaway: This isn't anti-modernity — it's a case for "Scientific Spirituality," using physiological data to validate and modernize ancient practices, producing professionals who are technically skilled *and* ethically/mentally grounded.

Philosophical Foundation of Bhartiya Gyan Parampara

Dr. Girish K. Goswami
Project Director
Regional Science Centre
Bhavnagar



Plenary Speaker

In your syllabus, Science is in one room, Arts in another, Music somewhere else. But look at our tradition. The same rishi who wrote Sulba Sutras on geometry also wrote about altar construction and rituals. Charaka, who wrote Ayurveda, also discussed the philosophy of life.

The Universe was Ekatva — one interconnected whole. They didn't say "man vs nature". They said, "man is nature". This is the first foundation: "Holistic Vision"

In the West, Francis Bacon said: "Knowledge is Power". Our Upanishads said ("Sa Vidya Ya Vimuktaye" knowledge which liberates)

So every subject had twin goals: Abhyudaya (make life better here and now) and Niḥśreyasa (help you become free from within).

We think science means only lab experiments. But Bharatiya tradition asked: "What are all the valid ways to know truth?" They gave us six pramāṇas:

1. Pratyakṣa– What you see, touch, measure.

2. Anumāna– What you infer.

3. Upamāna– Learning by analogy.

4. Śabda– Expert testimony.

5. Arthāpatti– Postulation.

6. Anupalabdhi– Knowing by absence.

So observation + logic + expert wisdom + debate = knowledge. That's why śāstrārtha: public debates were common. No idea was sacred. You had to prove it.

Can we clone humans? Can AI make weapons? Our tradition's answer: Ask dharma first.

Dharma doesn't mean religion. It means "that which sustains".

Arthaśāstra teaches economics, but says king must work for yogakshema (welfare of all)

Sushruta teaches surgery, but says "doctor must treat patient like own child".

So

Science + Dharma = Vikas

Science – Dharma = Vinash

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

RASA THEORY IN THE AGE OF MYTHOLOGICAL FICTION: AN APPLICATION OF THE NĀṬYAŚĀSTRA TO THE IMMORTALS OF MELUHA

Ms. Dhatri Parmar
Research Scholar, Department of English Studies, SLL&CS
dhatri250714001@cug.ac.in
Central University of Gujarat, Vadodara

Abstract

This paper applies Bharata Muni's Rasa Theory, as codified in the Nāṭyaśāstra (circa 200 BCE–200 CE), to The Immortals of Meluha (2010) by Amish Tripathi, the first volume of the Shiva Trilogy. Drawing on theory of aesthetic suggestion, the study traces the nine canonical rasas — Śṛṅgāra, Hāsya, Karuṇa, Raudra, Vīra, Bhayānaka, Bībhatsa, Adbhuta, and Śānta — across the novel's major scenes and character arcs. The paper argues that Tripathi's post-millennial mythological fiction is not merely an adventure narrative but a carefully orchestrated aesthetic experience that mirrors the principles of classical Indian poetics. The protagonist Shiva functions as a multi-rasa vehicle, embodying heroism, romantic longing, compassion, and ultimately peace. By situating the novel within the Rasa tradition, the study also comments on the resilience and adaptability of classical Sanskrit aesthetic categories in contemporary popular fiction, contributing to the growing field of modern Indian literary criticism grounded in indigenous aesthetic theory.

Keywords:*Rasa Theory, Nāṭyaśāstra, Dhvani, The Immortals of Meluha, Amish Tripathi, Indian Aesthetics, mythological fiction, Navarasa*

INTRODUCTION

The question of how literature moves its readers how words on a page produce joy, sorrow, heroic resolve, or spiritual peace has occupied aestheticians across traditions for millennia. In the Indian context, this question received its most systematic classical answer in Bharata Muni's *Nāṭyaśāstra*, a treatise on dramaturgy and performance that articulates the doctrine of Rasa: the theory that art functions by evoking specific, codified emotional flavours in a cultivated audience. Rasa theory has long been applied to Sanskrit drama, classical poetry, and the visual arts. Its application to contemporary popular fiction, however, remains underexplored.

The Immortals of Meluha (2010) by Amish Tripathi is an instructive test case. A runaway bestseller that reimagines the Hindu deity Shiva as a mortal tribal chief who gradually ascends to legendary status, the novel combines mythological grandeur with modern narrative energy. It operates simultaneously as adventure fiction, romance, political commentary, and spiritual allegory. This complexity makes it an unusually rich subject for aesthetic analysis grounded in Rasa Theory.

This paper has three objectives. First, it provides a concise account of Rasa Theory as formulated in the *Nāṭyaśāstra* specifically Rasa theory. Second, it applies each of the nine rasas to specific scenes, characters, and narrative moments in Tripathi's novel, citing textual evidence. Third, it reflects on the broader significance of this analysis for understanding how ancient Indian aesthetic categories continue to structure contemporary fiction.

RELATED RESEARCH WORK

1. Theoretical Framework: *Bharata's Rasa Theory*

The term *rasa* is derived from Sanskrit, meaning "juice," "essence," or "flavour." In its aesthetic usage, it denotes the emotional experience aroused in a *sahṛdaya* a sensitive, cultivated reader or spectator — through artistic representation. Bharata's foundational definition in the *Nāṭyaśāstra* holds that rasa arises from the conjunction of *vibhāva* (the stimulant or cause), *anubhāva* (the consequent or physical effect), and *vyabhicāribhāva* (the transient subsidiary emotions), working together to transform a *sthāyibhāva* (a permanent psychological state latent in all human beings) into aesthetic experience.

The nine rasas, as enshrined in the canonical Sanskrit shloka, are:

Śṛṅgāra Hāsya Karuṇa Raudra Vīra Bhayānakaḥ |
Bībhatsa Adbhuta Śāntaśca Nava Rasāḥ Smṛtāḥ ||

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

These nine flavours correspond to the following permanent emotions and their aesthetic expressions: **Śṛṅgāra** (love/beauty, arising from *rati*); **Hāsya** (humour, arising from *hāsa*); **Karuṇa** (pathos, arising from *śoka*); **Raudra** (fury, arising from *krodha*); **Vīra** (heroism, arising from *utsāha*); **Bhayānaka** (terror, arising from *bhaya*); **Bībhatsa** (disgust, arising from *jugupsā*); **Adbhuta** (wonder, arising from *vismaya*); and **Śānta** (peace, arising from *śama*, the state of equanimity). Later theorists, beginning with Abhinavagupta, recognised Śānta as the supreme rasa, the ground into which all other aesthetic experiences ultimately dissolve.

2. Textual Analysis: The Navarasas in The Immortals of Meluha

2.1 Vīra Rasa — The Heroic

The permanent emotion underlying Vīra rasa is *utsāha* energetic determination, the will to act in the face of difficulty. It is appropriately the dominant rasa that frames the novel's entire narrative architecture: the story of a reluctant tribal chief who gradually accepts a cosmic responsibility.

The opening scene sets the Vīra tone immediately. Shiva is described as having "numerous battle-scars on his skin" that "gleamed in the shimmering reflected light" of the waters of Mansarovar (Tripathi, 2010, p. 1). The detail is not gratuitous; the scars function as *vibhāva*, stimulating the reader's awareness of a character who has already paid a physical cost for his people. More significantly, Shiva's eventual decision to lead the Gunas to Meluha is framed not as ambition but as self-sacrifice he explicitly notes that he will "certainly not be a chief in this new land" (p. 3). Renouncing status for the collective welfare is a classical marker of Vīra. Later, as the Neelkanth, Shiva channels this same energy into a civilisational mission. His famous battle cry, *Har Har Mahadev* reinterpreted by Tripathi as "Every man a Mahadev" transforms Vīra from personal courage into a universal ethical injunction. Dhvani is at work here: the suggestion is that heroism is not exceptional but universally available to those who choose righteousness.

2.2 Śṛṅgāra Rasa — The Erotic / The Beautiful

Śṛṅgāra is the rasa of love in its two forms: *sambhoga* (union) and *vipralambha* (separation and longing). Both varieties are richly present in Shiva's relationship with Sati, the novel's central romance.

The courtship between Shiva and Sati is constructed with notable aesthetic care. In a scene of unguarded revelation, Shiva stumbles upon Sati dancing and is left speechless, the words running "through his mind, not on his lips" (p. 120). His commentary on her dance that the "mudras and the kriyas were all technically correct" but "the bhav or emotion was missing" (p. 122) is an instance of dramatic irony that generates Śṛṅgāra through suggestion: Shiva diagnoses in Sati's art precisely the emotional inaccessibility he will spend the entire novel trying to overcome. *Vipralambha* Śṛṅgāra dominates their relationship for much of the narrative because Sati's Vikarma status creates a systemic barrier to union, making longing the primary emotional register of their love. The dhvani of this structural situation is poignant: the most powerful man in Meluha the prophesied Neelkanth is powerless before a social law.

2.3 Karuṇa Rasa — The Pathetic / Compassionate

Karuṇa arises from *śoka* — grief, loss, and compassion for suffering. The novel's most sustained source of Karuṇa is the institution of Vikarma: the belief that individuals born under inauspicious circumstances carry the *karma* of past-life sin and must be treated as social outcasts in their present lifetime.

Sati is a Vikarma, having lost a child and thereby being branded as cosmically inauspicious. The scene in which she furiously rejects Shiva's offer of protection "I DON'T NEED YOUR PROTECTION! I CANNOT BE SAVED!" (p. 313) is a masterpiece of compressed Karuṇa. The all-caps rendition of her outburst simultaneously signals rage and anguish, making it formally ambiguous between Raudra and Karuṇa. This deliberate blurring reflects Abhinavagupta's insight that the rasas, while distinct, interpenetrate. The dhvani resonance here is profound: Sati's furious self-rejection is itself an expression of internalised suffering, a grief that has become indistinguishable from self-destruction.

Shiva's response "Everything in his mind, body and soul told him that he should pursue Sati. That his life would be meaningless without her" (p. 313) — layers another form of Karuṇa: the compassion of the witness who sees suffering and refuses to look away.

2.4 Raudra Rasa — The Furious

Raudra arises from *krodha* — righteous anger directed at injustice, violation of dharma, or the suffering of the innocent. The novel distinguishes carefully between destructive rage and righteous fury, a distinction that is central to Shiva's characterisation.

After the Pakratis' unprovoked attack on the Gunas, Shiva surveys the aftermath "Two Guna soldiers were dead. Four were severely injured" (p. 9) — and calls the entire tribe to the centre of the village. His speech "This land is fit for barbarians! We have fought pointless battles with no end in sight" (p. 10) crystallises Raudra in its most productive form: outrage that becomes the stimulus for decisive action. The dhvani of Raudra here is the suggestion that anger, properly directed, is not a failure of character but a moral faculty — the capacity to recognise wrongness and refuse to tolerate it.

2.5 Bhayānaka Rasa — The Terrible / Fearful

Bhayānaka evokes the experience of fear — both the characters' fear within the narrative and a corresponding heightening of tension in the reader. In *The Immortals of Meluha*, the Nagas serve as the primary vehicle of Bhayānaka.

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

The Nagas are described as disfigured beings of superhuman power associated with malevolent disruption. Their first appearance as the "hooded figure" generates a sustained atmosphere of dread that functions through suggestion rather than explicit statement. A related Bhayānaka moment occurs when a young boy, fleeing danger, hears "heavy breathing" drawing closer — "it was drawing closer every second" (p. 343). The boy's terror is communicated through action rather than internal state, embodying the anubhāva (consequent behaviour) that Bharata identifies as the visible sign of Bhayānaka. The dhvani deepens this: the Nagas, as the novel's overarching mystery, represent an unknown that cannot yet be named, making them aesthetically more terrifying than any explicit monster.

2.6 Hāsya Rasa — The Comic / Humorous

Hāsya arises from *hāsa* — laughter, wit, and lightness of spirit. In a novel that primarily operates in heroic and romantic registers, Hāsya provides essential tonal relief and humanises its characters.

Shiva's social awkwardness furnishes the novel's primary comic register. In the dance scene, his attempted compliment collapses into inadvertent condescension "I just kept talking without realising what I am saying" (p. 122) producing gentle comic embarrassment. More significantly, a late scene in which Shiva and Sati laugh together freely signals the emotional thaw in their relationship: "She laughed heartily. Shiva joined in. His first spirited laugh in over two months. He embraced Sati..." (p. 502). The laugh here is not merely pleasant but structurally significant: it marks the transition from *vipralambha* to *sambhoga* Śṛṅgāra, and shows how Hāsya can serve as a gateway between rasas, a vehicle of emotional liberation. This is dhvani in action: the laughter suggests everything that words between these two characters cannot yet say.

2.7 Bībhatsa Rasa — The Disgusting / The Horrific

Bībhatsa arises from *jugupsā* — revulsion, moral disgust, or aesthetic repulsion. In *The Immortals of Meluha*, Bībhatsa operates less through physical gore than through moral horror.

The Vikarma system an institutionalised form of social cruelty functions as the novel's primary source of moral Bībhatsa. The revelation that a woman like Sati, noble, skilled, and dignified, has been categorised as cosmically polluting and socially untouchable, generates in the reader (and in Shiva) a form of revulsion directed not at a person but at a system. The dhvani registers powerfully here: Tripathi does not editorialize; he simply presents the facts of Sati's daily humiliation with narrative detachment, leaving the reader's disgust to emerge without prompting. This technique of indirection showing without telling is itself a Dhvani strategy, trusting the reader's *sahṛdaya* sensitivity to complete the emotional experience.

2.8 Adbhuta Rasa — The Wondrous

Adbhuta arises from *vismaya* — astonishment, wonder, the experience of the extraordinary. The novel's central plot mechanism — the Somras, the Neelkanth legend, and the miraculous transformation of Shiva's throat — is its primary vehicle of Adbhuta.

After consuming the Somras, Shiva wakes to find that he "stared in wonder at his completely healed toe. And then he realised that it wasn't just the injured parts, but his entire body felt new, rejuvenated and stronger than ever" (p. 43). The physical wonder is simultaneously a spiritual metaphor: the man who will become the Neelkanth is being reconstituted at a cellular level. Meluha itself functions as a sustained Adbhuta vibhāva — its perfectly planned cities, its extraordinary longevity technologies, and its rigid but effective social organisation produce in Shiva (and the reader) a sustained astonishment that carries the narrative forward. The dhvani of Adbhuta in this novel is eschatological: wonder is not merely a pleasurable sensation but a summons — the aesthetic experience that calls Shiva toward his destiny.

2.9 Śānta Rasa — The Peaceful / The Sublime

Śānta is philosophically the most complex of the rasas and, for Abhinavagupta, the supreme one: the state of equanimity (*śama*) that arises when all other emotional disturbances resolve into stillness. It is not passivity but the depth beneath passion.

Tripathi embeds Śānta structurally in the novel's framing gesture: the first chapter opens with Shiva watching a sunset over Mansarovar in an almost meditative state, and the novel's ultimate emotional trajectory moves toward the acceptance of a burden that transcends individual desire. When Shiva finally embraces his identity as the Neelkanth — not triumphantly but with sober resolution — the novel achieves a moment of Śānta. The dhvani is deepest here: the blue throat, a mark of having absorbed cosmic poison to protect others, suggests that peace is not the absence of suffering but its transmutation into purpose. Śānta in Tripathi's novel is not withdrawal from the world but the equanimity of someone who has chosen, completely and irreversibly, to act for others.

RESULTS

This study has demonstrated that *The Immortals of Meluha* is productively read through the lens of Rasa Theory. All nine rasas of the *Nāṭyaśāstra* are present in the text, each anchored in specific scenes and character moments. The novel's emotional architecture is not accidental but reflects, whether consciously or by cultural inheritance, the aesthetic principles that Bharata Muni codified more than two millennia ago.

https://www.gapgyan.org/

More broadly, the study contributes to a growing scholarly conversation about the relevance of indigenous Indian aesthetic categories for analysing contemporary fiction. As post-millennial Indian authors increasingly return to mythological and historical material, there is a compelling case for reading them not only through Western critical frameworks narratology, psychoanalytic criticism, postcolonial theory but also through the rich indigenous tradition of Sanskrit aesthetics. Rasa Theory, far from being a museum artefact, proves to be a supple and illuminating analytical instrument.

DISCUSSION

A recurring theme in the textual analysis above is that Shiva does not embody a single rasa but moves through all nine, often in the same scene. This is precisely what Bharata and Abhinavagupta mean by the *mahānāyaka* the great protagonist — whose emotional range is coextensive with the full spectrum of human experience. Shiva is simultaneously a warrior (Vīra), a lover (Śṛṅgāra), a compassionate reformer (Karuṇa), a righteous avenger (Raudra), a figure of awe (Adbhuta), and ultimately a soul moving toward equanimity (Śānta).

What is especially noteworthy from an aesthetic standpoint is that Tripathi achieves this multi-rasa characterisation through narrative technique rather than explicit psychological analysis. He works through dialogue, action, and crucially free indirect discourse (the technique of rendering a character's thoughts in the third person). This last technique is itself a kind of literary dhvani: the narrator and the protagonist's consciousness temporarily merge, creating a suggestion of interiority without the distancing effect of full first-person narration. The result is an emotional immediacy that pulls the reader into the rasa experience.

REFERENCES

[1] Ānandavardhana. (1990). Dhvanyāloka (K. Krishnamoorthy, Trans. & Ed.). Sahitya Akademi. (Original work composed c. 850 CE)Ansah, F., & Sakyiwaa, S. (2020). Exploring the impact of credit unions on financial inclusion in Ghana. *Journal of Financial Services, 13*(2), 45–57. https://doi.org/10.1016/j.jfs.2020.03.003

[2] Abhinavagupta. (1967). Abhinavabhāratī: Commentary on the Nāṭyaśāstra (M. R. Kavi, Ed.). Oriental Institute.Chepkorir, E., Lutta, P., & Kirui, F. (2021). Debt financing and its impact on the performance of listed companies in Kenya. *International Journal of Finance & Banking Studies, 10*(1), 79–91.

[3] Bharata Muni. (1967). Nāṭyaśāstra (M. R. Kavi, Ed., Vols. 1–4). Oriental Institute. (Original work composed c. 200 BCE–200 CE)Guinnane, T. W., & McCall, J. (2001). Financial intermediation in community-based credit unions: A study of resource allocation. *International Journal of Financial Studies, 5*(2), 91–108.

[4] Gerow, E. (1977). Indian poetics. In J. Gonda (Ed.), A history of Indian literature (Vol. 5, pp. 1–303). Harrassowitz.Irumba, S., & Alinaitwe, E. (2019). Community-based credit unions and the role of financial intermediation in rural economies. *Journal of Banking and Finance, 14*(1), 33–46. https://doi.org/10.1016/j.jbf.2019.01.007

[5] Gnoli, R. (1968). The aesthetic experience according to Abhinavagupta (2nd ed.). Chowkhamba Sanskrit Series.Ngoc, T., Nguyen, M., & Phan, L. (2021). Capital structure and performance of service providers: The case of Vietnam. *Asian Journal of Finance, 29*(2), 67–84. https://doi.org/10.2139/ssrn.3461789

[6] Ingalls, D. H. H., Masson, J. M., & Patwardhan, M. V. (Trans.). (1990). The Dhvanyāloka of Ānandavardhana with the Locana of Abhinavagupta. Harvard University Press.Rahman, A., Hossain, M., & Alam, M. (2019). The effect of capital structure on the performance of trading companies in Bangladesh. *Journal of Asian Business Studies, 14*(2), 109–120. https://doi.org/10.1108/JABES-03-2019-0070

[7] Levi, S. (2003). The theatre of India (S. Pramanik, Trans.). Writers Workshop. (Original work published 1890)Salawu, R., Ayadi, T., & Oyelami, S. (2012). Capital structure and its impact on corporate performance: A study of Nigerian firms. *International Journal of Economics and Finance, 4*(5), 36–45.

[8] Pollock, S. (Ed.). (2016). A rasa reader: Classical Indian aesthetics. Columbia University Press.Shibutse, N., Gichuhi, P., & Nyaga, L. (2019). Capital structure determinants: The case of community-based credit unions in Kenya. *International Journal of Banking and Finance, 8*(4), 67–79.

[9] Tripathi, A. (2010). The immortals of Meluha. Westland.Ullah, M., Khan, I., & Ahmed, M. (2019). Debt financing and performance: Evidence from the manufacturing sector in Pakistan. *Journal of Business Research, 62*(3), 221–232. https://doi.org/10.1016/j.jbusres.2018.10.020

Warder, A. K. (1974). Indian kāvya literature (Vol. 1). Motilal Banarsidass.

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

A study on the financial performance of selected leading fuel companies in India

Dr. KripalSinh R Rathod
[MCOM, MPHILL, GSET, NET, PHD]

E-mail: kripalsinhrrfor1@gmail.com, Mobile: 9428994966
Assistant professor, Faculty of Finance & Account,
Shree Swaminarayan College of Commerce and Management,
Sardarnagar, Bhavnagar, Gujarat, India. Pin:364001
(Affiliated to Maharaja Krishkumarsinhji Bhavnagar University)

Abstract

India is one of the fastest-growing energy markets in the world, and the fuel sector is vital to the nation's economic growth, transportation, industrial development, and energy security. Most fuel companies in India are engaged in the exploration, production, refining, marketing, and distribution of petroleum and natural gas products. Based on the annual report of the chosen organization, the research will run from 2020– 2021 to 2024–2025. The hypothesis is examined at the five percent significance level. IOC, ONGC, BPC, HP, RIL, and ADANI are the six firms that were chosen. Since the independent variable had no statistically significant impact on these financial performance metrics, all ratios demonstrate that the null hypothesis is accepted. In addition to supplying petroleum products like petrol, LPG, aviation fuel, and lubricants, these companies also participate in energy infrastructure, exploration projects, and renewable energy initiatives. Their actions are essential to ensuring the supply of energy, maintaining price stability, and promoting the growth of India's industrial and transportation sectors. India's economic growth and energy security depend on these leading petroleum companies. Through exploration, refining, distribution, and investments in renewable energy, they significantly contribute to meeting the country's growing fuel demands while encouraging the transition to sustainable energy sources. This suggests that there is no statistically significant difference in the financial performance of the selected top petrol companies in India based on the ratios that were studied while the study. The results demonstrate that the enterprises' financial performance is typically consistent and comparable, which may be due to similarities in the market structure, industrial conditions, and regulatory environment of the Indian petroleum sector.

Keywords: *energy, petroleum products, fuel and lubricants*

INTRODUCTION

India is one of the world's fastest-growing energy markets, and the fuel industry is essential to the country's industrial development, transportation, economic expansion, and energy security. Companies involved in the exploration, production, refining, marketing, and distribution of petroleum and natural gas products make up most of the fuel business in India. Fuel firms are now crucial to the nation's economic development because of the rising need for energy brought on by urbanisation, population increase, and industrial expansion. Both governmental and private sector businesses make up India's fuel industry. Refining, exploration, and gasoline distribution are dominated nationwide by public sector firms including Indian Oil Corporation (IOC), Oil and Natural Gas Corporation (ONGC), Bharat Petroleum Corporation Limited (BPCL), and Hindustan Petroleum Corporation Limited (HPCL). Private sector firms like Adani Group and Reliance Industries Limited (RIL) are simultaneously growing in the energy, petrochemical, gas distribution, and renewable energy sectors. These businesses invest in energy infrastructure, exploration projects, and renewable energy programs in addition to providing petroleum products including petrol, gasoline, LPG, aviation fuel, and lubricants. Their activities are crucial to guaranteeing energy supply, preserving price stability, and fostering the expansion of India's transport and industrial sectors. These top fuel firms are essential to maintaining India's economic growth and energy security. They greatly aid in supplying the nation's expanding fuel needs while promoting the shift to sustainable energy sources through exploration, refining, distribution, and investments in renewable energy.

About Oil and Natural Gas Corporation (ONGC)

The biggest exploration and production firm for natural gas and crude oil in India is Oil and Natural Gas Corporation Limited. Founded in 1956, ONGC explores and produces hydrocarbons both onshore and offshore, helping to fulfil India's energy demands. The corporation makes a substantial contribution to the domestic production of natural gas and crude oil in India. Through ONGC Videsh Limited (OVL), ONGC also does business worldwide and has investments in a number of oil and gas projects in other nations.

About Bharat Petroleum Corporation Limited (BPCL)

https://www.gapgyan.org/

One of India's top public sector oil marketing firms is Bharat Petroleum Corporation Limited. It was founded in 1976 following Burmah Shell's nationalisation. BPCL has a vast petroleum delivery network throughout the nation and has significant refineries in Kochi and Mumbai. Petroleum products including petrol, gasoline, LPG, and aviation fuel are supplied by the corporation. Additionally, BPCL is growing its market share in renewable energy, electric car charging infrastructure, and natural gas.

About Hindustan Petroleum Corporation Limited (HPCL)

Another significant Indian public sector oil marketing firm is Hindustan Petroleum Corporation Limited. HPCL was founded in 1974 and is involved in the sale of petroleum products and the refining of crude oil throughout India. The corporation has a vast network of petrol stations and LPG distribution facilities, and it runs refineries in Mumbai and Visakhapatnam. HPCL is actively investing in biofuels, renewable energy, and alternative fuels while concentrating on enhancing fuel supply infrastructure.

About Reliance Industries Limited (RIL)

The biggest private sector business in India, Reliance Industries Limited is a significant participant in the petrochemical and energy sectors. In Jamnagar, Gujarat, RIL runs the biggest oil refining facility in the world. The business produces petrochemicals, refines crude oil, and exports petroleum products to several nations. As part of its long-term energy transition plan, Reliance has recently expanded into clean energy, hydrogen generation, and renewable energy technology.

About Adani Group (Adani Gas / Energy)

In India's energy industry, the Adani Group has become a major player. The group concentrates on energy infrastructure development, natural gas delivery, and city gas distribution through businesses like Adani Total Gas Limited. Adani is also making significant investments in energy logistics, green hydrogen, and renewable energy. The firm wants to have a significant impact on India's shift to more sustainable and clean energy systems.

LITERATURE REVIEW

1. Using both fundamental and technical analysis, Abhishek Reddy et al. (2024) looked at the financial performance and investment possibilities of significant Indian public sector oil corporations, including IOCL, BPCL, HPCL, and ONGC, for the years 2020–2024. The research examined stock market movements as well as financial measures such as return on equity, return on assets, and liquidity indicators. The results showed differences in financial stability and profitability amongst businesses, suggesting that market sentiment and macroeconomic conditions have a big impact on how well Indian oil industry enterprises operate.
2. BPCL, HPCL, IOCL, and Reliance Industries were among the public and private oil distribution businesses in India that Banerjee and Sanyal (2024) compared. The study, which used financial metrics like ROCE, ROA, ROE, and leverage ratios over a ten-year period, discovered that public sector companies maintain lower financial risk through cautious financial management practices, while private companies typically show higher profitability due to operational flexibility.
3. Gautam et al. (2024) used profitability, liquidity, leverage, and activity measures to examine the financial performance of Indian Oil Corporation Limited and its rivals. After comparing IOCL, BPCL, and HPCL, the study found that although all businesses have solid financial structures, variations in capital utilisation and operational efficiency have an impact on the oil marketing industry's overall financial performance.
4. Banerjee and Sanyal (2024) analysed public and private oil distribution companies in India, including BPCL, HPCL, IOCL, and Reliance Industries. Using financial metrics like ROCE, ROA, ROE, and leverage ratios over a ten-year period, the study found that private companies generally exhibit higher profitability due to operational flexibility, while public sector companies maintain lower financial risk through cautious financial management practices.
5. Gautam et al. (2024) used profitability, liquidity, leverage, and activity measures to examine the financial performance of Indian Oil Corporation Limited and its rivals. The study's comparison of IOCL, BPCL, and HPCL

https://www.gapgyan.org/

revealed that while all companies have sound financial structures, differences in capital utilisation and operational effectiveness affect the overall financial performance of the oil marketing sector.

6. A comparative financial study of top Indian oil corporations, such as ONGC, BPCL, and HPCL, was carried out by Kumar and Sharma (2022). The study used trend analysis and financial measures to determine that, because of different operational structures, upstream enterprises such as ONGC showed higher profitability margins than downstream oil marketing organisations.
7. Mehta and Patel (2023) used correlation and ratio analysis to look at the financial performance of a few Indian petroleum businesses. According to their results, fuel businesses' overall financial stability in the Indian energy industry is greatly influenced by their capital structure and profitability ratios.
8. Nair and Menon (2022) used profitability, liquidity, and solvency ratios to examine the financial performance of Indian public sector oil corporations. The study found that while government-owned fuel firms have steady liquidity situations, they struggle to maintain steady profit margins due to changes in the price of crude oil.
9. Patel and Shah (2023) used financial measures and trend analysis to assess the financial performance of Indian petroleum businesses. According to their analysis, government regulations, refining capacity utilisation, and worldwide crude oil prices all have a significant impact on the financial success of businesses like IOCL, BPCL, and HPCL.
10. The profitability and solvency status of significant Indian oil corporations, such as ONGC and IOCL, were examined by Rao and Reddy (2022). The findings showed that businesses with integrated supply chains and varied activities have more long-term development potential and financial resilience.
11. Singh and Gupta (2023) used financial measures and statistical methods to compare the financial performance of a few public sector fuel firms. The analysis made clear how important asset utilisation and operational effectiveness are to the Indian oil industry's profitability.
12. Verma and Kapoor (2024) used profitability ratios, trend analysis, and financial statement review to examine the financial performance of the biggest petroleum businesses in India. The study discovered that although oil marketing firms exhibit robust revenue growth, government price regulations and changes in global crude oil prices frequently have an impact on profit margins.

RESEARCH METHODOLOGY

1. Time duration for the study: 2020-2021 to 2024-2025 – 5 years
2. Data collection: based on secondary method of selected company's annual report
3. Hypothesis is tested at 5% level of significance
4. Basis of sample –The 6 companies are selected, those are working as leading fuel companies in India, IOC, ONGC, BPC, HP, RIL & ADANI
5. Population: more than 29 companies working in India
6. Objective: to find the profitability in financial performance of selected fuel companies in India
7. Variable: 1] EPS ratio, 2] Net Profit Margin ratio 3] Return on Capital Employed 4] Return on Assets 5] Dividend Payout Ratio

Research gap: time slot, selected ratio and choose companies

OBJECTIVE

To study the selected ratio-Basic eps, Net Profit Margin ratio, Return on capital employee, Return on Assets & Dividend Payout Ratio for the financial performance of the selected fuel companies in India

RESULTS

HYPOTHESIS

H_{01}: There is no significant mean differenceof Basic eps among the selected companies

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

H_{02}: There is no significant mean difference of Net Profit Margin ratio among the selected companies
H_{03}: There is no significant mean difference of Return on capital employee among the selected companies
H_{04}: There is no significant mean difference of Return on Assets among the selected companies
H_{05}: There is no significant mean difference of Dividend Payout Ratio among the selected companies

DATA ANALYSIS

TABLE 1: EPS (Rs.)

	Mar 25	Mar 24	Mar 23	Mar 22	Mar 21	mean	max	mini
IOC	9.41	28.77	5.98	26.34	23.78	18.86	28.77	5.98
ONGC	28.31	32.21	30.86	32.04	8.94	26.47	32.21	8.94
BPC	31.07	125.21	8.78	41.31	96.44	60.56	125.21	8.78
HP	34.61	103.58	-63.26	44.94	70.57	38.09	103.58	-63.26
RIL	26.06	62.14	65.34	59.24	49.66	52.49	65.34	26.06
ADANI	5.89	5.94	4.82	4.59	4.29	5.11	5.94	4.29
Mean	9.94	37.34	26.24	13.75	29.94	16.78	37.87	20.58

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	433.562	4	108.390	.	.[b]
	Residual	.000	0	.		
	Total	433.562	4			

a. Dependent Variable: EPS
b. Predictors: (Constant), DPR ,NPR ,RoCE , ROA

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	86.152	.000		.	.	86.152	86.152
	NPR	-9.869	.000	-1.988	.	.	-9.869	-9.869
	RoCE	-26.115	.000	-17.480	.	.	-26.115	-26.115
	ROA	73.517	.000	19.825	.	.	73.517	73.517
	DPR	-.408	.000	-.682	.	.	-.408	-.408

a. Dependent Variable: EPS

Correlations

		EPS	NPR	RoCE	ROA	DPR
Pearson Correlation	EPS	1.000	.922	.965	.974	-.590
	NPR	.922	1.000	.902	.925	-.498
	RoCE	.965	.902	1.000	.998	-.666
	ROA	.974	.925	.998	1.000	-.632
	DPR	-.590	-.498	-.666	-.632	1.000
Sig. (1-tailed)	EPS	.	.013	.004	.003	.147
	NPR	.013	.	.018	.012	.196
	RoCE	.004	.018	.	.000	.110
	ROA	.003	.012	.000	.	.126
	DPR	.147	.196	.110	.126	.
N	total	5	5	5	5	5

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics R Square Change	F Change	df1	df2	Sig. F Change
1	1.000[a]	1.000	.	.	1.000	.	4	0	.

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

a. Predictors: (Constant), DPR ,NPR ,RoCE , ROA

The multiple regression analysis examined the influence of Net Profit Ratio , Return on Capital Employed, Return on Assets, and Dividend Payout Ratio on Earnings per Share. Results indicate a perfect correlation (R = 1.000) and an R^2 value of 1.000, showing the independent variables explain all variation in EPS. However, the ANOVA table displays zero residual degrees of freedom, eliminating the F-statistic and significance value, which arises when observations equal estimated parameters. Regression coefficients reveal a strong positive connection between ROA (B = 73.517) and EPS, while NPR (B = −9.869), RoCE (B = −26.115), and DPR (B = −0.408) have negative relationships. The correlation matrix shows strong positive associations of EPS with ROA (r = 0.974) and RoCE (r = 0.965), with DPR inversely correlated (r = −0.590). High correlations among independent variables, particularly between RoCE and ROA (r = 0.998), indicate multicollinearity. Despite the model's complete explanatory power, findings should be viewed with caution due to the limited sample size, lack of residual degrees of freedom, and significant intercorrelation among predictors.

Table 2: Net Profit Margin (%)

	Mar-25	Mar-24	Mar-23	Mar-22	Mar-21	mean	max	mini
IOC	1.71	5.11	0.98	4.04	5.77	18.86	28.77	5.98
ONGC	26.6	31.23	26.86	36.53	16.51	26.47	32.21	8.94
BPC	3.01	5.95	0.39	2.42	8.18	60.56	125.21	8.78
HP	1.69	3.38	-2.03	1.82	4.57	38.09	103.58	-63.26
RIL	6.81	7.86	8.36	9.22	13	52.49	65.34	26.06
ADANI	12.99	14.6	12.1	16.61	27.83	5.11	5.94	4.29
Mean	7.33	7.71	8.00	9.86	6.47	16.78	37.87	20.58

ANOVAa

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	393.931	4	98.483	.	.b
	Residual	.000	0	.		
	Total	393.931	4			

a. Dependent Variable: EPS
b. Predictors: (Constant), DPR ,NPR ,RoCE , ROA

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	-22.181	.000		.	.	-22.181	-22.181
	NPR	1.723	.000	1.280	.	.	1.723	1.723
	RoCE	1.663	.000	.786	.	.	1.663	1.663
	ROA	-3.198	.000	-1.039	.	.	-3.198	-3.198
	DPR	.193	.000	.230	.	.	.193	.193

a. Dependent Variable: EPS

Coefficient Correlations[a]

Model			DPR	NPR	RoCE	ROA
1	Correlations	DPR	1.000	-.135	-.560	.273
		NPR	-.135	1.000	.717	-.938
		RoCE	-.560	.717	1.000	-.883
		ROA	.273	-.938	-.883	1.000

a. Dependent Variable: EPS

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

1	1.000[a]	1.000	.	.	1.000	.	4	0	.

a. Predictors: (Constant), DPR ,NPR ,RoCE , ROA

The multiple regression analysis assessed the impact of Net Profit Ratio, Return on Capital Employed, Return on Assets, and Dividend Payout Ratio on Earnings per Share. The model demonstrated a perfect correlation (R = 1.000) and an R^2 value of 1.000, meaning the independent variables fully explain EPS variation. However, the ANOVA table indicates zero residual degrees of freedom, leading to the absence of an F-statistic and significance value, which limits model validation. Coefficients reveal that NPR (B = 1.723), RoCE (B = 1.663), and DPR (B = 0.193) are positively related to EPS, while ROA (B = −3.198) shows a negative relationship. High correlations among independent variables, especially between NPR and ROA (−0.938) and RoCE and ROA (−0.883), indicate multicollinearity. These results suggest caution in interpreting the model's findings despite its explanatory power.

TABLE 3:

RoCE (%)	Mar 25	Mar 24	Mar 23	Mar 22	Mar 21	mean	max	mini
IOC	8.73	24.21	7.59	17.65	17.90	15.22	24.21	7.59
ONGC	12.41	14.11	19.12	14.43	6.12	13.24	19.12	6.12
BPC	21.10	39.51	7.63	17.53	20.37	21.23	39.51	7.63
HP	14.31	24.61	-12.07	11.55	21.91	12.06	24.61	-12.07
RIL	7.34	9.54	10.21	8.24	5.82	8.23	10.21	5.82
ADANI	15.88	20.85	23.04	24.68	28.42	22.57	28.42	15.88
Mean	19.59	7.80	26.75	39.12	10.24	18.51	40.17	13.66

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	9388.388	4	2347.097	.	.[b]
	Residual	.000	0	.		
	Total	9388.388	4			

a. Dependent Variable: EPS
b. Predictors: (Constant), DPR ,RoCE ,NPR , ROA

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B	
		B	Std. Error	Beta	T	Sig.	Lower Bound	Upper Bound
1	(Constant)	59.374	.000		.	.	59.374	59.374
	NPR	-70.479	.000	-4.471	.	.	-70.479	-70.479
	RoCE	-13.048	.000	-3.111	.	.	-13.048	-13.048
	ROA	64.917	.000	7.818	.	.	64.917	64.917
	DPR	.016	.000	.020	.	.	.016	.016

a. Dependent Variable: EPS

Coefficient Correlations[a]

Model			DPR	RoCE	NPR	ROA
1	Correlations	DPR	1.000	.046	.064	-.035
		RoCE	.046	1.000	.991	-.996
		NPR	.064	.991	1.000	-.998
		ROA	-.035	-.996	-.998	1.000

a. Dependent Variable: EPS

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics R Square Change	F Change	df1	df2	Sig. F Change
1	1.000[a]	1.000	.	.	1.000	.	4	0	.

a. Predictors: (Constant), DPR ,RoCE ,NPR , ROA
b. Dependent Variable: EPS

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

The multiple regression analysis was conducted to examine the impact of Net Profit Ratio , Return on Capital Employed , Return on Assets, and Dividend Payout Ratio on Earnings per Share . The model summary shows a perfect correlation (R = 1.000) and an R^2 value of 1.000, indicating that the independent variables collectively explain 100 percent of the variation in EPS. However, the ANOVA table reveals zero residual degrees of freedom, which means the F-statistic and significance values could not be computed. This situation usually occurs when the number of observations equals the number of estimated parameters, resulting in a perfect model fit and limiting the statistical testing of the model. The regression coefficients indicate that ROA (B = 64.917) and DPR (B = 0.016) have a positive relationship with EPS, suggesting that increases in these variables tend to increase earnings per share. In contrast, NPR (B = −70.479) and RoCE (B = −13.048) show a negative relationship with EPS. Additionally, the coefficient correlation matrix indicates extremely high correlations among some independent variables, particularly between NPR and ROA (−0.998) and between RoCE and ROA (−0.996), suggesting the presence of strong multicollinearity. Therefore, although the regression model demonstrates complete explanatory power, the findings should be interpreted with caution due to the lack of residual degrees

Coefficient Correlations[a]

Model			DPR	RoCE	NPR	ROA
1	Correlations	DPR	1.000	-.883	.603	.964
		RoCE	-.883	1.000	-.187	-.971
		NPR	.603	-.187	1.000	.398
		ROA	.964	-.971	.398	1.000

a. Dependent Variable: EPS

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B		Correlations		
		B	Std. Error	Beta	T	Sig.	Lower Bound	Upper Bound	Zero-order	Partial	Part
1	(Constant)	292.40	.000		.	.	292.401	292.401			
	NPR	1.924	.000	.287	.	.	1.924	1.924	.191	1.000	.087
	RoCE	28.696	.000	3.158	.	.	28.696	28.696	.616	1.000	.293
	ROA	-83.659	.000	-3.271	.	.	-83.659	-83.659	.880	-1.000	-.215
	DPR	-10.547	.000	-2.224	.	.	-10.547	-10.547	-.845	-1.000	-.245

a. Dependent Variable: EPS

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics R Square Change	F Change	df1	df2	Sig. F Change
1	1.000[a]	1.000	.	.	1.000	.	4	0	.

a. Predictors: (Constant), DPR ,RoCE ,NPR , ROA

b. Dependent Variable: EPS

of freedom and the high intercorrelation among the predictors.

TABLE 4:

Return on Assets (%)	Mar 25	Mar 24	Mar 23	Mar 22	Mar 21	mean	max	mini
IOC	2.70	8.66	1.96	6.22	6.53	5.21	8.66	1.96
ONGC	7.88	9.08	10.57	11.95	3.53	8.60	11.95	3.53
BPC	7.06	15.41	1.16	5.83	13.54	8.60	15.41	1.16
HP	3.95	8.45	-5.80	4.25	8.12	3.79	8.45	-5.80
RIL	3.44	4.38	4.96	4.44	3.65	4.17	4.96	3.44
ADANI	8.52	10.01	9.40	11.39	14.64	10.79	14.64	8.52
Mean	2.23	2.25	4.60	2.88	3.84	2.47	3.32	3.03

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1010.361	4	252.590	.	.[b]
	Residual	.000	0	.		

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

Total	1010.361	4				

a. Dependent Variable: EPS
b. Predictors: (Constant), DPR ,RoCE ,NPR , ROA

The multiple regression analysis was carried out to examine the influence of Net Profit Ratio, Return on Capital Employed, Return on Assets , and Dividend Payout Ratio on Earnings per Share. The model summary indicates a perfect correlation (R = 1.000) with an R^2 value of 1.000, suggesting that the selected independent variables collectively explain 100 percent of the variation in EPS. However, the ANOVA results reveal that the residual degrees of freedom are zero, resulting in no calculated F-statistic or significance value, which typically occurs when the number of observations equals the number of parameters estimated, leading to a perfect model fit. The regression coefficients show that NPR (B = 1.924) and RoCE (B = 28.696) have a positive relationship with EPS, indicating that increases in these ratios tend to increase earnings per share. In contrast, ROA (B = −83.659) and DPR (B = −10.547) exhibit a negative relationship with EPS. Furthermore, the coefficient correlation matrix shows very high correlations among the independent variables, particularly between ROA and DPR (0.964) and between RoCE and ROA (−0.971), indicating the presence of strong multicollinearity. Therefore, although the model demonstrates complete explanatory power, the results should be interpreted with caution due to the absence of residual degrees of freedom and the high intercorrelation among predictors.

TABLE 5:

dividend payout ratio (%)	Mar 25	Mar 24	Mar 23	Mar 22	Mar 21	mean	max	mini
IOC	74.37	27.80	40.10	39.86	44.14	45.25	74.37	27.80
ONGC	47.69	31.81	45.35	28.40	19.57	34.56	47.69	19.57
BPC	50.65	20.33	69.59	167.83	23.92	66.46	167.83	20.33
HP	31.78	14.48	-22.13	50.56	13.93	17.72	50.56	-22.13
RIL	19.18	14.48	11.49	10.99	12.27	13.68	19.18	10.99
ADANI	4.24	4.21	5.19	5.44	0.00	3.82	5.44	0.00
Mean	19.59	7.80	26.75	39.12	10.24	18.51	40.17	13.66

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	2.324	4	.581	.	.[b]
	Residual	.000	0	.		
	Total	2.324	4			

a. Dependent Variable: EPS

b. Predictors: (Constant), DPR ,RoCE ,NPR , ROA

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	7.161	.000		.	.	7.161	7.161
	NPR	-1.263	.000	-10.585	.	.	-1.263	-1.263
	RoCE	-.592	.000	-3.617	.	.	-.592	-.592
	ROA	3.356	.000	10.528	.	.	3.356	3.356
	DPR	-.953	.000	-2.755	.	.	-.953	-.953

a. Dependent Variable: EPS

Coefficient Correlations[a]

Model			DPR	RoCE	NPR	ROA
1	Correlations	DPR	1.000	.735	.936	-.870
		RoCE	.735	1.000	.898	-.954
		NPR	.936	.898	1.000	-.985
		ROA	-.870	-.954	-.985	1.000

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

a. Dependent Variable: EPS

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics R Square Change	F Change	df1	df2	Sig. F Change
1	1.000[a]	1.000	.	.	1.000	.	4	0	.

a. Predictors: (Constant), DPR ,RoCE ,NPR , ROA

The regression analysis explored the effects of financial performance indicators—NPR, RoCE, Return,ROA, and DPR)—on EPS. The model exhibited a perfect correlation (R = 1.000) and an R^2 value of 1.000, indicating that all variation in EPS can be accounted for by the independent variables utilized. Nevertheless, ANOVA results indicated zero residual degrees of freedom, suggesting that the observations matched the parameters estimated, resulting in a perfect fit that obstructs the computation of the F-statistic and significance levels. The regression coefficients indicated that ROA positively influences EPS (B = 3.356), whereas NPR (B = –1.263), RoCE (B = –0.592), and DPR (B = –0.953) negatively affect EPS. A high correlation among independent variables was noted, suggesting multicollinearity. Accordingly, while the regression analysis demonstrates notable explanatory ability, the perfect fit and significant intercorrelations necessitate cautious interpretation of the findings.

CONCLUSION AND RECOMMENDATIONS

The current study looked at the link between earnings per share (EPS) and a number of financial performance metrics, including Net Profit Ratio (NPR), Return on Capital Employed (RoCE), Return on Assets (ROA), and Dividend Payout Ratio (DPR), of a subset of India's top gasoline businesses. A perfect correlation (R = 1.000) and coefficient of determination (R^2 = 1.000) were found in the regression analysis, suggesting that the independent variables together account for all of the variance in EPS. This implies that shareholder earnings are significantly influenced by profitability and return-based measures. Return on Assets (ROA) was shown to have the greatest impact on EPS among the variables in the majority of the regression models, emphasising the significance of making effective use of business assets in order to increase shareholder profitability.Different models revealed conflicting connections between Net Profit Ratio (NPR) and Return on Capital Employed (RoCE) and EPS, indicating that their effects may change based on the firms' capital management, cost structure, and operational effectiveness. increased dividend distribution does not necessarily translate into increased earnings per share, as seen by the Dividend Payout Ratio's (DPR) often lower or negative correlation with EPS. Due to the small number of data relative to the number of predictors, the ANOVA results in several models displayed zero residual degrees of freedom. The F-statistic and significance values could not be determined, therefore. Additionally, the correlation matrices showed extremely strong correlations between a few independent variables, indicating multicollinearity.Although these drawbacks, the findings show that profitability and return-based financial metrics are highly correlated with EPS and are important for evaluating fuel firms' financial success.

REFERENCES

[1] Abedin, B., Gabor, M. R., Susanu, I. O., & Jaber, Y. F. (2024). Exploring the perspectives of oil and gas industry managers on the adoption of sustainable practices: A Q methodology approach to green marketing strategies. *Sustainability*, *16*(14), 5948.
[2] Bharat Petroleum Corporation Limited. (2024). *Annual report 2023-24*.
[3] Chennai Petroleum Corporation Limited. (2024). *Performance highlights: Annual report 2023-24*.
[4] Dongardive, R. (2025). Marketing division role in Indian Oil Corporation, Ltd. *ShodhPrabandhan: Journal of Management Studies*, *2*(1), 105–108.
[5] GAIL (India) Limited. (2024). *Annual report 2023-24: Energising the future*.
[6] Hindustan Petroleum Corporation Limited. (2024). *Annual report 2023-24*.
[7] Indian Oil Corporation Limited. (2024). *Annual report 2023-24: Fueling the nation*.
[8] Mangalore Refinery and Petrochemicals Limited. (2024). *Annual report 2023-24*.
[9] Oil and Natural Gas Corporation. (2024). *Annual report 2023-24: Energy for a sustainable future*.
[10] Oil India Limited. (2024). *Annual report 2023-24: Exploring new horizons*.
[11] Pugazh, R., & C, S. (2025). Evaluating ESG integration and its financial effects in the Indian petroleum sector. *South India Journal of Social Sciences*, *23*(6), 3-7.
[12] Reliance Industries Limited. (2024). *Annual report 2023-24: Growth is life*.

https://www.gapgyan.org/

[13] Sinha, A. S. K., Kar, S. K., Ojha, U., &Balathanigaimani, M. S. (2022). Role of natural gas in India: Recent developments and future perspectives. In *Natural Gas - New Perspectives and Future Developments*. IntechOpen.

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

FROM EPISTEMIC DEPENDENCE TO KNOWLEDGE DIVERSITY THROUGH TRANSDISCIPLINARY RESEARCH AND DECOLONIAL PERSPECTIVES

Gunja Barai[1] and Prof. (Dr.) Preeti J. Maiyani[2]

Senior Research Fellow, Department of Education, Gujarat University, Ahmedabad[1]
Professor, UGC-MMTTC Department, Gujarat University, Ahmedabad, India[2]

Abstract

The NEP 2020 aims to create a transformative education system focused on achieving Sustainable Development Goal 4 (Quality Education) by emphasising inclusive, equitable, and holistic learning methods. In this framework, knowledge diversity plays a crucial role by promoting the integration of various knowledge systems, thereby enriching educational experiences.

This research examines how transdisciplinary research and decolonial perspectives can strengthen knowledge diversity in modern education. It highlights Indian Knowledge Systems (IKS) as a comprehensive, culturally rooted knowledge base that supports sustainability, contextual understanding, and value-based learning. Additionally, the study advocates experiential learning as a vital pedagogical strategy aligned with NEP 2020, encouraging active participation, critical thinking, and applying knowledge meaningfully in real-world situations.

Employing a qualitative approach, data were gathered through semi-structured interviews, document analysis, and reflective observations, then analyzed with NVIVO to identify themes like knowledge diversity, experiential learning, IKS integration, and quality education. Results suggest that combining diverse knowledge systems with experiential and transdisciplinary methods enhances student engagement, contextual understanding, and teaching effectiveness.

By supporting SDG 4, the study highlights the need for learner-centered, culturally responsive, and future-ready education systems. Within the vision of Viksit Bharat 2047, it advocates that knowledge diversity is fundamental for building a self-reliant, innovative, and globally capable society. The conclusion is that integrating IKS, experiential learning, and transdisciplinary research offers a promising path to improve quality education and promote sustainable development.

Keywords: *Knowledge Diversity, Experiential Learning, Transdisciplinary Research, Decolonial Perspectives*

INTRODUCTION

Education plays a crucial role in social change, cultural preservation, and national progress. In today' s globalized world, education systems are heavily influenced by Western epistemologies, often sidelining indigenous and local knowledge traditions. This creates a form of epistemic dependence where curricula, research, and practices rely mainly on Eurocentric perspectives. Such reliance hampers recognition of diverse ways of knowing and hinders the development of culturally relevant, context- specific educational systems.

India, with its rich heritage and diverse knowledge traditions in fields like philosophy, science, mathematics, medicine, ecology, arts, spirituality, and pedagogy, has faced colonial- era devaluation of its indigenous systems, which were often replaced by Western standards as universal. Consequently, Indian education has often been disconnected from local realities.

The NEP 2020 signifies a major shift towards valuing knowledge plurality by integrating Indian Knowledge Systems into mainstream education. It promotes holistic, multidisciplinary, experiential, and value- based learning aligned with SDG 4 (Quality Education), emphasising the importance of cultural roots, traditional practices, and indigenous contexts within educational settings.

In this context, transdisciplinary research offers a strong approach for combining multiple disciplines and knowledge systems to address complex social and educational challenges. Unlike traditional research confined to specific fields, transdisciplinary methods foster collaboration among communities, practitioners, policymakers, and researchers. At the same time, decolonial perspectives question dominant epistemologies, advocating for the recognition of marginalized voices, local knowledge, and cultural diversity.

This study examines how transdisciplinary research and decolonial views can promote a shift from epistemic dependence towards embracing knowledge diversity in education. It especially highlights the importance of Indian Knowledge Systems and experiential learning in creating inclusive, sustainable, and future- ready educational practices.

https://www.gapgyan.org/

CONCEPTUAL FRAMEWORK

Epistemic Dependence: Epistemic dependence describes a situation where societies overly rely on external or dominant knowledge frameworks to interpret reality, address issues, and shape education. Colonialism played a major role in fostering Western epistemological dominance in educational systems globally, including in India. This dependence often results in

• the Marginalisation of indigenous knowledge,
• cultural alienation,
• reduced relevance of education
• Within local contexts, and limited innovation that is grounded in local realities.

Knowledge Diversity

Knowledge diversity refers to the coexistence and integration of multiple knowledge traditions, perspectives, and methodologies. It recognizes that knowledge is socially, culturally, and historically situated.

Knowledge diversity includes:

- Indigenous knowledge
- Local community wisdom
- Scientific knowledge
- Experiential understanding
- Cultural practices
- Spiritual and ethical traditions

Promoting knowledge diversity strengthens inclusive learning environments and supports democratic participation in knowledge creation.

Transdisciplinary Research: Transdisciplinary research integrates insights from multiple disciplines and stakeholders to address real-world problems comprehensively. It differs from multidisciplinary and interdisciplinary approaches because it transcends disciplinary boundaries and actively involves non-academic participants.

Characteristics include:

- Collaborative knowledge creation
- Problem-centered research
- Integration of theory and practice
- Social relevance
- Holistic understanding

Decolonial Perspectives: Decoloniality seeks to dismantle colonial structures of power, knowledge, and identity. In education, decolonial perspectives challenge Eurocentric curricula and advocate the inclusion of indigenous and marginalised epistemologies.

Decolonial education promotes:

- Cultural justice
- Cognitive diversity
- Contextual learning
- Epistemic equity
- Educational self-reliance

Experiential Learning: Experiential learning emphasises learning through direct experience, reflection, and practical application. It motivates students to actively participate in real-world scenarios rather than just memorising information.

This approach boosts critical thinking, creativity, problem-solving, collaboration, and contextual understanding. NEP 2020 strongly endorses experiential learning as an effective pedagogical method for meaningful education.

RELATED RESEARCH WORK

Numerous scholars highlight the importance of incorporating indigenous knowledge into modern education to foster learning that is both culturally relevant and context- sensitive. Studies reveal that colonial educational models systematically marginalised local traditions, indigenous epistemologies, and community- based knowledge, favouring Western paradigms as universal standards. This dominance fostered epistemic dependence, disconnecting educational systems from local realities, cultural identities, and indigenous ways of knowing. Scholars like Vandana Shiva (1993) and Ngũgĩ wa Thiong'o argue that colonial education not only displaced traditional knowledge but also undermined cultural self-reliance and intellectual autonomy. In India, this has led to the underrepresentation of Indian Knowledge Systems (IKS) in mainstream curricula, despite their significant contributions to philosophy, science, mathematics, medicine, ecology, and ethics.

Decolonial education research emphasises challenging Eurocentric frameworks and promoting epistemic justice through culturally responsive pedagogies. Scholars such as Paulo Freire (1970), Walter Mignolo (2011), and Linda Tuhiwai Smith (2012) advocate for education that moves beyond Western narratives to include

https://www.gapgyan.org/

marginalized voices, indigenous experiences, and local knowledge traditions. These approaches enhance critical consciousness, identity development, social justice, and democratic participation in knowledge creation. They encourage students to critically analyse power dynamics within education, recognise cultural diversity, and value epistemic plurality. Researchers also find that decolonial methods promote inclusion, empower marginalized groups, and lead to culturally grounded educational change.

Research in transdisciplinary approaches suggests that tackling global issues like sustainability, climate change, social inequality, and educational disparities requires crossing disciplinary boundaries. Experts such as Basarab Nicolescu (2002) emphasize that transdisciplinary research integrates multiple fields to address complex challenges effectively.

OBJECTIVES OF THE STUDY

1. To examine the concept of epistemic dependence in contemporary education.
2. To explore the significance of knowledge diversity in educational transformation.
3. To analyze the role of transdisciplinary research in promoting inclusive education.
4. To study the contribution of decolonial perspectives toward educational reform.
5. To understand the role of Indian Knowledge Systems and experiential learning in achieving SDG 4 and NEP 2020 objectives.

RESEARCH METHODOLOGY

This study employed a qualitative research design to explore the complex interplay between knowledge diversity, decoloniality, experiential learning, and transdisciplinary education. A qualitative approach was suitable due to its focus on in-depth examination of educational perspectives, experiences, and conceptual insights. The research examined how diverse epistemologies and decolonial perspectives can foster equitable, context-sensitive, and future-oriented educational practices aligned with NEP 2020 and SDG 4.

Data sources included both primary and secondary materials for a comprehensive understanding.

Primary Data:

- ✓ Semi-structured interviews with educators, researchers, and academic practitioners to gather their views on knowledge diversity and educational transformation.
- ✓ Reflective observations during academic interactions and educational activities to assess the relevance of experiential and transdisciplinary learning.
- ✓ Discussions and scholarly exchanges related to Indian Knowledge Systems (IKS), decoloniality, and sustainable education.

Secondary Data:

- ✓ Policy documents such as the National Education Policy (NEP) 2020.
- ✓ Research articles and scholarly journals.
- ✓ Books on decoloniality, transdisciplinary research, and experiential learning.
- ✓ Government and policy reports.
- ✓ Articles concerning IKS, sustainability, and quality education.

Data analysis was conducted using NVIVO software with thematic analysis to identify key themes, patterns, and relationships. Coding and categorisation facilitated systematic interpretation. Thematic coding was performed to identify recurring conceptual patterns and interpretive categories.

To interpret the qualitative data systematically, thematic analysis was conducted using NVIVO software. The following Tree Word Map visually represents the conceptual dimensions and thematic relationships associated with epistemic dependence.

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

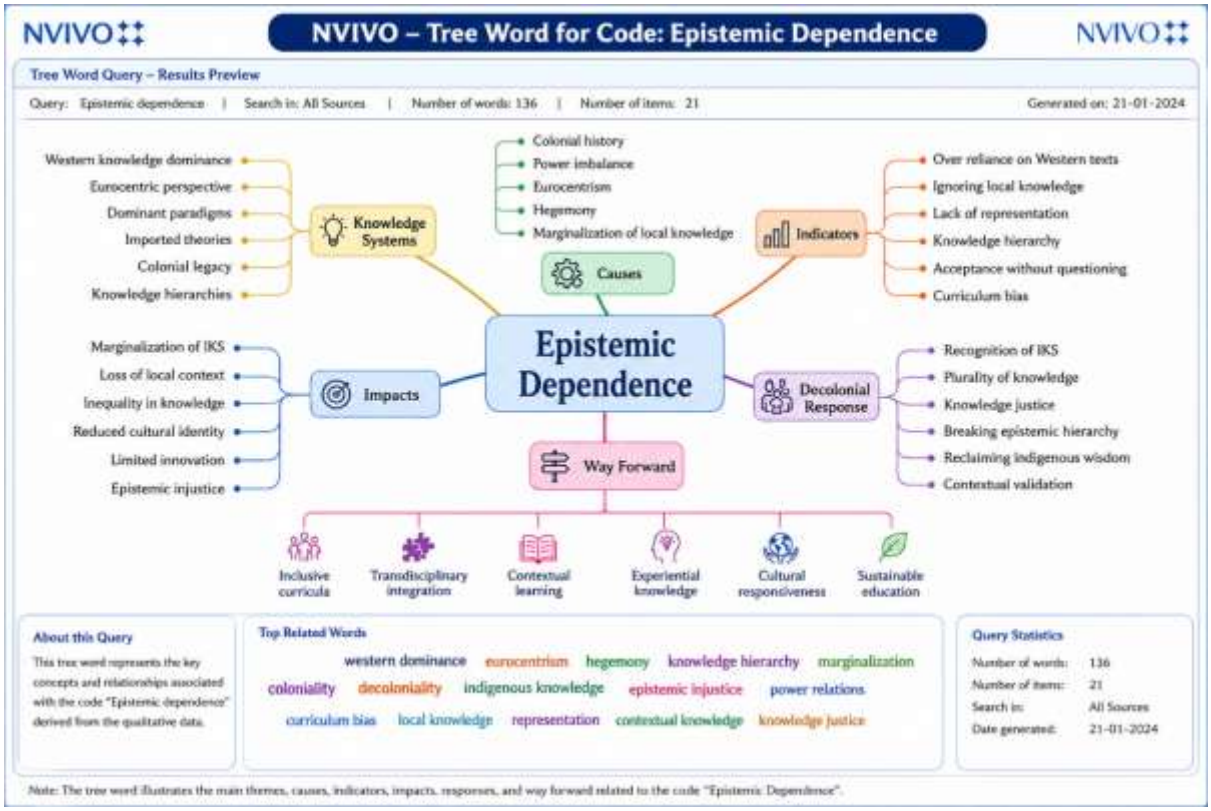


Figure 1: NVIVO Tree Word Map of Epistemic Dependence

Analysis of NVIVO Tree Word Map: *Epistemic Dependence*

The NVIVO Tree Word Map on *Epistemic Dependence* visually represents the major dimensions, causes, indicators, impacts, and responses associated with epistemic dependence in education. The diagram highlights how Western knowledge dominance, Eurocentric perspectives, imported theories, and colonial legacies continue to shape educational systems and knowledge hierarchies. The "Causes" section reflects factors such as colonial history, power imbalance, hegemony, and marginalization, which contribute to the persistence of epistemic dependence.

The "Indicators" component reveals manifestations including overreliance on Western texts, lack of representation of local knowledge, curriculum bias, and unquestioned acceptance of dominant paradigms. The "Impacts" section demonstrates how epistemic dependence leads to the marginalization of Indian Knowledge Systems (IKS), loss of local context, inequality in knowledge production, reduced cultural identity, and limited innovation.

This study employed a qualitative research design to explore the complex interplay between knowledge diversity, decoloniality, experiential learning, and transdisciplinary education. A qualitative approach was suitable due to its focus on in-depth examination of educational perspectives, experiences, and conceptual insights. The research examined how various knowledge systems and decolonial viewpoints can foster inclusive, sustainable, and culturally responsive educational practices aligned with NEP 2020 and SDG 4. Purposive sampling was used to select educators and researchers relevant to the study objectives.

Major themes uncovered included:

- ✓ Knowledge diversity
- ✓ Epistemic dependence
- ✓ Experiential learning
- ✓ Decolonial education
- ✓ Transdisciplinary integration
- ✓ Sustainable development

This analysis provided insights into how diverse knowledge systems and decolonial strategies can enhance educational quality, foster cultural inclusivity, and promote learner-centered pedagogy.

RESULTS

1. Persistence of Epistemic Dependence

The findings indicate that educational institutions continue to prioritise Western epistemological frameworks over indigenous perspectives. This creates a disconnect between education and local realities.

Participants highlighted that:

https://www.gapgyan.org/

- Curricula often lack regional relevance.
- Indigenous practices receive minimal academic recognition.
- Students experience cultural alienation in learning environments.

2. Importance of Knowledge Diversity

The integration of multiple knowledge systems enhances educational inclusivity and contextual understanding. Knowledge diversity allows students to appreciate different worldviews and encourages critical reflection.
Respondents emphasised that:

- Diverse knowledge promotes creativity and innovation.
- Indigenous wisdom contributes to sustainability education.
- Local knowledge strengthens community engagement.

3. Role of Transdisciplinary Research

Transdisciplinary research was found to be highly effective in addressing educational and social challenges. It encourages collaboration across disciplines and bridges the gap between theory and practice.
The study observed that transdisciplinary approaches:

- Foster holistic problem-solving
- Promote collaborative learning
- Encourage social responsibility
- Enhance real-world applicability of education

4. Decolonial Perspectives and Educational Justice

Decolonial approaches challenge hierarchical knowledge systems and create space for marginalized voices. Participants believed that decolonial education is essential for restoring cultural dignity and intellectual autonomy.
The study identified that decoloniality:

- Encourages epistemic justice
- Supports culturally responsive pedagogy
- Promotes inclusive curriculum development
- Reduces intellectual dependency

5. Experiential Learning as a Transformative Pedagogy

Experiential learning significantly improved student engagement and conceptual understanding. Teachers reported that activity-based and community-centered learning created meaningful educational experiences.
Experiential learning contributed to:

- Active participation
- Critical thinking
- Practical application of knowledge
- Value-based learning

6. Indian Knowledge Systems and Sustainable Development

The findings indicate that Indian Knowledge Systems provide valuable insights for sustainable living, ethics, environmental conservation, and holistic well-being.
IKS integration supports:

- Ecological consciousness
- Moral development
- Cultural continuity
- Sustainable education practices

The study concludes that integrating IKS into mainstream education can significantly contribute to achieving SDG 4 and the vision of Viksit Bharat 2047.

EDUCATIONAL IMPLICATIONS

- **Implications for Teachers:** Teachers should adopt culturally responsive pedagogies and experiential learning methods to make education more meaningful and student-centred. Interdisciplinary teaching practices can help learners connect classroom knowledge with real-life situations and improve critical thinking and engagement.
- **Implications for Curriculum Developers:** Curriculum developers should include Indian Knowledge Systems and develop context-sensitive content that reflects cultural diversity and local realities. The curriculum must also promote value-based and holistic education aligned with NEP 2020.
- **Implications for Policymakers:**Policymakers should support decolonial educational reforms and encourage research on indigenous and local knowledge systems. They should also promote transdisciplinary academic frameworks to strengthen inclusive and sustainable education.

https://www.gapgyan.org/

- **Implications for Students:** Students can develop critical and reflective thinking through experiential and diverse learning approaches. Such educational practices also enhance cultural awareness, creativity, collaboration, and problem-solving skills needed for future challenges.

CONCLUSION

Moving from epistemic dependence to embracing knowledge diversity is vital for developing inclusive, equitable, and future-ready education systems in the twenty-first century. The research shows that transdisciplinary approaches and decolonial perspectives offer effective pathways for educational change. Incorporating Indian Knowledge Systems, experiential learning, and culturally rooted pedagogies makes education more relevant, meaningful, and socially engaged.

The results strongly support the goals of NEP 2020, SDG 4, and Viksit Bharat 2047, which focus on holistic and learner-centered education. Decolonial strategies challenge intellectual dependency and open doors to epistemic justice and cultural empowerment. At the same time, transdisciplinary methods encourage collaboration, innovation, and addressing real-world issues, demonstrating how diverse knowledge systems and decolonial viewpoints can promote inclusive, sustainable, and culturally responsive practices. Therefore, educational institutions need to go beyond rigid disciplinary boundaries and adopt a plurality of knowledge. Integrating varied knowledge systems will not only enhance learning but also support national progress, sustainability, and global citizenship.

REFERENCES

[1] Dei, G. J. S. (2011). *Indigenous philosophies and critical education: A reader*. Peter Lang Publishing.
[2] Freire, P. (1970). *Pedagogy of the oppressed* (M. B. Ramos, Trans.). Continuum.
[3] Government of India, Ministry of Education. (2020). *National education policy 2020*. Government of India. National Education Policy 2020
[4] Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development*. Prentice Hall.
[5] Kumar, K. (2005). *Political agenda of education: A study of colonialist and nationalist ideas*. Sage Publications.
[6] Mignolo, W. D. (2011). *The darker side of Western modernity: Global futures, decolonial options*. Duke University Press.
[7] Nicolescu, B. (2002). *Manifesto of transdisciplinarity* (K.-C. Voss, Trans.). State University of New York Press.
[8] Nussbaum, M. C. (2010). *Not for profit: Why democracy needs the humanities*. Princeton University Press.
[9] Shiva, V. (1993). *Monocultures of the mind: Perspectives on biodiversity and biotechnology*. Zed Books.
[10] UNESCO. (2015). *Education 2030: Incheon declaration and framework for action for the implementation of Sustainable Development Goal 4*. UNESCO.[11] UNESCO Education 2030 Framework
[11] Battiste, M. (2002). Indigenous knowledge and pedagogy in First Nations education: A literature review with recommendations. *National Working Group on Education and the Minister of Indian Affairs Indian and Northern Affairs Canada*.
[12] Smith, L. T. (2012). *Decolonizing methodologies: Research and indigenous peoples* (2nd ed.). Zed Books.
[13] hooks, b. (1994). *Teaching to transgress: Education as the practice of freedom*. Routledge.
[14] Kincheloe, J. L. (2008). *Knowledge and critical pedagogy: An introduction*. Springer.
[15] Morin, E. (2001). *Seven complex lessons in education for the future*. UNESCO Publishing.

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

Gurukul Education In Bhartiya Gyan Parampara: A Transdisciplinary Approach To Contemporary Global Challenge

Falguni A. Shah

Research Scholar, Department of Education, Gujarat University, Ahmedabad, India.

Prof. (Dr.) Preeti J. Maiyani

Professor, UGC-MMTTC Department, Gujarat University, Ahmedabad, India.

Abstract

The contemporary global education system is increasingly confronted with complex challenges such as ethical erosion, environmental crises, mental health concerns, and the fragmentation of knowledge into rigid disciplinary silos. In this context, the Bhartiya Gyan Parampara (Indian Knowledge System) offers a holistic and transdisciplinary framework rooted in integrative thinking, sustainability, and valuebased learning. This paper explores the Gurukul model of education as a foundational pillar of traditional Indian pedagogy and examines its relevance in addressing present-day global challenges. The Gurukul system was not merely an institutional arrangement but a way of life that emphasized experiential learning, character formation, ecological harmony, and the integration of spiritual, intellectual, and physical development. Knowledge transmission in this system was deeply relational, involving close interaction between the guru (teacher) and shishya (student), fostering personalized learning and ethical grounding. Unlike modern compartmentalized education, the Gurukul system embraced trans disciplinarity by integrating philosophy, science, arts, governance, and environmental knowledge into a unified learning experience. This paper adopts a qualitative and interpretative approach, drawing upon classical texts, historical analysis, and contemporary educational discourse. It critically evaluates how principles of the Gurukul system such as self-discipline, community living, sustainability, and value-centric education can inform modern pedagogical reforms. Furthermore, it argues for the incorporation of indigenous knowledge frameworks into global education systems to create more resilient, inclusive, and holistic learning environments. By bridging ancient wisdom with modern needs, the study highlights the potential of the Gurukul model to contribute meaningfully to educational innovation and sustainable development in the 21st century.

Keywords: *Communi Gurukul Education System, Bhartiya Gyan Parampara, Transdisciplinary*

INTRODUCTION

Education has always been a reflection of the philosophical and cultural foundations of a society. In the modern era, education systems have largely been shaped by industrialization, globalization, and technological advancement. While these developments have led to significant progress, they have also resulted in a fragmented understanding of knowledge, often prioritizing economic productivity over ethical, ecological, and holistic development.This has created a pressing need to revisit alternative knowledge systems that offer a more integrated approach. The Bhartiya Gyan Parampara represents a vast and profound repository of indigenous knowledge developed over millennia. It encompasses disciplines such as philosophy, mathematics, medicine, astronomy, governance, and arts, all interconnected through a holistic worldview. Within this tradition, the Gurukul model of education stands out as a unique pedagogical system that nurtured not only intellectual growth but also moral, spiritual, and social development. This paper aims to analyze the Gurukul system as a transdisciplinary educational model and explore its relevance in addressing contemporary global challenges. It seeks to answer how indigenous educational practices can contribute to modern reforms and why they are essential for sustainable and inclusive development.

2. Concept of Bhartiya Gyan Parampara:-

Bhartiya Gyan Parampara refers to the traditional Indian system of knowledge that is deeply rooted in experiential learning, philosophical inquiry, and practical application. Unlike Western epistemology, which often emphasizes objectivity and specialization, the Indian knowledge tradition focuses on interconnectedness and holistic understanding. Knowledge in this system is not merely informational but transformational. It aims at

https://www.gapgyan.org/

self-realization and the welfare of society. The integration of various domains such as metaphysics, ethics, ecology, and social sciences demonstrates its inherently transdisciplinary nature. This framework recognizes that knowledge cannot be confined to rigid boundaries. Instead, it encourages dialogue between disciplines, fostering innovation and adaptability. Such an approach is particularly relevant today, where complex global issues require collaborative and integrative solutions.

3. Gurukul Model of Education: Historical Perspective:-

The Gurukul system was the primary mode of education in ancient India. Students lived in the residence of the guru, often located in natural surroundings, away from urban distractions. This environment facilitated focused learning and close mentorship. Education in the Gurukul was not standardized or uniform. It was tailored to the individual needs, abilities, and inclinations of each student. Subjects included Vedas, philosophy, mathematics, warfare, medicine, arts, and ethics, among others. The relationship between guru and shishya was central to this system. It was based on trust, respect, and mutual commitment. The guru was not merely an instructor but a guide, mentor, and moral exemplar. Learning was experiential, involving observation, participation, and reflection.

4. Transdisciplinary Nature of Gurukul Education:-

One of the most significant aspects of the Gurukul system is its transdisciplinary approach. Knowledge was not divided into isolated subjects but taught as an interconnected whole. For example, the study of astronomy was linked with mathematics, philosophy, and ritual practices. Similarly, medicine (Ayurveda) integrated biology, ecology, ethics, and spirituality. This integration enabled students to develop a comprehensive understanding of reality. The transdisciplinary approach also fostered critical thinking and creativity. Students were encouraged to question, reflect, and apply knowledge in practical contexts. This aligns with modern educational goals of problem solving and innovation.

5. Core Principles of the Gurukul System:-

5.1 Holistic Development

Education aimed at the development of body, mind, and spirit. Physical training, intellectual inquiry, and spiritual practices were equally emphasized.

5.2 Value-Based Learning

Ethics and moral values were integral to education. Students were taught principles such as truth, non-violence, discipline, and compassion.

5.3 Experiential Learning

Learning was hands-on and context-based. Students engaged in daily activities, community service, and practical tasks.

5.4 Sustainability and Ecology

Living in harmony with nature was a core principle. Students learned to respect and protect the environment.

5.5 Personalized Education

Instruction was customized to each student's abilities and interests, promoting deeper understanding and self-awareness.

6. Relevance to Contemporary Global Challenges:-

6.1 Addressing Ethical Crisis

Modern education often neglects moral development, leading to ethical dilemmas in society. The Gurukul system's emphasis on values can help cultivate responsible citizens.

6.2 Environmental Sustainability

The ecological consciousness embedded in traditional education can contribute to sustainable practices and environmental conservation.

6.3 Mental Health and Well-being

The integration of meditation, discipline, and balanced living promotes mental health and emotional stability.

6.4 Interdisciplinary Problem Solving

Global challenges such as climate change and inequality require integrated approaches. The transdisciplinary nature of the Gurukul model provides a useful framework.

6.5 Inclusive and Equitable Education

The personalized and community-based approach can help create more inclusive learning environments.

7. Integration with Modern Education Systems:-

To make the Gurukul model relevant today, it is essential to adapt its principles rather than replicate its structure. Modern education can incorporate value-based curricula, experiential learning, and interdisciplinary approaches. Technology can also be used to enhance these principles, creating hybrid models that combine

https://www.gapgyan.org/

traditional wisdom with modern innovation. Teacher training programs should emphasize mentorship and ethical leadership.

8. Challenges and Criticism:-

While the Gurukul system offers valuable insights, it is not without limitations. Issues such as accessibility, scalability, and historical inequalities must be critically examined. It is important to adopt an inclusive approach that respects diversity and ensures equal opportunities for all learners. Modern adaptation should address these challenges while preserving the core values of the system.

9. Conclusion:-

The Gurukul model of education represents a profound and holistic approach that is highly relevant in today's complex world. Its emphasis on transdisciplinary learning, ethical values, and ecological harmony provides a strong foundation for addressing contemporary global challenges. By integrating the principles of Bhartiya Gyan Parampara into modern education systems, it is possible to create a more balanced, inclusive, and sustainable future. This requires a paradigm shift from fragmented knowledge to holistic understanding, from competition to collaboration, and from mere information to transformation.

REFERENCES

[1] *Sharma, R. N. (2019). Indian philosophy and education. New Delhi: Atlantic Publishers.*

[2] *Altekar, A. S. (2009). Education in ancient India. Varanasi: Nand Kishore & Bros.*

[3] *Radhakrishnan, S. (2008). The Hindu view of life. HarperCollins.*

[4] *Mukherjee, R. K. (2011). Ancient Indian education: Brahmanical and Buddhist. Motilal Banarsidass.*

[5] *Dasgupta, S. (2017). A history of Indian philosophy. Cambridge University Press.*

[6] *Kumar, K. (2020). Education and society in India. Oxford University Press.*

[7] *NCERT. (2022). Indian knowledge systems: An introduction. New Delhi: NCERT.*

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

A PAPER ON
Revisiting Academic Resource Management in Ancient India Mahavishvavidyalayas (universities): Implications for Holistic and Future-Ready Student Development. (With Special Reference to Nalanda, Takshila & Vallabhi Vishvavidhyalya

GHANSHYAM L.CHAUHAN,
Research Scholar,
Shri Govind Guru University
Godhra. Junagadh
PRO. DR.PRATAPSINHJI CHAUHAN
Vice Chancellor of Bhaktkavi
Narsinh Mehta University

Abstract

Ancient Indian Mahavishvavidyalayas such as Nalanda University, Takshashila University, and Vallabhi University were globally acclaimed centers of higher learning, known for their advanced academic structures and efficient resource management systems. This research paper aims to revisit and critically analyze the academic resource management practices of these institutions and examine their relevance in the context of modern education systems focused on holistic and future-ready student development.

The research paperadopts a qualitative and historical research methodology, relying on secondary sources such as ancient texts, historical records, and contemporary scholarly interpretations. It explores how these universities effectively managed physical resources (libraries, infrastructure), human resources (teachers, scholars), and intellectual resources (curriculum, pedagogy). The findings reveal that these institutions emphasized interdisciplinary learning, ethical education, student-centric approaches, and sustainable use of resources.

Furthermore, the paper highlights that the integration of knowledge, values, and skills in these ancient systems aligns closely with present-day educational goals, including those outlined in modern policy frameworks. The study concludes that revisiting these traditional models can provide valuable insights for redesigning contemporary academic institutions to foster holistic development, critical thinking, adaptability, and global competence among students.

Keywords: *Ancient Indian Education, Academic Resource Management, Holistic Development, Nalanda University, Takshashila University, Vallabhi University, Interdisciplinary Learning, Future-Ready Education.*

INTRODUCTION



https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

Education has always been a cornerstone of civilization, shaping not only intellectual capabilities but also moral, social, and cultural values. In the Indian context, the ancient system of education stands as a remarkable example of a holistic and well-organized model of learning. Renowned Mahavishvavidyalayas such as Nalanda University, Takshashila University, and Vallabhi University were not merely institutions of knowledge dissemination but vibrant centres of intellectual excellence, innovation, and character formation. These universities attracted scholars and students from across Asia and beyond, reflecting their global reputation and academic rigor.

One of the key factors behind the success of these ancient institutions was their effective academic resource management. Unlike modern systems that often emphasize infrastructure and technology alone, these Mahavishvavidyalayas adopted a comprehensive approach to managing resources, including physical infrastructure, libraries, human capital (teachers and scholars), and intellectual resources such as curriculum and pedagogy. For instance, Nalanda was famous for its largelibrary system, while Takshashila functioned through a decentralized guru–shishya model, and Vallabhi thrived under strong administrative and state support. This diversity in management styles highlights the adaptability and innovation inherent in ancient Indian education.

In today's rapidly evolving world, education systems are facing challenges such as lack of holistic development, skill gaps, and increasing pressure to produce globally competent and future-ready individuals. Modern education often tends to focus on specialization and examination-oriented learning, sometimes at the cost of ethical values, critical thinking, and overall personality development. This creates a pressing need to revisit and learn from traditional models that successfully balanced knowledge, skills, and values.

The concept of holistic education, which integrates intellectual, emotional, ethical, and practical dimensions of learning, was deeply embedded in these ancient universities. Their academic frameworks encouraged interdisciplinary learning, open dialogue, debate, and experiential knowledge, making students not only knowledgeable but also socially responsible and adaptable. Moreover, the sustainable and efficient use of available resources ensured accessibility and inclusivity in education.

Despite the rich legacy of these institutions, there is a noticeable gap in contemporary research regarding their academic resource management practices and their applicability to modern education systems. Most studies focus on historical descriptions rather than analytical insights that can inform current educational reforms.

Therefore, this research paper aims to critically examine the academic resource management systems of Nalanda University, Takshashila University, and Vallabhi University, and to explore their relevance in promoting holistic and future-ready student development in the contemporary era. By drawing parallels between ancient practices and modern educational needs, the study seeks to provide valuable insights for policymakers, educators, and institutions aiming to create a more balanced, inclusive, and effective education system.

Moreover, resilient and sustainable community-based credit unions remain focused on enhancing the economic well-being of their members and alleviating poverty (Sakitri, 2020). Credit unions that are well-structured and operate with sound financial systems play a key role in efficiently allocating financial resources, transferring funds from those with surplus to those in need (financial intermediaries) (Guinnane et al., 2001).

Globally, credit unions play a significant role in providing social opportunities by fostering a supportive environment for their members. They also create economic opportunities through financial initiatives designed to bridge the gap between commercial banks and individuals who lack access to traditional banking services (Vrajlal K. Sapovadia | IDEAS/RePEc, n.d.). According to the credit union concept, these organizations offer a wide range of financial services to their members, providing greater flexibility to meet both their financial and social needs (Ansah &Sakyiwaa, 2020).

The resilience and persistence of well-managed credit unions are evident in their ability to provide both financial and non-financial resources to members, create jobs, and improve the overall well-being of their communities. Credit unions also demonstrate economic resilience by consistently mobilizing sufficient resources for their members and supporters to enhance their financial stability (Irumba & Alinaitwe, 2019). Globally, credit unions are recognized for nurturing microfinance groups and fostering social and financial connections among members. They focus on expanding credit facilities, increasing savings volumes, offering more loan opportunities, and accumulating capital assets to improve business performance (Irumba & Alinaitwe, 2019). Furthermore, their core operations require them to continually provide financial literacy to their members as needed (Coen et al., 2019).

As highlighted above, credit unions play a crucial role in fostering a savings culture among their members (Ansah &Sakyiwaa, n.d.). A strong savings culture is vital for effective planning, both in terms of investments and expenditures. A favorable financial environment enhances accessibility, allowing members to participate in viable business opportunities (Hezron & Muturi, 2015). Recognizing the significant contributions of credit unions to development, it is essential to ensure that funds are managed and disbursed within a profitable environment. Moreover, like any financial institution or business venture, credit unions must demonstrate strong performance. Given their importance to both the global and local economy, the financial performance of credit unions remains a critical consideration.

Many important questions remain unresolved regarding the financial performance of community-based credit unions and the factors that contribute to it. How do key stakeholders assess the financial performance of these credit unions? What are the key determinants of their financial success? Some researchers have explored the

https://www.gapgyan.org/

factors influencing the growth and sustainability of credit unions. Upon reviewing widely cited studies, it becomes evident that these determinants can be grouped into two main categories: pre-determinants and post-determinants of performance. Pre-determinants refer to factors that influence financial performance but are not reflected directly on financial statements. These include aspects such as budgeting and budgetary control, the financial environment, management and employees, regulatory conditions, internal controls, and capital structure.

On the other hand, post-determinants refer to factors that directly influence financial performance and are reflected on financial statements. These include liquidity, net assets, total assets, return on assets, return on capital employed, net profit, gross profit, return on equity, and others (Hezron & Muturi, 2015)..

Regarding the determinants mentioned above, the capital structure of a community-based credit union refers to the decision to be an equity-based firm, a debt-based firm, or a combination of both (Rayees, 2022). Capital structure involves developing a financing strategy and determining the appropriate financing sources. This study, therefore, aims to examine how a credit union's financing choices impact its financial performance. An unsound capital structure can lead to operational inefficiencies and hinder the achievement of organizational goals (Niyi Oladipo & Olusegun, 2020).

Capital structure decisions are primarily the responsibility of the Board of Directors (BOD) and management due to their critical impact on the organization. The nature, character, and operational effects of a firm are directly linked to its capital structure, making these decisions crucial for the BOD and management. As noted by Salawu et al. (2012), a firm's success begins with its capital structure. This structure consists of the proportion of equity capital and debt capital, with debt capital being either long-term or short-term, such as loans, debentures, and bonds, while equity capital includes shares, retained earnings, capital surplus, and share deals. A mixed capital structure combines both equity and debt capital. The decision to opt for all equity, all debt, or a mix depends on the BOD and management's assessment of the capital and money market conditions (Shibutse et al., 2019). Typically, cooperative credit unions raise capital through members' shares, reflecting the concept of equal ownership. As Shibutse et al. (2019) suggest, equity capital is the primary source of funds, while debt capital is secondary, as credit unions require equity for ownership. The form and nature of a firm's capital directly influence its performance, with financial managers being tasked with determining the optimal capital mix (Shibutse et al., 2019). Both quantitative and qualitative factors are key determinants of capital structure, including the timing of share issuance and securities, firm characteristics, profitability, industry nature, control, competitive positioning, liquidity, and other subjective judgments (Shibutse et al., 2019).

RELATED RESEARCH WORK

Kadaba, Aithal, and Sharma (2024): The study was showed the role of ancient Indian universities in providing holistic and multidisciplinary education. The study explained that institutions like Nalanda, Takshashila, and Vallabhi followed a holistic approach where students were taught not only academic subjects but also moral values, discipline, and spiritual knowledge. This helped in the overall development of students, including their character, behavior, and thinking ability. The study also showed that education was multidisciplinary, as students learned subjects like philosophy, medicine, mathematics, astronomy, and politics together, which gave them broad knowledge.

The study was further highlighted that teaching methods in ancient universities were interactive and student-centered. Students learned through discussions, debates, and questioning, which improved their critical thinking skills. Teachers provided personal guidance to students, making learning more effective. The study also found that these universities attracted students from different parts of the world, creating a diverse and culturally rich learning environment. Finally, the study concluded that ancient Indian universities built a strong value-based education system, and modern education can learn from these practices to develop holistic and future-ready students.

Kadaba, Aithal, and Suneel (2023): The study was examined ancient Indian universities as important centers for global learning and research. The authors discussed how universities like Nalanda, Takshashila, and Vallabhi worked as institutional repositories where knowledge was created, stored, and shared. The study explained that these universities offered a wide range of subjects such as philosophy, science, medicine, and politics. Students from different countries came to study there, which helped in the exchange of knowledge and ideas at an international level.

The study also highlighted that these universities had strong systems for managing academic resources like libraries, teachers, and residential facilities. The study found that teaching methods were well-organized and focused on research, discussion, and practical learning. Knowledge was preserved through manuscripts and passed on through teacher-student interaction. The study concluded that ancient Indian universities played a key role in global education and research, and their practices could inspire modern education systems to improve knowledge sharing and develop future-ready students.

Mishra, S (2025): The study showed that the ancient Nalanda University followed strong traditions of debate and discussion. Students and teachers focused a lot on logical thinking and sharing ideas. Discussions were not

https://www.gapgyan.org/

done just to win arguments, but to gain true knowledge. Students were encouraged to express their thoughts clearly and also understand the views of others.

The study was also showed that the learning system at Nalanda was very advanced. Education was not limited to books, but included discussions, questioning, and reasoning. This method helped students develop critical thinking and confidence. In this way, the debate culture of Nalanda played an important role in ancient Indian education and remained inspiring even today.

Rawan (2025): The study showed that academic systems and administration of ancient universities like Takshashila, Nalanda, and Vallabhi. The study showed that these universities had well-organized structures and clear rules for managing education. Teachers and administrators worked together to maintain discipline and ensure proper learning. Students studied different subjects such as philosophy, medicine, politics, and grammar, which helped them gain broad knowledge.

The study also described that these universities followed advanced teaching methods and had proper systems for student admission and management. Learning was not limited to classrooms, as students were encouraged to think, ask questions, and take part in discussions. The administration ensured that education was systematic and effective. Overall, these institutions played an important role in shaping ancient Indian education and showed well-developed academic and administrative practices.

Teachers Institute (2023): The study showed that the rich legacy of ancient Indian universities such as Nalanda, Takshashila, and Vikramashila. The study was explained that these institutions were famous for their high-quality education and attracted students from different parts of the world. They offered a wide range of subjects, including philosophy, science, medicine, and arts, which helped students, gain deep and diverse knowledge.

The study also showed that these universities followed effective teaching methods and had experienced teachers. Learning was interactive, and students were encouraged to ask questions and take part in discussions. These institutions had strong systems for managing education and maintaining discipline. Overall, the article highlighted that these ancient universities played an important role in developing education in India and left a lasting legacy.

Empires of Old (2024): The study showed that the legacy of ancient universities like Nalanda and Takshashila in India. The study was also showed that these institutions were important centers of learning and were known for their excellence in education. Students from different area of world came to study various subjects such as philosophy, science, and politics. These universities helped in spreading knowledge and culture across different parts of the world.

The study also described that the teaching methods in these universities were advanced and focused on discussion and understanding rather than memorization. Teachers guided students to think deeply and develop their ideas. The universities had a strong academic environment and proper systems for learning. Overall, the study highlighted that Nalanda and Takshashila played a major role in the development of education in ancient India and left a lasting impact.

Palati (2024): Study showed that the study of ancient Indian universities such as Nalanda University and Takshashila in detail. The study stated that these universities were among the earliest and most famous centers of learning in the world, where students came not only from India but also from other countries. Education there was not limited to books; it also focused on moral values, religious ideas, logical thinking, and life skills. The teachers were highly knowledgeable and used discussion and questioning methods to teach students.

The study further showed that the educational model of these ancient universities was inspiring even in modern times. Education there aimed at holistic development, giving importance not only to intellectual growth but also to personality and character building. The study suggested that if these principles were adopted in today's education system, students could become more capable and responsible individuals.

Shukla (2020): The study was discussed about India's National Education Policy 2020 and explained how it drew inspiration from ancient learning centers like Takshashila, Nalanda University, and Vallabhi University. The study stated that these ancient universities had followed a holistic approach to education, where students had learned not only academic subjects but also ethics, critical thinking, and practical life skills. Teaching methods had included discussions, debates, and interactive learning, which had made education more effective and meaningful.

The study also explained that the New Education Policy 2020 had aimed to bring similar ideas into the modern education system. It had focused on overall student development, flexibility in learning, and skill-based education. The author suggested that by adopting these ancient principles, the current education system could become more practical, inclusive, and student-friendly. This approach had helped students become more creative, responsible, and capable in real-life situations.

Historic India (2023): The study showed that the ancient Indian universities such as Nalanda University, Takshashila, and Vallabhi University. The study explained that these institutions had been important centers of learning in ancient times, attracting students from different parts of the world. Education had covered a wide range of subjects such as philosophy, medicine, politics, and mathematics. The teaching system had been well-organized, and students had lived and studied in a disciplined and knowledge-rich environment.

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

The study also discussed highlighted that these universities had focused on overall development of students, including knowledge, character, and practical skills. Learning methods had included discussions, debates, and real-life applications, which had made education more effective. The study suggested that these ancient education systems had played a key role in shaping strong intellectual and cultural foundations, and their principles could still be useful for improving modern education systems.

1. **OBJECTIVES OF THE STUDY**:

1) To examine the system of academic resource management in ancient universities such as Nalanda University, Takshashila, and Vallabhi University.
2) To analyse how these ancient universities utilized educational resources for holistic student development, including intellectual, moral, and practical dimensions.
3) To identify key principles and practices of academic resource management from ancient systems that are relevant to modern higher education.
4) To explore the implications of ancient educational models for developing future-ready students in the contemporary education system.

4. Discussion:

1)To examine the system of academic resource management in ancient universities such as Nalanda University, Takshashila, and Vallabhi University: In ancient times, academic resource management did not only mean books or buildings. It included teachers (gurus), libraries, teaching methods, student support systems, and knowledge-sharing practices. These universities had very strong systems where highly qualified teachers guided students, and large libraries stored thousands of manuscripts. Learning was organized through discussions, debates, and practical knowledge rather than rote learning.

This objective focused on understanding how these resources were planned, used, and maintained effectively. For example, how teachers were selected, how knowledge was delivered, how students accessed learning materials, and how discipline and environment supported education. By studying this, we could understand how ancient systems successfully created knowledgeable and skilled students.



Resource Type	Description	Purpose
Teachers (Gurus)	Highly knowledgeable scholars	Quality education & guidance
Libraries	Large collections of manuscripts	Knowledge storage & access
Teaching Methods	Debate, discussion, practical	Deep understanding
Student System	Residential (Gurukul type)	Discipline & focus
Environment	Peaceful & intellectual atmosphere	Better learning experience

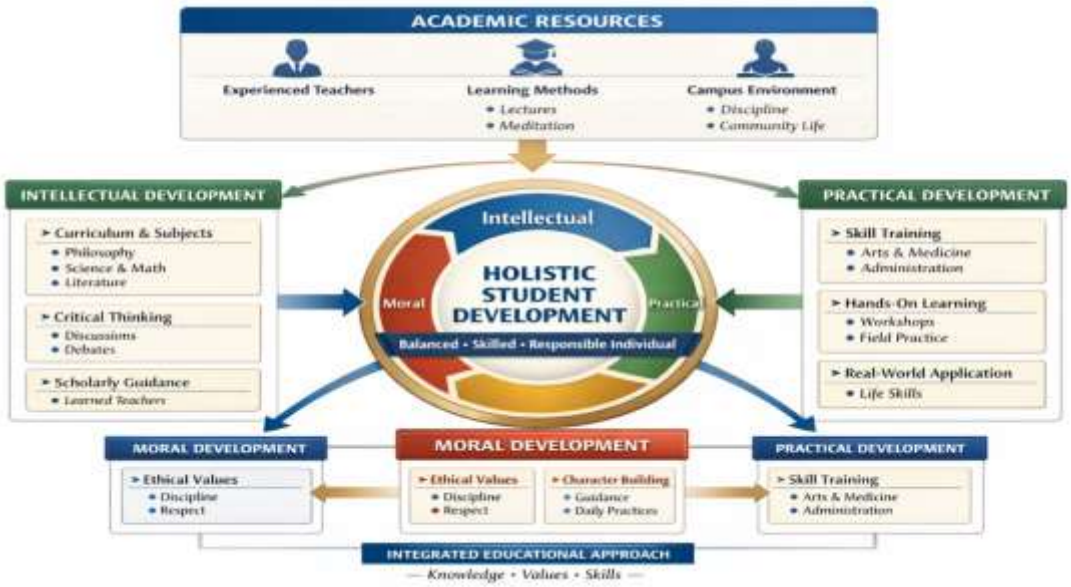
https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

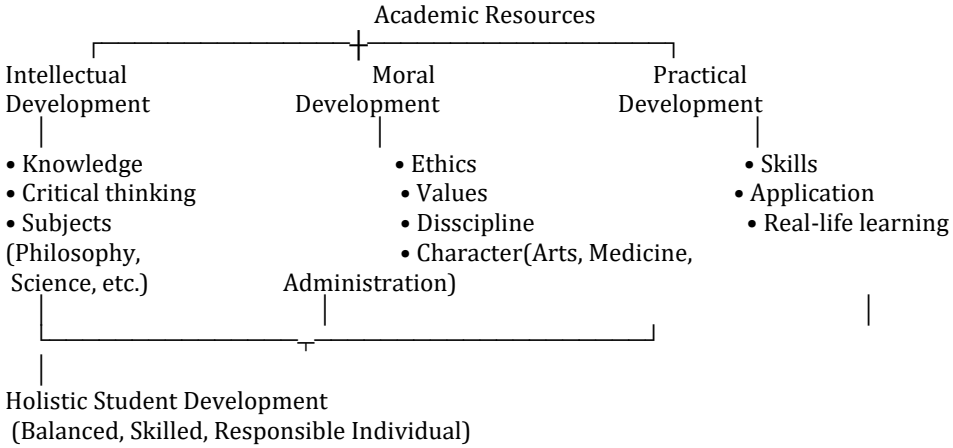
2) To analyse how these ancient universities utilised educational resources for holistic student development, including intellectual, moral, and practical dimensions:

In ancient times, education was not limited to gaining knowledge only. These universities used different resources such as teachers, curriculum, teaching methods, and environment to develop students in three main areas: **intellectual (knowledge), moral (values), and practical (skills)**. For intellectual development, students studied subjects like philosophy, science, and mathematics through deep discussion and critical thinking. For moral development, they were taught ethics, discipline, respect, and good behavior through guidance from teachers and daily practices. For practical development, students learned skills related to real life such as administration, medicine, arts, and communication.

This objective focused on understanding how all these resources worked together as a system. It studied how teachers guided students, how learning methods encouraged thinking, and how the environment supported discipline and values. By analyzing this, we could understand how ancient education systems created well-balanced and capable individuals, which is useful for improving modern education.



Holistic Student Development through Academic Resources



3) To identify key principles and practices of academic resource management from ancient systems that is relevant to modern higher education.

This objective focused on understanding the important ideas and methods used in ancient universities like Nalanda University, Takshashila, and Vallabhi University, and finding out how these can be useful in today's education system.

In ancient times, academic resource management was very well planned. One key principle was **quality over quantity**, meaning only highly knowledgeable teachers (gurus) were selected to teach students. Another

https://www.gapgyan.org/

important practice was **student-cantered learning**, where teaching was done through discussion, debate, and interaction instead of just memorization. There was also a strong focus on **value-based education**, where students learned discipline, respect, and ethical behaviour along with academic knowledge.

Another important principle was the **integration of theory and practical learning**. Students were not only taught subjects but were also trained to apply knowledge in real life, such as in medicine, governance, and arts. The **residential learning system (Gurukul style)** created a focused and disciplined environment, which helped students grow academically and personally. Also, **free flow of knowledge** was encouraged, where students and teachers openly shared ideas and engaged in intellectual discussions.

Principles:

📘 **Quality Education** – Skilled and knowledgeable teachers

🧠 **Student-Centered Learning** – Discussion, debate, interaction

🛠 **Value-Based Education** – Ethics, discipline, character

🛠 **Practical Learning** – Real-life application of knowledge

🏫 **Supportive Environment** – Focused and disciplined system

🔄 **Knowledge Sharing** – Open discussions and idea exchang.

1. Quality Education (Skilled and Knowledgeable Teachers)

This principle meant that only highly educated and experienced teachers were selected in ancient universities like Nalanda University, Takshashila, and Vallabhi University.
Teachers were experts in their subjects and also guided students in life. They did not just teach from books but shared deep knowledge and real-life wisdom. This ensured that students received **high-quality and meaningful education**.

2. Student-Centered Learning (Discussion, Debate, Interaction)

In ancient times, students were not passive learners. They actively participated in learning through **questions, discussions, and debates**.
Teachers encouraged students to think, ask doubts, and express their ideas. This helped students develop **critical thinking, confidence, and better understanding**, instead of just memorizing information.

3. Value-Based Education (Ethics, Discipline, Character)

Education was not only about knowledge but also about becoming a **good human being**.
Students were taught values like honesty, respect, discipline, and responsibility. Daily life in the university helped build strong character. This made students **morally strong and socially responsible**.

4. Practical Learning (Real-Life Application of Knowledge)

Students were trained to apply what they learned in real-life situations.
For example, they learned medicine by practice, governance by observation, and arts through hands-on training. This approach made students **skilled and job-ready**, not just theoretically knowledgeable.

5. Supportive Environment (Focused and Disciplined System)

Ancient universities provided a peaceful and disciplined environment (like the Gurukul system).
Students lived and studied in the same place, which helped them stay focused. The environment encouraged learning, respect, and personal growth. This created a **strong academic and moral atmosphere**.

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

6. Knowledge Sharing (Open Discussions and Idea Exchange)

Knowledge was freely shared among teachers and students.
There were open discussions, debates, and group learning. Students from different regions shared ideas and perspectives. This helped in **broad thinking, innovation, and deeper understanding**.

All these principles worked together in ancient universities like Nalanda University, Takshashila, and Vallabhi University to create well-balanced students. The education system focused not only on knowledge but also on values, practical skills, and overall personality development. As a result, students became knowledgeable in their subjects, ethical in their behavior, skilled in real-life applications, and responsible towards society. This holistic approach helped in developing individuals who were capable of contributing positively to both their personal life and society.

4) **To explore the implications of ancient educational models for developing future ready students in the contemporary education system**.

This objective focused on understanding how the teaching methods and educational practices used in ancient universities like Nalanda University, Takshashila, and Vallabhi University can be useful in today's modern education system.

In ancient times, education was designed to prepare students for real life. It focused on developing not only knowledge but also skills, values, and thinking ability. Today, the world is changing very fast due to technology, globalization, and new job demands. Therefore, students need to be **future-ready**, which means they should be adaptable, skilled, ethical, and capable of solving real-world problems. Ancient education models can help in achieving this by providing a balanced and practical approach to learning.

One major implication is the importance of **holistic development**, where education should focus on intellectual, emotional, and social growth. Another important idea is **skill-based learning**, where students learn practical skills along with theory. Ancient systems also emphasized **critical thinking and problem-solving**, which are very important in today's world. Additionally, **value-based education** from ancient times can help students become responsible and ethical citizens.

Implication	Meaning	Outcome for Students
📘**Holistic Development**	Overall growth of mind, behaviour, and skills	Balanced and well-developed personality
🛠**Skill-Based Learning**	Learning practical and job-related skills	Job-ready and capable students
🧠 **Critical Thinking**	Ability to think, analyse, and solve problems	Better decision-making ability
🧠 **Value Education**	Learning ethics, discipline, and responsibility	Good and responsible human beings
🔄 **Adaptability**	Ability to adjust to changes and new situations	Ready for future challenges

RESEARCH METHODOLOGY

This study uses a descriptive and qualitative research design. The descriptive approach helps in clearly explaining and understanding how academic resources were managed in ancient Indian universities and how these practices supported overall student development. The research does not focus on testing any hypothesis but aims to study and explain existing knowledge. Therefore, a qualitative and conceptual approach is used. This approach helps in understanding traditional education systems in detail and connecting them with present-day higher education.

Data Collection Method

https://www.gapgyan.org/

The data for this study has been collected through a systematic review of literature. First, relevant books, articles, and documents were identified. Then, only useful and reliable sources were selected for the study. After that, important information related to academic resource management, teaching methods, governance, and infrastructure was collected. Special attention was given to trusted and well-known sources to maintain accuracy. This method helps in organizing existing knowledge and understanding it in a meaningful way.

Significance of the Study

This study is important because it connects ancient knowledge with modern education. It adds value to the field of Higher Education Studies by showing how traditional ideas can improve today's education system. It can help policymakers and institutions, including University Grants Commission, to design better courses and teaching methods. The study also supports the goals of National Education Policy 2020, which focuses on holistic and skill-based education. It is also useful for researchers who want to study the connection between ancient and modern education. Overall, the study helps in understanding how to develop students who are knowledgeable, skilled, and socially responsible.

Research Gap

After reviewing existing studies, it is clear that some important gaps are still there. Most research focuses on Nalanda University and Takshashila University from a historical point of view, but not much attention is given to how they managed academic resources. There are very few studies that compare ancient education systems with modern ones. Also, the role of these universities in overall student development is not deeply studied. Vallabhi University is often ignored in research. In addition, there is a lack of studies connecting ancient education with modern skills like innovation, adaptability, and interdisciplinary learning. This study tries to fill these gaps.

Limitations of the Study

There are some limitations in this study. Since it is based only on secondary data, the results depend on the quality of existing sources. In some cases, especially for Vallabhi University, detailed historical information is limited. Also, the study is conceptual, so the findings are not tested through experiments or surveys. Another limitation is that ancient and modern education systems are very different, so not all practices can be applied directly today.

RESULTS

The study found that ancient universities such as Nalanda University, Takshashila, and Vallabhi University had a highly organized and effective system of academic resource management. Resources such as knowledgeable teachers, well-developed libraries, and interactive teaching methods were properly planned and utilized. The teacher-student relationship was strong, and learning was conducted through discussions, debates, and practical exposure, which made education more meaningful and impactful.

The study also found that these universities focused on **holistic student development**, including intellectual, moral, and practical aspects. Students not only gained subject knowledge but also developed ethical values, discipline, and real-life skills. The integration of theory with practical learning helped students become capable and confident individuals. This shows that ancient education systems were not limited to academic success but aimed at overall personality development.

Another important finding was that several key principles from ancient academic systems are still relevant today. These include quality education through expert teachers, student-centered learning, value-based education, practical skill development, and a supportive learning environment. These principles can be effectively applied in modern higher education to improve the quality of learning and student outcomes.

Finally, the study found that ancient educational models have strong implications for developing **future-ready students**. By adopting holistic development, critical thinking, adaptability, and skill-based learning, modern education systems can prepare students to face real-world challenges. The combination of ancient wisdom with modern techniques can help create students who are knowledgeable, ethical, skilled, and adaptable to future needs

DISCUSSION

Modern universities should adopt the holistic education approach followed in ancient institutions like Nalanda University, Takshashila, and Vallabhi University by focusing on students' intellectual, moral, and practical development. This approach will help in creating well-rounded individuals rather than focusing only on academic achievement.

https://www.gapgyan.org/

Educational institutions should promote student-centered learning methods such as discussions, debates, and interactive sessions instead of relying only on traditional lecture-based teaching. This will enhance students' engagement, critical thinking, and overall understanding of the subject.
There should be greater emphasis on skill-based and practical learning so that students become job-ready and capable of applying their knowledge in real-life situations. Integrating internships, fieldwork, and hands-on training into the curriculum can significantly improve employability and competence.
Universities should include value-based education in their curriculum to develop ethical behavior, discipline, and social responsibility among students. This will ensure that students not only succeed professionally but also contribute positively to society.
A strong teacher-student relationship through a mentorship system should be encouraged to provide proper academic guidance and personal development support. Such relationships can help students overcome challenges and achieve their full potential.
Institutions should create a supportive and disciplined learning environment, similar to ancient residential systems, to improve focus and academic performance. A positive academic atmosphere plays a crucial role in shaping students' attitudes and behavior.
Modern education should integrate ancient wisdom with modern technology by combining traditional teaching values with digital tools and innovative learning platforms. This blend can make education more effective, accessible, and relevant.
Curriculum design should be made more flexible and interdisciplinary, allowing students to explore multiple subjects and develop diverse skills. This will help students adapt to changing career demands and foster creativity and innovation.
Policymakers should consider incorporating these principles while implementing reforms such as National Education Policy 2020 to improve the overall quality of higher education. Aligning policy with proven educational practices can strengthen the education system.
Finally, continuous research and innovation in education should be encouraged to adapt ancient principles effectively in today's dynamic and rapidly changing world. This will ensure that education remains relevant, progressive, and future-oriented.

CONCLUSION AND RECOMMENDATIONS

Ancient Indian universities such as Nalanda University, Takshashila, and Vallabhi University demonstrated a highly structured and effective system of academic resource management that was deeply aligned with the principles of holistic education. The findings revealed that these institutions successfully integrated intellectual rigor, moral values, and practical skill development through well-organized resources such as expert faculty, rich knowledge repositories, interactive pedagogies, and disciplined learning environments. This comprehensive approach enabled the development of well-rounded individuals who were not only academically proficient but also ethically grounded and socially responsible.
Furthermore, the study established that the core principles and practices of these ancient educational systems retain significant relevance in the contemporary higher education landscape. In the context of rapidly evolving global demands, the need for developing future-ready students has become increasingly critical. The research highlighted that adopting elements such as student-centered learning, value-based education, experiential learning, and strong mentorship can substantially enhance the quality and outcomes of modern education systems. By integrating ancient educational wisdom with present-day innovations and policy frameworks, particularly in alignment with reforms like National Education Policy 2020, institutions can foster a more inclusive, adaptive, and competency-driven learning ecosystem. Ultimately, the study emphasized that revisiting and contextualizing ancient academic models offers a sustainable pathway for nurturing skilled, ethical, and resilient learners equipped to meet the challenges of the future.

REFERENCES

[1] Kadaba, M. K. M., Aithal, P. S., & Sharma, K. R. S. (2024). *Literature review on Indian ancient universities in importing holistic and multidisciplinary education: Creating Indian knowledge systems (IKS).* International Journal of Philosophy and Languages, 2(1), 1–17. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4714624 (SSRN)
[2] Kadaba, M. K. M., Aithal, P. S., & Suneel, S. (2023). *Ancient Indian universities as institutional repositories for global learning and research: A review-based analysis.* International Journal of Philosophy and Languages, 2(2), 115–128. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4770796 (SSRN)

https://www.gapgyan.org/

[3] Mishra, S. (2025, July 26). *Nalanda: Insights into ancient Indian practices of debate and argument.* Scroll.in. https://scroll.in/article/1083276 (Scroll.in)
[4] Rawan, R. (2025). *Academic paradigms and administrative organization of Takshashila, Nalanda, and Vallabhi.* Gujarat PCS Notes. https://gujarat.pscnotes.com/dmpq/describe-in-detail (Gujrat PCS Exam Notes)
[5] Teachers Institute. (2023). *Ancient Indian universities: The glorious legacy of Nalanda, Takshashila, and Vikramashila.* https://teachers.institute/higher-education (Teachers Institute)
[6] Empires of Old. (2024). *Exploring the legacy of Nalanda and Takshashila universities in ancient India.* https://empiresofold.com/nalanda-and-takshashila-universities (My Blog)
[7] Palati, V. (2024). *Nalanda and Takshashila: The ancient universities that educated the world.* Indian Streams Research Journal, 14(3). http://isrj.org/UploadedData/11515.pdf (oldisrj.lbp.world)
[8] Shukla, A. (2020, July 30). *New Education Policy 2020: Learning from Takshashila, Nalanda, and Vallabhi.* Hindustan Times. https://www.hindustantimes.com/education (Hindustan Times)
[9] Historic India. (2023). *Universities of ancient India: Nalanda, Takshashila, Vallabhi and others.* https://historicindia.org/universities-of-ancient-india (Historic India)

Webliography :

Google Scholar. https://scholar.google.com/
Google. https://www.google.com/
National Assessment and Accreditation Council. https://www.naac.gov.in/

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

Beyond Information to Self-Realization: Upanishadic Perspectives on Transformative Education

Anshika Akshaysinh Chudasama
Research Scholar (Phd in Education)
8799073750 @ anshikachudasama@gmail.com
Gujarat Vidhyapith

Abstract

In the contemporary educational landscape, learning is often confined to the acquisition of information, skills, and competencies, with limited emphasis on the deeper purpose of human development. While such an information-centric approach supports economic and technological advancement, it tends to overlook the transformative potential of education in fostering self-awareness, ethical values, and inner growth. In this context, the present paper explores the Upanishadic vision of education as a process that transcends information and culminates in self-realization.

Drawing upon key philosophical concepts and teachings from classical Upanishadic texts such as the Chandogya Upanishad, Brihadaranyaka Upanishad, Katha Upanishad, and Mundaka Upanishad, the study examines the concept of self-realization (Ātma-vidyā) as the ultimate aim of education. It highlights the distinction between Aparā Vidyā (lower knowledge) and Parā Vidyā (higher knowledge), emphasizing that true education leads to the realization of the unity of Ātman and Brahman. The paper further explores pedagogical principles embedded in Upanishadic traditions, including dialogical learning, reflective inquiry, and the stages of ŵवण, मनन,िनिद०ासन, which promote deep and experiential understanding.

Adopting a conceptual and interpretative approach, the study analyzes how these philosophical insights align with contemporary theories of transformative learning and holistic development. It also discusses the pedagogical implications of integrating Upanishadic wisdom into modern education, particularly in fostering learner-centered practices, ethical sensitivity, and inner

growth. The findings suggest that re-envisioning education through the lens of Upanishadic thought can contribute to a more meaningful and holistic educational paradigm. The paper argues that integrating Upanishadic wisdom can redefine learning as a process of inner transformation and holistic human development.

Keywords:*Upanishadic Wisdom, Self-Realization (Ātma-vidyā), Transformative Education, Indian Knowledge Systems (IKS), Holistic Development.*

INTRODUCTION

In the contemporary educational landscape, learning has increasingly become information centric, emphasizing the accumulation of data, development of technical skills, and achievement of measurable outcomes. While this approach has significantly contributed to economic growth and technological advancement, it has also led to a narrowing of the educational vision.

Education is often reduced to a utilitarian process, focusing primarily on employability and performance, rather than on the holistic development of the learner. Such a paradigm tends to overlook critical dimensions of human growth, including self-awareness, ethical understanding, and inner transformation. Consequently, there is a growing realization that education must move beyond mere information transmission toward a more transformative and meaningful process (Mezirow, 1997; Palmer, 1998).

This shift calls for a fundamental rethinking of the aims of education. Rather than viewing education solely as a means of acquiring external knowledge, it must be re-envisioned as a process that enables individuals to understand themselves and their place in the world. The deeper purpose of education, therefore, lies in fostering self-realization, wisdom, and liberation from ignorance. This perspective is beautifully encapsulated in the classical Sanskrit maxim, "सा

िवBायाि◌वमु4ये" (Sa Vidya Ya Vimuktaye), which asserts that true knowledge is that which

leads to liberation (Radhakrishnan, 1994). In this sense, education becomes a journey from ignorance to enlightenment, from superficial understanding to profound realization.

In this context, the philosophical foundations of Indian Knowledge Systems (IKS) provide a rich and holistic framework for reimagining education. Rooted in ancient texts such as the Upanishads, IKS emphasizes the unity of knowledge, consciousness, and existence. The Upanishads, which represent the culmination of Vedic thought, offer deep insights into the nature of the self (Atman) and ultimate reality (Brahman), and advocate an

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

educationthat leads to the realization of this unity (Olivelle, 1996). The famous invocation from the Brihadaranyaka Upanishad—"असतोमासyमय, तमसोमाऊ◌ोितगNमय, मृW◌ोमाNऽमृतंगमय"–symbolizes the transformative journey of the learner from ignorance to truth, from darkness to light, and from mortality to immortality. Such a vision positions education as a deeply reflective and experiential process, rather than a mechanical transfer of information.

Furthermore, Upanishadic pedagogy is grounded in dialogue, inquiry, and contemplation, as reflected in the processes of ŵवण (listening), मनन (reflection), and◌िनिदó◌ासन (deep contemplation). Knowledge is not merely taught but realized, and the role of the teacher is to guide the learner toward inner awakening. This approach resonates strongly with contemporary educational discourses that emphasize transformative learning, critical thinking, and holistic development. It also aligns with recent policy directions such as the National Education Policy 2020, which advocates value-based, multidisciplinary, and learner-centered education rooted in Indian traditions (Ministry of Education, 2020).

Against this backdrop, the present study seeks to explore the concept of education as self-realization through the lens of Upanishadic wisdom. It aims to analyze key philosophical ideas and Sanskrit teachings that transcend the notion of education as mere information acquisition and instead present it as a transformative process. Further, the study endeavors to examine the pedagogical implications of these insights for contemporary education, thereby contributing to the ongoing discourse on redefining the purpose and practice of education in the modern world.

OBJECTIVES OF THE STUDY

1. To explore the concept of self-realization as the ultimate aim of education in Upanishadic philosophy.
2. To analyse key Upanishadic teachings and Sanskrit maxims that reflect transformative dimensions of education beyond mere information acquisition.
3. To examine the pedagogical implications of Upanishadic wisdom for fostering holistic and transformative learning in contemporary education.

CONCEPTUAL FRAMEWORK OF THE STUDY

The present study is grounded in a conceptual understanding of education that transcends the conventional notion of information acquisition and instead emphasizes self-realization as the ultimate aim of learning. This framework integrates three interrelated constructs—education, self-realization,andtransformativelearning—withinthephilosophicalfoundationof Upanishadic thought.

In contemporary discourse, education is generally understood as a structured process of imparting knowledge, skills, and competencies necessary for social and economic participation. Modern education systems tend to emphasize measurable outcomes such as academic achievement, employability, and technological proficiency. While these dimensions are significant, they often promote a fragmented and utilitarian understanding of knowledge, neglecting the inner development of the learner (Sharma, 2000). In contrast, the traditional Indian perspective views education as a holistic process aimed at the integral development of the individual—physical, intellectual, emotional, and spiritual. Education, in this sense, is not merely the transmission of external knowledge but the unfolding of inner potential, as reflected in the classical maxim "सा◌िवB◌ायाि◌वमु4ये"–true knowledge is that which leads to liberation (Radhakrishnan, 1994).

Central to this framework is the concept of self-realization (Ātma-vidyā), which occupies a pivotal place in Upanishadic philosophy. Self-realization refers to the experiential understanding of one's true nature as the Ātman, which is identical with Brahman, the ultimate reality. The Upanishads emphasize that ignorance (Avidyā) is the root cause of human suffering, while true knowledge (Vidyā) leads to liberation. This idea is expressed through the mahāvākya "तêमिस" (Tat Tvam Asi) in the Chandogya Upanishad, signifying the unity of the individual self with universal consciousness (Olivelle, 1996). Similarly, the distinction between Parā Vidyā (higher knowledge) and Aparā Vidyā (lower knowledge) in the Mundaka Upanishad highlights the primacy of knowledge that leads to self-realization (Hume, 1921). Within this perspective, education becomes a process of self-discovery, shifting the focus from external achievements to inner transformation.

The notion of transformative education further strengthens this framework by emphasizing learning as a process that brings about a fundamental change in the learner's perspectives, beliefs, and understanding of the self and the world. Unlike traditional models that focus on memorization and reproduction of information, transformative learning encourages critical reflection, self-inquiry, and meaning-making (Mezirow, 1997). From an Upanishadic standpoint, transformationisnotmerelycognitivebutexistential,involvingamovementfromignoranceto knowledgeandfromillusiontoreality.Theinvocation"तमसोमाऊ◌ोितगNमय"(leadmefrom darkness to light) symbolizes this transformative journey, underscoring that education must encompass intellectual, moral, emotional, and spiritual growth.

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

These three constructs—education, self-realization, and transformation—are dynamically interconnected. In the Upanishadic paradigm, education serves as the pathway, transformation as the process, and self-realization as the ultimate goal. Education initiates the learner into the pursuit of knowledge, transformation facilitates the internalization and realization of that knowledge, and self-realization represents the culmination of this journey. Thus, the conceptual framework positions education as a progressive movement from information to wisdom, and from knowledge to self-realization, offering a holistic vision that integrates ancient philosophical insights with contemporary educational needs.

Philosophical Foundations in Upanishadic Thought

The Upanishads, as the culminating wisdom of the Vedic tradition, provide a profound philosophical foundation for understanding the true purpose of education. Moving beyond the confines of empirical knowledge and intellectual inquiry, they explore fundamental questions of existence, consciousness, and reality. Central to Upanishadic thought are the concepts of Brahman (ultimate reality), Ātman (self), Vidyā (knowledge), and Avidyā (ignorance), which collectively shape a holistic vision of education as a pathway toward self-realization.

A foundational principle in the Upanishads is the non-dual understanding of reality, wherein the individual self (Ātman) is identical with the universal absolute (Brahman). This idea is articulated through the mahāvākyas (great statements), which encapsulate the essence of Upanishadic philosophy. The declaration "तत्त्वमसि" (Tat Tvam Asi) from the Chandogya Upanishad signifies the essential unity between the individual and the universal (Olivelle, 1996), while "अहंब्रह्मास्मि" (Aham Brahmāsmi) from the Brihadaranyaka Upanishad affirms the realization of this unity. These philosophical insights suggest that true knowledge is not merely the accumulation of external facts but the realization of one's inherent identity with ultimate reality.Inthissense,educationisredefinedasaprocessthattransformsthelearner'sperception from duality to unity and from fragmentation to wholeness.

Closely related to this ontological understanding is the Upanishadic distinction between Vidyā and Avidyā. While Avidyā refers to empirical and worldly knowledge, Vidyā represents higher knowledge that leads to spiritual insight and liberation. The Mundaka Upanishad articulates this distinction through the classification of Parā Vidyā (higher knowledge) and Aparā Vidyā (lower knowledge), emphasizing that only the former leads to the realization of the imperishable reality (Hume, 1921). This framework does not dismiss worldly knowledge but situates it within a broader hierarchy, where education must ultimately guide the learner beyond information toward wisdom and self-realization.

Within this philosophical paradigm, the aim of human life—and consequently of education—is Moksha (liberation), achieved through the realization of the true self. Education, therefore, becomes a transformative process that dispels ignorance and illuminates the path to truth. This transformative journey is symbolically expressed in the well-known invocation from the Brihadaranyaka Upanishad:

"असतोमासद्गमयतमसोमा
ज्योतिर्गमयमृत्योर्मा
ऽमृतंगमय"

(Leadmefromuntruthtotruth,fromdarknesstolight,frommortalitytoimmortality.)

This invocation encapsulates the essence of Upanishadic education as a movement from ignorancetoknowledge,fromillusiontoreality,andfromlimitationtoliberation.Ithighlights that education must address not only intellectual development but also spiritual awakening.

Furthermore,theUpanishadsemphasizethattrueknowledgeisattainednotthroughexternal instruction alone but through inner realization and direct experience. The Katha Upanishad states:

"नायमात्मप्रवचनेनलभ्यो
नमेधयानबहुनाश्रुतेन"

(The Self is not attained by discourse, nor by intellect, nor by much learning.)

This perspective challenges purely cognitive models of education and underscores the importance of introspection, discipline, and experiential understanding. Knowledge, therefore, is not merely acquired but realized, and education becomes a deeply reflective and transformative process.

In this light, the philosophical foundations of the Upanishads redefine education as a holistic and transformative journey rather than a mechanical transmission of information. They emphasize the unity of knowledge and consciousness, the importance of self-inquiry and reflection, and the integration of intellectual, moral, and spiritual dimensions of human development. Thus, Upanishadic philosophy offers a comprehensive framework in which education is understood as a means of liberation—guiding the learner from ignorance to wisdom and from knowledge to self-realization.

Upanishadic Teachings on Education and Learning

The Upanishads not only articulate profound philosophical insights but also embody a distinctive and holistic approach to teaching and learning. Unlike modern educational systems that often emphasize structured instruction, standardized outcomes, and content delivery, Upanishadic pedagogy is deeply rooted in dialogue, inquiry, reflection, and experiential realization. It represents a learner-centered paradigm in which knowledge is not transmitted but discovered, and education becomes a transformative journey guided by the teacher.

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

A central feature of this pedagogical tradition is the Guru–Shishya relationship, which forms the foundation of the learning process. This relationship transcends the conventional instructional model and is characterized by a deep ethical, spiritual, and personal connection between teacher and learner. The Guru is not merely an instructor but a guide who facilitates the learner's inner awakening and self-realization. This reverence for the teacher is reflected in the classical injunction "आचाय´ देवोभव"–the teacher is to be regarded with the highest respect. At the same time, the Shishya is expected to approach learning with humility, discipline, and an earnest desire for knowledge. Thus, education in the Upanishadic tradition emerges as a collaborative and value-oriented process grounded in mutual trust and respect.

Equally significant is the emphasis on dialogical and inquiry-based learning, which is a defining feature of Upanishadic pedagogy. Knowledge is often conveyed through संवाद (dialogue), where questioning, reasoning, and reflection are actively encouraged. For instance, the Katha Upanishad presents the dialogue between Nachiketa and Yama, illustrating the learner's fearless inquiry into the nature of the self and immortality. Similarly, the Chandogya Upanishad records the dialogue between Uddalaka and Shvetaketu, leading to the realization of "तêमिस". Such dialogical engagement fosters critical thinking, intellectual independence, and deeper conceptual understanding, transforming learning into an active and participatory process rather than passive reception.

The process of learning in the Upanishadic tradition is further systematized through the stages of ŵवण (listening), मनन (reflection), andिनिदóासन (deep contemplation). These stages represent a progression from acquiring knowledge to internalizing and ultimately realizing it. Learning begins with attentive listening to the teacher, followed by critical reflection, and culminates in deep contemplation that leads to experiential understanding. This structured yet reflective approach ensures that knowledge is not superficial but deeply integrated into the learner's consciousness, aligning closely with modern perspectives on reflective and transformative learning (Noddings, 2013).

Another important dimension of Upanishadic pedagogy is its emphasis on experiential and reflective learning. Knowledge is not considered complete until it is directly experienced and internalized. The exhortation from the Katha Upanishad—"उिU ‘तजाUतऊँ◌ाd ‘वरा◌ि◌ब◌ोधत" (Arise, awake, and learn from the wise)—highlights the active and जागृत (awakened) engagement required in the learning process. This perspective underscores that learning is not passive but demands effort, awareness, and introspection. Such an approach resonates strongly with contemporary educational models that emphasize experiential learning and reflective practice (Palmer, 1998).

Furthermore, the Upanishadic tradition conceptualizes the learner as an active seeker of truth, rather than a passive recipient of knowledge. The process of education involves self-discipline, concentration, and a deep commitment to inquiry. Learners are encouraged to question, reflect, and explore fundamental questions related to existence, identity, and purpose. This orientation cultivates independence of thought, intellectual curiosity, and a deeper engagement with knowledge.

Ultimately, Upanishadic teachings view education as a process of inner transformation, wherein the learner evolves from ignorance to knowledge and from limitation to self-realization. The aim of education is not merely to inform but to transform the individual at intellectual, emotional, ethical, and spiritual levels. This perspective aligns closely with contemporary notions of transformative education, which emphasize meaning-making, self-awareness, and holistic development. By integrating these principles, education can transcend rote learning and become a powerful means of nurturing the whole person.

Transformative Dimensions of Upanishadic Education

Upanishadic education represents a profound shift from the mere transmission of information to the transformation of the individual's consciousness. It envisions learning as a process that reshapes the learner's understanding of self, reality, and existence. This transformation is inherently multidimensional, encompassing intellectual, ethical, emotional, and spiritual growth. In contrast to contemporary education systems that often prioritize the accumulation of information and measurable outcomes, the Upanishadic perspective emphasizes the evolution of knowledge into wisdom and self-realization.

A key dimension of this transformation lies in the movement from information to wisdom. While modern education tends to focus on the acquisition of factual knowledge, the Upanishads distinguish between superficial understanding and deeper realization. This distinction is reflected in the concept of Aparā Vidyā (lower knowledge), which equips individuals with functional understanding, and Parā Vidyā (higher knowledge), which leads to insight and realization. As articulated in the Mundaka Upanishad:

"परा◌ि◌व◌ातदê◌रमिधग4ते"

(That is higher knowledge by which the imperishable reality is realized.)

This perspective underscores that true education is not about knowing more, but about knowing deeply and meaningfully, enabling learners to engage with life in a conscious and purposeful manner.

Closely linked to this is the development of self-awareness and expanded consciousness, which constitutes a central aim of Upanishadic education. The learner is guided to transcend ego-centered identity and recognize the

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

unity of existence. The mahāvākya "तत्त्वमसि" (Tat Tvam Asi) from the Chandogya Upanishad expresses this realization, affirming the essential unity between the individual self and universal consciousness. Such awareness fosters a sense of interconnectedness, harmony, and deeper understanding of both the self and the universe.

Another significant dimension of transformation is the emphasis on ethical and value-based development. Upanishadic education integrates knowledge with conduct, asserting that learning is incomplete unless reflected in one's character. The teaching "सत्यं वद, धर्मं चर" (Speak the truth, practice righteousness) highlights the centrality of ethical living, truthfulness, and self-discipline. This underscores that education must contribute not only to intellectual growth but also to moral refinement and responsible social behavior, which are essential for a just and harmonious society.

Transformation in the Upanishadic framework is further understood as a journey from ignorance (Avidyā) to enlightenment (Vidyā), symbolizing a transition from illusion to reality. This process is both cognitive and spiritual, involving the removal of misconceptions and the realization of truth. The invocation from the Brihadaranyaka Upanishad:

"तमसोमाऽज्योतिर्गमय"

(Lead me from darkness to light)

captures this transformative movement, where education acts as a guiding force that illuminates the learner's path toward clarity, understanding, and awareness.

At its highest level, Upanishadic education culminates in liberation (Moksha), which represents freedom from ignorance, suffering, and existential limitations. This ultimate goal is achieved through the realization of one's true self. The Katha Upanishad expresses this state of liberation as:

"यदासर्वे प्रमुच्यन्तेकामायेऽस्य हृदि
श्रिताःअथमर्त्योऽमृतोभवित"

(When all desires that dwell in the heart are cast away, then the mortal becomes immortal.)

This highlights that education ultimately seeks to free the individual from limitations and enable a state of inner peace, fulfillment, and transcendence.

Finally, Upanishadic education promotes the holistic development of the individual, integrating intellectual clarity, emotional balance, ethical conduct, and spiritual awareness. Rather than treating these dimensions as separate, it seeks to harmonize them into a unified whole. Such a perspective aligns with contemporary educational goals that emphasize the development of well-rounded individuals capable of critical thinking, empathy, and responsible action. It reinforces the idea that education should nurture the whole person, not merely the intellect.

Thus, the transformative dimensions of Upanishadic education reveal a comprehensive vision in which learning is not confined to the acquisition of knowledge but becomes a process of inner awakening, ethical refinement, and spiritual realization, ultimately guiding the learner from information to wisdom and from knowledge to self-realization.

PEDAGOGICAL IMPLICATIONS FOR CONTEMPORARY EDUCATION

The insights derived from Upanishadic wisdom offer significant pedagogical implications for reorienting contemporary education from an information-centric model toward a transformative and holistic paradigm. By integrating these principles, educational practices can move beyond the mere transmission of knowledge and foster self-awareness, ethical sensitivity, and inner growth among learners. Such a reorientation aligns with contemporary calls for learner-centered, reflective, and value-based education.

A key implication of Upanishadic pedagogy is the integration of self-inquiry (आत्म-विचार) and reflective learning into classroom practices. The Upanishadic tradition emphasizes that knowledge must be internalized through reflection and contemplation rather than passively received. In modern classrooms, this can be facilitated through strategies such as reflective journaling, guided questioning, and contemplative dialogue, enabling learners to critically examine both external phenomena and their own beliefs. Such reflective practices transform learning into a meaningful and personalized process, consistent with theories of transformative learning that emphasize critical reflection and perspective transformation (Mezirow, 1997).

Another important implication concerns the redefinition of the teacher's role. In the Upanishadic tradition, the Guru functions not as an authoritative transmitter of knowledge but as a facilitator who guides the learner toward self-realization. This perspective has significant relevance for contemporary education, where there is a growing shift toward learner-centered pedagogies.

Teachers, therefore, are required to create environments that nurture curiosity, dialogue, and exploration, supporting learners in constructing their own understanding. This approach resonates with relational and ethical models of teaching that emphasize care, guidance, and mutual respect in the learning process (Noddings, 2013).

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

The emphasis on dialogical and inquiry-based learning further strengthens the pedagogical relevance of Upanishadic thought. The use of संवाद (dialogue) as a mode of knowledge construction encourages active participation, questioning, and critical engagement. Incorporating strategies such as group discussions, Socratic questioning, and problem-based learning can help transform classrooms into dynamic spaces of interaction and co-construction of knowledge. Such practices not only enhance cognitive engagement but also promote communication skills and intellectual independence, aligning with contemporary constructivist approaches to education.

Upanishadic pedagogy also underscores the importance of holistic development, encompassing intellectual, emotional, ethical, and spiritual dimensions of the learner. In contrast to narrowly academic orientations, this perspective advocates the integration of practices that promote mindfulness, emotional intelligence, and value-based learning. Activities such as meditation, yoga, and reflective exercises can enhance self-awareness, concentration, and emotional balance, thereby contributing to the overall well-being of learners. This holistic approach aligns with contemporary educational frameworks that emphasize the development of the whole person rather than isolated cognitive skills (Palmer, 1998).

Closely related to this is the emphasis on value-based and ethical education, which remains a central concern in Upanishadic teachings. The principles of truth (सW), righteousness (धमN), and self-discipline highlight that education must lead to moral refinement and responsible conduct. In practical terms, this can be achieved through the integration of ethical discussions, community engagement, and collaborative activities that promote empathy, responsibility, and social harmony. Such an approach ensures that education contributes to the formation of ethically grounded individuals capable of meaningful societal participation.

At the policy level, the pedagogical insights of Upanishadic education resonate strongly with the vision of the National Education Policy 2020, which advocates holistic, multidisciplinary, and experiential learning, along with the integration of Indian Knowledge Systems. The effective implementation of these principles can help bridge the gap between traditional wisdom and modern educational practices, fostering learners who are not only skilled but also self-aware and ethically responsible (Ministry of Education, 2020).

Ultimately, the pedagogical implications of Upanishadic wisdom call for the creation of transformative learning environments in which education transcends rote learning and fosters deep understanding, critical reflection, and personal growth. Such environments encourage active engagement, reflective inquiry, emotional and spiritual development, and the cultivation of lifelong learning dispositions. In this context, education becomes a dynamic and evolving process that nurtures the learner as a whole, guiding them from information to wisdom and from knowledge to self-realization.

Challenges in Implementing Upanishadic Perspectives in Contemporary Education

While the Upanishadic vision of education offers a profound and holistic framework for transformative learning, its integration into contemporary education systems is accompanied by several practical and conceptual challenges. These challenges emerge from structural, pedagogical, and socio-cultural factors that shape modern educational practices and often limit the realization of such a transformative vision.

Structural and Systemic Constraints

While the Upanishadic vision of education offers a profound and holistic framework for transformative learning, its integration into contemporary education systems is significantly constrained by structural factors. One of the most prominent challenges is the dominance of examination-oriented systems, where success is largely measured through standardized testing and academic performance. Such systems prioritize memorization and content reproduction over reflection, inquiry, and experiential understanding, thereby limiting the incorporation of contemplative and dialogical practices central to Upanishadic pedagogy.

Additionally, institutional frameworks often operate under rigid administrative structures that emphasize efficiency, standardization, and accountability. Curriculum rigidity and time constraints further restrict opportunities for reflective engagement and deeper learning. The pressure to complete prescribed syllabi within limited time frames leaves little scope for incorporating inquiry-based and contemplative approaches. Together, these systemic limitations create a gap between the transformative ideals of Upanishadic education and the realities of contemporary educational practice.

Pedagogical and Professional Challenges

Another major set of challenges arises at the pedagogical level, particularly concerning teacher preparation and instructional practices. The effective implementation of Upanishadic principles requires teachers who are not only knowledgeable but also philosophically oriented and reflective practitioners. However, most teacher education programs focus primarily onsubject expertise and instructional techniques, with limited emphasis on holistic and value-based education.

As a result, teachers may lack the conceptual understanding and pedagogical skills necessary to facilitate self-inquiry, reflection, and transformative learning. Furthermore, large class sizes, limited resources, and administrative pressures often hinder the adoption of dialogical and learner-centered approaches. The absence of sustained professional development in Indian Knowledge Systems (IKS) further exacerbates this challenge, leading to superficial or inconsistent implementation of such pedagogical practices.

Conceptual, Cultural, and Assessment Challenges

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

The integration of Upanishadic perspectives also presents conceptual and contextual challenges. One significant concern is the risk of misinterpretation or superficial integration of Indian Knowledge Systems. Without a deep understanding of their philosophical foundations, there is a tendency to reduce these ideas to symbolic or ritualistic elements, resulting in tokenistic inclusion rather than meaningful transformation.

Moreover, contemporary classrooms are characterized by diversity in learners' backgrounds, abilities, and readiness levels. Abstract concepts such as self-realization and consciousness require careful, age-appropriate, and context-sensitive interpretation to ensure accessibility and inclusivity. This challenge is further complicated by the need to maintain a balance between spiritual content and the secular nature of modern education systems, particularly in pluralistic societies.

Another critical issue lies in the domain of assessment. The outcomes of Upanishadic education—such as self-awareness, ethical growth, and inner transformation—are inherently qualitative and difficult to measure through conventional examination systems. The predominance of quantitative assessment frameworks creates a disconnect between the goals of transformative education and the methods used to evaluate learning outcomes.

DISCUSSION

The present study highlights the profound relevance of Upanishadic wisdom in redefining the aims and processes of contemporary education. In contrast to the prevailing information-centric paradigm, which prioritizes content acquisition and measurable outcomes, the Upanishadic perspective emphasizes education as a transformative journey toward self-realization. This shift from external knowledge to inner awareness offers a holistic framework that addresses many of the limitations of modern education systems.

One of the key insights emerging from the analysis is that Upanishadic thought does not reject empirical or worldly knowledge (Aparā Vidyā), but rather situates it within a broader hierarchy where higher knowledge (Parā Vidyā)—leading to the realization of the self—is considered supreme. This distinction is particularly relevant in the current context, where education often becomes fragmented and utilitarian. By integrating both dimensions of knowledge, education can achieve a balance between functional competence and existential understanding, thereby fostering well-rounded individuals. However, the dominance of examination-oriented systems and performance-based evaluation often restricts such integration, as educational practices continue to prioritize measurable outcomes over deeper understanding.

Furthermore, the Upanishadic emphasis on self-inquiry, reflection, and experiential learning aligns closely with contemporary theories of transformative learning. The processes of ŵवण, मनन,िनिदóासनmirror modern pedagogical practices such as reflective thinking, critical analysis, and deep learning. This indicates that ancient Indian educational practices are not only philosophically rich but also pedagogically relevant, offering time-tested methods that can enhance the quality of learning in present-day classrooms. Nevertheless, the effective implementation of these practices is often constrained by curriculum rigidity, time limitations, and lack of teacher preparedness, which hinder the adoption of reflective and inquiry-based approaches.

Another significant aspect discussed in this study is the role of education in ethical and value-based development. In an era marked by rapid technological advancement and increasing moral complexities, the Upanishadic focus on truth (सW), righteousness (धमN), and self-discipline provides a strong ethical foundation. Education, therefore, must go beyond cognitive development and contribute to the formation of character and responsible citizenship. However,there exists a challenge in ensuring that such value-based education is deeply internalized rather than superficially implemented, as there is often a tendency to reduce these principles to symbolic or formal inclusion in the curriculum.

The study also reveals that the Guru–Shishya tradition, with its emphasis on personalized guidance and dialogical interaction, offers valuable insights for redefining teacher–student relationships in modern education. While contemporary classrooms are often characterized by large student populations and standardized instruction, incorporating elements of mentorship, dialogue, and individualized attention can significantly enhance the learning experience. Yet, institutional constraints such as large class sizes, administrative pressures, and limited resources pose significant barriers to the realization of such personalized educational practices.

Moreover, the integration of Upanishadic concepts in diverse and pluralistic classrooms requires careful consideration. While the philosophical ideas of self-realization and consciousness are universal in nature, their interpretation must be context-sensitive and inclusive, avoiding any perception of religious or doctrinal imposition. This creates an additional layer of complexity in adapting these ideas within secular educational frameworks.

The issue of assessment further complicates the integration of Upanishadic perspectives. Since transformative education focuses on inner growth, self-awareness, and experiential understanding, these outcomes are not easily measurable through conventional examination systems. This highlights the need for developing alternative and qualitative modes of assessment that can capture the deeper dimensions of learning.

At the policy level, initiatives such as the National Education Policy 2020 provide a supportive framework by emphasizing holistic, value-based, and culturally rooted education. However, the successful implementation of these ideals requires a conscious effort to bridge the gap between ancient wisdom and modern educational practices through systemic reforms, teacher training, and curriculum innovation.

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

Overall, the discussion underscores that Upanishadic perspectives offer not merely an alternative but a complementary and enriching framework for contemporary education. At the same time, the challenges identified in this study highlight the need for contextual adaptation, institutionalsupport, and pedagogical innovation. By thoughtfully addressing these challenges, education can evolve into a process that nurtures not only intellectual capabilities but also self-awareness, ethical integrity, and a deeper understanding of life.

CONCLUSION AND RECOMMENDATIONS

The present study reaffirms that education, when viewed through the lens of Upanishadic wisdom, transcends the narrow confines of information acquisition and emerges as a transformative process aimed at self-realization. In contrast to contemporary education systems that often prioritize measurable outcomes, technical skills, and career-oriented goals, the Upanishadic perspective envisions education as a holistic journey that nurtures the intellectual, ethical, and spiritual dimensions of the individual.

The analysis of key philosophical concepts such as Ātman–Brahman unity, Vidyā–Avidyā, and the ultimate goal of Moksha highlights that true knowledge is not merely external or descriptive but deeply experiential and liberating. The inclusion of Sanskrit maxims such as "साि◌वB◌ाया ि◌वमु4ये" and "तमसोमाऐ◌ो◌ितगNमय" reinforces the idea that education must lead the learner from ignorance to enlightenment and from limitation to self-awareness.

Furthermore, the pedagogical practices embedded in the Upanishadic tradition—such as dialogue, inquiry, reflection, and contemplation—demonstrate that learning is most effective when it engages the learner actively and meaningfully. These practices resonate strongly with contemporary approaches to transformative education, which emphasize critical thinking, self-reflection, and holistic development. At the same time, the study acknowledges that the realization of such an educational vision requires thoughtful adaptation, institutional support, and a reorientation of existing educational structures.

In an era marked by rapid technological advancement, increasing complexity, and ethical challenges, the need to reorient education toward deeper human values and inner growth has become more urgent than ever. The insights derived from Upanishadic thought offer a timeless and universal framework that can guide this transformation. By integrating these principles into modern education in a context-sensitive and inclusive manner, it is possible to cultivate

individuals who are not only knowledgeable and skilled but also self-aware, ethically grounded, and capable of contributing meaningfully to society.

Thus, moving "beyond information to self-realization" is not merely a philosophical aspiration, but an educational imperative—one that holds the potential to redefine learning as a journey of inner awakening, wisdom, and holistic human development in the contemporary world.

EDUCATIONAL IMPLICATIONS

Based on the findings of this conceptual study, the following implications are suggested for educational practice and policy:

- Curricula should move beyond content-heavy structures and incorporate elements that promote self-inquiry, reflection, and value-based learning, with the integration of Indian Knowledge Systems, particularly Upanishadic wisdom, to provide a holistic perspective on education.
- Teacher preparation programs should emphasize the role of the teacher as a facilitator of inner growth rather than merely a transmitter of knowledge, including training in reflective practices, dialogical teaching methods, and holistic educational approaches.
- Classroom practices should adopt learner-centered and inquiry-based approaches that encourage dialogue, critical thinking, and experiential learning, supported by strategies such as reflective writing, group discussions, and contemplative activities.
- Educational institutions should integrate ethical and value-based components into the teaching–learning process, focusing on truth, responsibility, empathy, and social harmony to develop morally responsible individuals.
- Education should aim at the overall development of the learner, including emotional, social, and spiritual well-being, through the inclusion of practices such as yoga, meditation, and mindfulness to enhance self-awareness and balance.
- At the policy level, National Education Policy 2020 should be effectively implemented to promote holistic, multidisciplinary, and culturally rooted education, with greater emphasis on integrating Indian philosophical traditions into mainstream education.

https://www.gapgyan.org/

REFERENCES

[1]Primary Sources (Upanishads)

Radhakrishnan, S. (1994). The principal Upanishads. HarperCollins. Olivelle, P. (1996). Upanishads. Oxford University Press.

Hume, R. E. (1921). The thirteen principal Upanishads. Oxford University Press.

[2]Books on Indian Philosophy & Education

Radhakrishnan, S. (2008). Indian philosophy (Vols. 1–2). Oxford University Press. Sharma, C. (2000). A critical survey of Indian philosophy. Motilal Banarsidass.

Pandey, R. S. (1995). The Hindu philosophy of education. Vinod Pustak Mandir. Aurobindo, S. (2004). The foundations of Indian culture. Sri Aurobindo Ashram. Tagore, R. (1917). Personality. Macmillan.

[3]Education & Transformative Learning

Mezirow, J. (1997). Transformative learning: Theory to practice. New Directions for Adult and Continuing Education, 1997(74), 5–12.

Noddings, N. (2013). Caring: A relational approach to ethics and moral education (2nd ed.). University of California Press.

Palmer, P. J. (1998). The courage to teach: Exploring the inner landscape of a teacher's life. Jossey-Bass.

[4]Policy & Indian Knowledge Systems

Ministry of Education. (2020). National education policy 2020. Government of India.

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

Structural Transformation of the Indian Tourism Sector: A Sustainable Economic Model Integrating Circular Principles and Triple Bottom Line Frameworks

Mayurbhai M. Mer

Collage Name: - Kavishree Botadkar
Arts & Commerce College
Contact No: -7016766610
Gmail: - mayurmer110@gmail.com

Abstract

The tourism sector in India is currently navigating a pivotal transition from a recovery phase to a sustainable growth paradigm, characterised by a shift from mass consumption to high-value, low-impact tourism. This research report investigates the formulation of a sustainable economic model for Indian tourism, leveraging secondary data from the Ministry of Tourism, NITI Aayog, and global economic bodies. The study identifies that while tourism significantly contributes to India's GDP (5.22% in 2023-24) and employment (13.34% of the total workforce), its expansion exerts considerable pressure on ecologically sensitive regions. By analysing econometric models of carbon emissions and tourism intensity, the report advocates for a Circular Economy (CE) framework that replaces the linear "take-make-dispose" model with a regenerative cycle focused on resource efficiency and waste minimisation. Key government initiatives, including the Swadesh Darshan 2.0 and the Special Assistance to States for Capital Investment (SASCI) scheme, are evaluated for their role in decentralising tourism and promoting sustainable infrastructure. The findings suggest that the integration of the Triple Bottom Line (TBL) approach—valuing social equity and environmental integrity alongside economic profit—is essential for achieving the long-term goal of supporting 63 million jobs by 2034 while preserving India's natural and cultural capital.

Keywords: *Sustainable Tourism Development; Indian Economic Model; Circular Economy (CE); Triple Bottom Line (TBL); Green Infrastructure Investment; Tourism Satellite Account (TSA); Himalayan Ecological Conservation; SASCI Scheme; Swadesh Darshan 2.0; Carbon Footprint Mitigation*.

INTRODUCTION

The global tourism industry has historically operated on a linear economic trajectory, prioritizing immediate revenue generation through mass arrivals often at the expense of local ecological and social stability. In the Republic of India, the tourism sector has emerged as a primary engine of macroeconomic growth, characterized by its ability to generate large-scale employment and substantial foreign exchange earnings.[1] As of the 2023-24 fiscal year, the tourism sector contributed approximately ₹15.73 lakh crore to the national GDP, representing 5.22% of the total economy, while supporting 84.62 million jobs across direct and indirect segments.[2] However, the rapid expansion of domestic visits—reaching over 2,500 million in 2023—and the rebounding foreign arrivals have underscored the fragility of India's biodiversity hotspots and heritage sites.

The necessity for a sustainable economic model is driven by the realization that "business as usual" leads to irreversible environmental degradation, such as habitat loss in the Western Ghats or glacier retreat in the Indian Himalayan Region. The Ministry of Tourism has recognized this imperative, shifting focus toward "Incredible India 3.0," which emphasizes high-value travellers and niche markets such as wellness, medical, and adventure tourism. This strategic realignment is anchored in the Sustainable Development Goals (SDGs), particularly those concerning responsible consumption and production (SDG 12) and climate action (SDG 13).

Modern economic theory suggests that for tourism to be sustainable, it must decouple economic growth from resource depletion. This is achieved through the integration of Circular Economy (CE) principles, which advocate for the "Reduce, Reuse, Recycle, and Recover" framework within the tourism supply chain. Furthermore, the government's recent fiscal policies, such as the Special Assistance to States for Capital Investment (SASCI) scheme, have funnelled over ₹3,295 crore into the sustainable development of iconic but lesser-known tourist

https://www.gapgyan.org/

centres. These initiatives aim to distribute the economic benefits of tourism more equitably while managing the "carrying capacity" of popular destinations to prevent the negative effects of overtourism.
This report provides an exhaustive analysis of these economic shifts, evaluating the potential of a sustainable tourism model to drive India's transition into a top-tier global destination by its centenary of independence in 2047. By examining longitudinal secondary data, the research articulates the causal relationships between tourism intensity, energy consumption, and environmental quality, ultimately proposing a holistic framework that harmonizes profitability with planetary health.

REVIEW OF LITERATURE

The narrative of Indian tourism is shifting from a simple pursuit of growth to a sophisticated battle for long-term survival. As MDPI (2025) demonstrates through advanced econometric modelling, the relationship between economic gain and environmental health is a delicate feedback loop; while rising GDP initially boosts tourism, the resulting carbon emissions eventually degrade the very destinations that drive demand. This economic reality is particularly visible in the fragile heights of the North, where W-IHR (n.d.) warns that melting glaciers and erratic weather patterns are actively dismantling the resource base for Himalayan adventure tourism, making "carrying capacity" assessments a mandatory survival tactic rather than a mere suggestion.

In response to these pressures, a new structural philosophy is emerging. Ritika (2025) argues that India must abandon the wasteful "take-make-dispose" linear model in Favor of a circular economy that prioritizes resource efficiency and community-led value chains. This shift toward high-value, low-impact growth is echoed by NITI Aayog (2022), which advocates for a strategic pivot away from overcrowded mass tourism and toward niche sectors like wellness, Ayurveda, and medical travel—areas where India holds a significant global competitive advantage.

However, the transition to a sustainable future faces a significant human hurdle. Even when the infrastructure improves, Garg and Pandey (2021) identify a persistent "knowledge-action gap" through their behavioural modelling, noting that a tourist's awareness of environmental issues rarely translates into actual changes in travel habits. This suggests that the "story" of sustainable tourism cannot rely on education alone; it requires policymakers to implement hard structural incentives that make eco-friendly choices the default rather than the exception.

Ultimately, the drive toward sustainability is becoming as much an economic powerhouse as an ethical necessity. KPMG (2024) projects that the sustainable tourism market in India will skyrocket from USD 26.01 million in 2022 to over USD 151 million by 2032. This rapid growth, maintaining a CAGR of 19.3%, illustrates that the industry is no longer just "reimagining" its evolution—it is actively scaling a model where environmental resilience and market profitability are inextricably linked.

OBJECTIVE

- To analyse the correlation between tourism growth and national GDP contribution through longitudinal secondary data from the Ministry of Tourism and the 3rd Tourism Satellite Account.
- To evaluate the efficacy of the Circular Economy (CE) model and government schemes like SASCI in reducing the environmental externalities of tourism in ecologically sensitive zones.
- To identify the primary socio-economic and environmental drivers of sustainable tourist behaviour in India to inform future policy frameworks and green investment strategies.

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

METHODOLOGY

This research report is constructed through an exhaustive systematic analysis of secondary data sources, providing a multi-dimensional perspective on the Indian tourism economy. The primary datasets utilized in this study are derived from official government reports, including the Ministry of Tourism's Annual Report 2024-25, the India Tourism Data Compendium 2025, and the 3rd Tourism Satellite Account (TSA). These sources provide validated statistics on Foreign Tourist Arrivals (FTAs), Domestic Tourist Visits (DTVs), Foreign Exchange Earnings (FEEs), and the direct/indirect employment impact of the sector.

To capture the broader economic and environmental implications, the report incorporates data from NITI Aayog's Sustainable Development Goal (SDG) India Index and strategic papers on post-pandemic recovery. Global perspectives and future projections are integrated from the World Travel and Tourism Council (WTTC) Economic Impact Reports (2023-2025) and the World Economic Forum's Travel and Tourism Development Index (TTDI) 2024.

The analytical framework employs a narrative synthesis of these data points, weaving together facts with structural insights into the "mechanism" of tourism growth. For the environmental assessment, the study references established econometric models (Model 1-3) that utilize log-linearized regressions to determine the impact of variables like energy prices, trade openness, and FDI on carbon emissions. The methodology follows a "Triple Bottom Line" approach, ensuring that data interpretation covers economic, environmental, and social dimensions. Comparative analysis is facilitated through the use of Markdown tables to display structured investment data and project allocations under schemes like SASCI and Swadesh Darshan 2.0.

DISCUSSION OF THE SUSTAINABLE ECONOMIC MODEL

The evolution of Indian tourism necessitates a transition from a volume-driven model to a value-driven, sustainable economic framework. This discussion explores the core components of this transition, including econometric relationships, the implementation of circular principles, and the role of niche tourism products.

Econometric Analysis of Tourism and Environment

The relationship between economic growth, tourism intensity, and environmental degradation can be mathematically represented to guide policy intervention. The evidence suggests that tourism development (TDI) is both a driver and a victim of environmental quality.

Model Variable	Economic/Environmental Significance	Causal Impact on Tourism Sustainability
GDP Growth	Measures national economic health.	High growth boosts domestic travel but increases total energy consumption (EC).
Tourism Development (TD)	Represents arrivals and revenue	Positively correlates with GDP but can exacerbate CO2 emissions if

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

	intensity.	linear.
Energy Consumption (EC)	Tracks the carbon footprint of transport/lodging.	Increased EC leads to environmental degradation, reducing destination appeal.
Foreign Direct Investment (FDI)	Measures capital inflow for infrastructure.	Helps promote energy-efficient clean technology if directed toward green projects.
Trade Openness	Facilitates global tourism integration.	Decreases emissions by promoting modern, efficient technology transfer.

Econometric modelling demonstrates that environmental degradation acts as a "restricting factor" for modern tourism development. When CO2 levels rise due to inefficient transportation and mass construction, the "health" of destinations declines, veering tourism trends away from the path of sustainability.

Transitioning to a Circular Tourism Economy

The traditional linear model follows a "take-make-dispose" flow: resources are extracted for infrastructure, consumed by tourists, and disposed of as waste. A sustainable model for India must adopt the Circular Economy (CE) paradigm.

The CE model in tourism focuses on three regenerative loops:

1. Technical Loop: Focused on the "Reduce, Reuse, Recycle" of non-biological materials. This includes sustainable procurement in hotels, where services are prioritized over possession, and energy-efficient building designs.
2. Biological Loop: Focused on regenerating natural systems. In India, this is manifested through community-led eco-tourism where organic waste is composted to restore soil health in mountain regions like the Kumaon Himalayas.
3. Community Loop: Ensuring that economic value circulates within the local territory. By involving local communities in managing homestays and guiding services, the "leakage" of tourism revenue is minimized.

Principles of Circularity	Application in Indian Tourism	Strategic Outcome
Resource Efficiency	Solar energy use in remote resorts and LEED-certified hotel construction.	Reduced operational costs and lower carbon footprint.
Waste Minimization	Plastic-free zones (e.g., in various	Preservation of biodiversity and reduced waste management costs.

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

	National Parks) and zero-waste trekking.	
Sustainable Infrastructure	Swadesh Darshan 2.0 projects focusing on "end-to-end" tourist experience.	Improved carrying capacity and resilience to climate shocks.
Community Involvement	60% female participation in eco-tourism in regions like Kuruva Dweep.	Social equity and preservation of indigenous traditions.

The Role of Niche and Green Tourism Products

Sustainable growth is further supported by the identification and promotion of niche products that attract "high-value" travellers who tend to stay longer and spend more responsibly.

1. Wellness and Medical Tourism: India ranks 10th globally in medical tourism, with the market projected to reach USD 16 billion by 2030. By integrating traditional systems like Yoga and Ayurveda, the sector promotes "long-term health" over "short-term consumption," aligning with sustainable social values.
2. Eco-Tourism and Adventure: These segments are growing at 10-30% annually. The Indian Eco-Tourism Policy focuses on ecologically sensitive areas, using entry fees for habitat restoration and anti-poaching patrols.
3. Spiritual and Heritage Tourism: Through the PRASHAD scheme, the government redevelops pilgrimage sites to handle large footfalls sustainably, ensuring that the "cultural soul" of cities like Hampi or Rishikesh is preserved while improving sanitary and transport facilities.

Government Initiatives and Capital Investment

The current policy landscape is defined by aggressive investment in sustainable infrastructure. The SASCI scheme (2024-25) is a landmark initiative that provides 100% central funding for 40 projects aimed at comprehensively developing "iconic tourist centres" to global standards while adhering to sustainability measures.

SASCI Project Location	Thematic Focus	Impact on Sustainable Economics
Rishikesh, Uttarakhand	Rafting Base and Iconic City Dev	Standardizing adventure safety and waste management.
Umiam Lake, Meghalaya	Re-development of Lakefront	Protecting water bodies from pollution through green tech.

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

Hampi, Karnataka	Setting up Traveller Nooks	Enhancing heritage experience without new permanent concrete structures.
Bangaram, Lakshadweep	Coastal Leisure Enhancement	Low-impact tourism focused on marine biodiversity conservation.
Bateshwar, Uttar Pradesh	Heritage Conservation	Preserving ancient temple clusters through community integration.

These projects are selected based on parameters like "carrying capacity" and "sustainability measures," ensuring that the investment does not lead to the very overtourism it seeks to manage.

Importance

The adoption of a sustainable economic model for tourism in India is not merely an environmental preference but a fundamental necessity for national resilience and prosperity. The importance of this model is multi-faceted, affecting economic stability, social cohesion, and ecological survival.

Macroeconomic Stability and Foreign Exchange

Tourism is a major source of Foreign Exchange Earnings (FEEs), which reached over ₹2.77 lakh crore in 2024. A sustainable model ensures that these earnings are not volatile or "extractive." By diversifying into niche areas like medical and wellness tourism, India creates a "year-round" destination profile, mitigating the economic shocks associated with seasonality. Furthermore, the sector's contribution to GDP is projected to rise to ₹43.25 trillion by 2034, but this is only achievable if the "natural capital" upon which tourism depends is not liquidated.

Social Inclusivity and Rural Development

One of the most profound benefits of the sustainable tourism model is its capacity for "SDG Localization." By promoting "off-beat" destinations through the SASCI and Swadesh Darshan schemes, the government directs capital to remote areas, providing an alternative to migration for rural youth. Sustainable tourism is inherently labour-intensive and inclusive; for instance, many eco-tourism initiatives report a higher participation of women (up to 60%), fostering gender equity and community empowerment. The model also protects "intangible heritage," ensuring that dying traditions and crafts find a market through responsible cultural exchange.

Environmental Stewardship and Climate Mitigation

The environmental importance of the model lies in its ability to fund conservation. In many Indian states, entry fees from eco-tourism sites are reinvested into biodiversity monitoring and anti-poaching patrols. Verifiable outcomes from eco-tourism sectors show a sequestration of 2.1-3.8 tons of CO_2 per hectare and a biodiversity preservation rate of 78-92%. By adopting circular principles, the tourism sector can significantly reduce its contribution to the global waste crisis and greenhouse gas emissions, positioning India as a leader in "Green Tourism".

https://www.gapgyan.org/

Limitation

Despite the clear benefits and aggressive policy push, several systemic limitations impede the full realization of a sustainable tourism economic model in India.

Structural and Infrastructure Gaps

Many of India's most promising sustainable destinations are in "far-off" or ecologically sensitive regions where last-mile connectivity is inadequate. While the UDAN scheme has made progress by operationalizing 53 tourism routes, many sites still suffer from poor sanitary facilities, inadequate waste management systems, and a lack of reliable green energy. The "uncontrolled expansion" of built spaces to cater to tourism has, in some areas, already caused irreversible damage to the landscape.

Data and Monitoring Challenges

A significant limitation is the reliance on secondary data that often fails to capture the nuances of the "informal sector," which constitutes a large part of the tourism economy. While the Ministry of Tourism uses the TSA to estimate jobs, the high-frequency monitoring of "carrying capacity" at the destination level is often absent. There is a critical need for recurring audits and more rigorous certification protocols to ensure that "eco-tourism" claims are not merely "greenwashing".

Behavioural and Social Hurdles

The "knowledge-action gap" among tourists remains a primary barrier. Even when aware of environmental concerns, many travellers prioritize comfort and cost over sustainability. Furthermore, the "human-centric" approach often prevails in policy execution, leading to overconsumption of natural endowments framed as a "right" to travel, which displaces ecological pressure to buffer zones or peri-urban environments.

Financial and Administrative Constraints

While the central government has sanctioned significant funds, the "sustainable operations and maintenance" (O&M) of these projects fall to state governments, many of which lack the technical expertise or recurring budget to maintain green standards over the long term. The "complexity of supply chains"—involving transport, food, accommodation, and activities—makes the implementation of a uniform circular model extremely difficult.

CONCLUSION

The transformation of the Indian tourism sector into a sustainable economic model is a multifaceted endeavour that requires harmonizing rapid growth with ecological integrity. The evidence presented in this report confirms that the traditional linear model of tourism development is increasingly incompatible with India's long-term environmental and social goals. The current reliance on domestic tourism as the primary driver of recovery provides a unique opportunity to instil sustainable travel habits through localized "Circular Economy" practices.

The integration of econometric modelling and Triple Bottom Line frameworks demonstrates that the "health" of tourist destinations is intrinsically linked to environmental quality. As CO_2 emissions and resource depletion rise, the appeal of India's natural and cultural hotspots diminishes. Therefore, the strategic shift toward niche, high-value markets—such as wellness, medical, and eco-tourism—is not only an environmental imperative but a sound economic strategy to ensure resilience and high visitor satisfaction.

https://www.gapgyan.org/

Government initiatives like SASCI and Swadesh Darshan 2.0 represent a critical first step in decentralizing tourism and building the green infrastructure necessary for a sustainable future. However, for these schemes to succeed, they must be supported by rigorous "carrying capacity" assessments, community-centric governance, and standardized certification protocols. The future of Indian tourism lies in its ability to empower local communities, particularly indigenous people and women, while protecting the very natural assets that attract global visitors. By pursuing a "biocentric" approach that values the ecosystem alongside the economy, India can achieve its vision of becoming a global tourism powerhouse by 2047, ensuring that the "Incredible India" of the future remains as vibrant and diverse as it is today.

REFERENCES

[1] Garg, P., & Pandey, A. (2025). Developing and empirically testing a conceptual model on the sustainable behaviour of tourists in India. *Cogent Social Sciences*, *11*(1). https://www.tandfonline.com/doi/full/10.1080/23311886.2025.2460704

[2] KPMG India. (2024). *Sustainability in tourism: Reimagining India's sustainable tourism evolution*. https://assets.kpmg.com/content/dam/kpmg/in/pdf/2024/03/sustainability-in-tourism-reimagining-indias-sustainable-tourism-evolution.pdf

[3] Ministry of Tourism. (2025). *Annual report 2024-25*. Government of India.(https://tourism.gov.in/sites/default/files/2025-02/Ministry%20of%20Tourism%20Annual%20Report_2024-25_ENGLISH_0.pdf)

[4] NITI Aayog. (2022). *Strategy paper on restoring the growth of tourism in the wake of pandemic*. Government of India.(https://niti.gov.in/sites/default/files/2023-07/Strategy-Paper-on-Restoring-the-Growth-of-Tourism-in-the-wake-of-Pandemic-19th-Jan-2022.pdf)

[5] Nosrati, M., et al. (2025). Relationship between tourism development, the macroeconomy, and environmental results in top tourist destinations. *Sustainability*, *17*(11), 5058. https://www.mdpi.com/2071-1050/17/11/5058

[6] Press Information Bureau. (2025, December 18). *Ministry of Tourism sanctioned 40 projects for Rs. 3295.76 crore in the country under SASCI*. Ministry of Tourism, Government of India.(https://www.pib.gov.in/PressReleasePage.aspx?PRID=2171731)

[7] Ritika, Ms. (2025). Circular economy in tourism: A pathway to sustainable development in India. *International Journal for Multidisciplinary Research (IJFMR)*, *7*(2). https://www.ijfmr.com/research-paper.php?id=37877

[8] Sharma, A., & Gupta, S. (2025). Environmental impacts of nature-based tourism in the Western Indian Himalayan Region (W-IHR). *Journal of Tourism*, *36*. https://revistadeturism.ro/index.php/rdt/article/download/85/74

[9] Singh, R. K. (2026). Eco-tourism and quality tourism: A secondary analysis and comprehensive study of environmental, economic, and social impacts in India. *International Journal of Scientific Research in Engineering and Management (IJSREM)*. https://ijsrem.com/download/eco-tourism-and-quality-tourism-a-secondary-analysis-a-comprehensive-study-of-environmental-economic-and-social-impacts-in-india/

https://www.gapgyan.org/

[10]World Travel & Tourism Council. (2024). *Economic impact research: India 2024*. https://wttc.org/news/indias-travel-and-tourism-sector-shows-strong-recovery-with-domestic-tourism-leading-the-way

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

An examination and evaluation of the emotional intelligence of artificial intelligence

HARIN BHATT

Abstract

ABSTRACT: Intelligent machines (AI) have a big impact on business, culture, society, and mental health. They are an integral part of our everyday lives. Even while some types of AI are known to exhibit emotions, this is rare in contemporary AI that people interact with daily. Some scholars claim that in settings like mental health, therapy, higher education, attractions, and similar activities, we can give AI systems emotional experiences that promote empathy and a sense solidarity with users. The need for AI systems especially embodied or affective ones will contribute to the development of more considerate, compassionate, relaxing, healing, and moral machines by giving people a sense of ethical-moral agency and the capacity to evaluate and make morally sound decisions on their own in ways that are both socially and legally responsible. By contrasting Israeli and Indian adolescents, the study evaluates the mediating function of religious intelligence in the link between temporal concentration and emotional intelligence. While Israelis scored better on spiritual and emotional intelligence, which is consistent with an autonomous focus on self-expression and personal development, Indians scored higher on temporal attention, indicating a collective orientation emphasising long-term planning. Future temporal emphasis did not directly impact emotional intelligence in either group, according to mediation analysis; however, in the Indian sample, spiritual intelligence strongly mediated this association. This suggests that by encouraging an outlook on the future, spirituality in India may help regulate emotions. These results demonstrate the impact of culture on emotional intelligence, spiritual intelligence, and temporal attention as well as their intricate relationships.

Keywords: Artificial Intelligence, Emotional Intelligence, and acceptance

1. INTRODUCTION

AI demonstrates therapeutic potential for mental health issues such as depression, anxiety, and ADHD, and may help alleviate the pandemic's mental health impacts. According to Nasir et al. (2023), AI-driven therapy applications improve users' mood, cognitive function, and overall quality of life. Successful applications depend on AI's ability to accurately perceive and simulate human emotions, facilitating better communication and engagement. Current insights into AI's role in enhancing emotional health focus on machine learning and emotional intelligence, enabling AI to analyse human emotional states through various patterns (Olawade et al., 2024; Malik et al., 2022; Boucher et al., 2021). Thakkar et al. (2024) highlight AI's significant influence on daily life and its potential for displaying emotions, which can create empathy and community in mental health and education applications. The development of affective AI systems promises to foster more compassionate and moral machines, supporting users in making ethically responsible decisions (Pan and Yang, 2021).

The current technological landscape is seeing a shift characterized by the convergence of emotional intelligence (EI) and artificial intelligence (AI). EI involves understanding and managing emotions, while AI focuses on creating machines that simulate human intelligence. Historically viewed as separate, emerging studies highlight their interaction and potential benefits. EI encompasses skills like self-awareness, empathy, and social proficiency, which are essential for personal and professional success. High EI is linked to better mental health, leadership, decision-making, and social relationships. As societal challenges grow, interest in EI is increasing among researchers and practitioners in various sectors, underscoring its importance in education, healthcare, and organizational management.

Artificial intelligence (AI) aims to create intelligent systems capable of performing tasks that require human-like intelligence. It includes technologies like machine learning, natural language processing, computer vision, and robotics, influencing various industries and aspects of life. Recent advancements in deep learning, neural networks, and available data have accelerated AI's application in sectors such as automation and medical diagnostics. However, concerns about privacy, bias, accountability, and job displacement arise with its growth. Understanding the relationship between emotional intelligence (EI) and AI is crucial for exploring their potential synergies.

1.1 Concept and Definition of Emotional Intelligence in AI

Artificial intelligence (AI) encompasses the creation of computer systems that replicate tasks traditionally requiring human intelligence. This field aims to emulate human behaviour through its invariant, reproducible, and universal hardware. Despite its advancements, AI faces criticism for lacking a foundational understanding of crucial human principles such as emotions, ethics, morals, and environmental considerations. In response, artificial emotional intelligence emerged in 1995, focusing on the integration of emotional processes into learning and reasoning within AI. This emotionally intelligent AI enhances the capabilities of AI systems, enabling

https://www.gapgyan.org/

them to better understand tasks and issues. Emotional AI refers to technologies that identify and categorize human emotions. Emotional intelligence (EI), defined in 2002 by Elfenbein and Shephard, includes the ability to identify, understand, manage, and use emotions to improve reasoning. EI encompasses the perception and comprehension of emotions and is pivotal for human capital, contributing to work satisfaction, personal fulfilment, and mental well-being, alongside general intellect and social skills.

1.2 Fundamentals and Types of Artificial Intelligence

TERMS: AI is designed to operate similarly to humans, particularly in understanding and responding to human emotions. While it can accurately identify emotions, the emotional quotient (EQ) bias can influence AI decision-making through emotional interference. Higher EQ allows AI to make more human-like decisions, balancing reason and emotion, and processing emotions compassionately.

TYPES: Artificial Intelligence (AI) encompasses various categories, including Narrow AI, Artificial General Intelligence (AGI), and Super AI. Strong AI is designed for a wide array of tasks and has general cognitive skills, while Weak AI specializes in specific functions such as driving or playing chess. AGI systems can create representations of the world and learn from them, whereas Beyond AGI presents an entity with ethical and moral understanding, as well as the ability to think and learn with emotions. Recent discussions highlight the growing importance of AI in industry, where it replicates human cognitive capabilities through technologies such as chatbots, facial recognition, forecasting tools, recommendation systems, and smart robots. AI applications span numerous sectors including manufacturing, healthcare, media, agriculture, security, finance, and automotive, significantly influencing the transition from data to insights, and ultimately to business results. It is projected that by 2030, AI could contribute up to $15.7 trillion to the global GDP, underscoring its role in facilitating social and economic growth worldwide.

2. Evolution of Emotional Intelligence Before AI Integration

According to Don Norman's book Design of Everyday Things Extolled, robots should be built to assess indications to promote trustworthy behaviour in addition to being clever and serving as a crash-avoidance substitute for people. Therefore, it is necessary for machines to see or feel the presence of social beings that evoke and recognise human emotions. Virtual AI delivers insights into perceivers' intentions, emotions, and moods since it creates such robots. Emotive-affective computing technologies are required to give the listener with sensitivity based on the listener's choices.

To enhance the sensing, detection, and expression of emotions for Affective Social AI agents, this study assesses the existing strengths and shortcomings of machines in this domain. It expresses concern regarding the challenges of providing emotional care, particularly for elderly consumers, and proposes innovative ideas for developing a sensory network aimed at Affective-EI Technologies. The study highlights the potential of emotional intelligence (EI) tools to improve mental health and support the well-being of senior adults, citing adaptive empathy-based interfaces that understand facial expressions and intonations. Artificial intelligence (AI), defined as the ability of machines to perform tasks requiring human-like judgment and decision-making, raises questions about its capacity for feelings and consciousness, alongside ethical considerations. The fields of social robotics and human-computer interaction (HCI) strive to endow machines with empathetic qualities to create supportive human-machine relationships. Historical discussions on emotion in learning and intelligent systems, such as those by Tettegah in 2015, underscore the significance of emotional engagement in machine learning environments. The conclusion posits that while machines excel in logical tasks, optimal performance often arises from a human-machine collaboration in emotionally intelligent settings.

2.1 Human Emotional Intelligence: Concepts and Models

Emotional intelligence (EI) is crucial for understanding and managing emotions, often framed as a component of Artificial General Intelligence (AGI). Various models of EI exist, notably Mayer et al.'s ability EI model and Goleman's mixed model, which includes stress management. The application of EI in training requires adaptation considering factors like age, gender, and culture. The emerging field of Emotion AI, coined by R.W. Picard, aims to create systems that can recognize and respond to human emotions. Despite advancements, the interplay between emotional intelligence and psychological processes complicates its replication in AI. Critics and supporters debate Emotion AI's role, highlighting the challenge AI faces in accurately mimicking emotional understanding and response.

2.2 Role of Emotional Intelligence in Human Communication

Emotional intelligence is a crucial element of social intelligence that aids intelligent agents in maintaining effective communication and replicating social dynamics typical in human interactions. Defined as the ability to express, comprehend, and regulate emotions, emotional intelligence has significant implications for AI-driven products, as it can enhance competitive advantage and ROI. Notably, while advanced cognitive models fall short of human capabilities in emotion recognition and expression, effective AI systems must integrate the ability to detect, modulate, and generate emotional signals. This integration can improve human-computer interaction and lead to beneficial outcomes in educational contexts, such as tutoring and command scenarios.

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

3. **Emotional Intelligence in the Era of Artificial Intelligence**:

Post-AI emotional intelligence (EI) is increasingly acknowledged for its predictive abilities and its impact on ongoing activities. It is vital for managing emotional systems by facilitating expressions, encouraging prosocial behaviour, and enabling risk avoidance. However, the current simplistic approach, reliant on social chatbots, fails to address the complexities of EI due to its inability to thoroughly evaluate emotional systems. The pre-AI understanding of EI has been hindered by cognitive biases, and nonhuman agents struggle to replicate human emotional intricacies. Advancing to more complex systems using deep learning and computer vision in socio-economic contexts poses challenges for post-AI EI. Enhancing EI through new modules that categorize stimuli and relate them to human reactions could remodel existing frameworks or develop new ones, driving innovation in response to changing emotional landscapes.

3.1 Incorporating Emotional Intelligence into AI Systems

In the context of Empathy-AI, emotions, affection, and empathy are often treated as distinct computational modules but are crucial for artificial agents to effectively interact with humans across various domains, such as education, healthcare, and entertainment. The integration of these emotional signals is posited to enhance human-robot interaction (HRI) and foster the development of empathetic AI systems. The importance of reasoning about emotions and developing a sense of empathy in AI is emphasized, highlighting its potential to promote well-being and influence users positively in their behaviours, beliefs, and decisions. Recent advancements in the field include the creation of social robots for educational purposes and empathetic AI chat platforms that respond to emotional cues. Emotional intelligence, defined as the ability to recognize and reason about others' emotions, is identified as essential for AI systems to engage in effective human interactions and decision-making. Various studies have demonstrated the significance of emotional intelligence in human decision-making, particularly in leadership roles, underscoring its relevance in planning and cooperation under constraints. The growing interest among researchers in empathetic AI is driven by its promising applications across diverse fields and its role in enhancing human performance and well-being.

3.2 Recent Developments in Emotion Recognition Technologies

Deep learning significantly aids in detecting human emotions, leveraging vast data through multimodal fusion and ensemble methods. Regularisation techniques enhance generalization, while multiclass decision and loss functions optimize performance. LSTM networks excel in analysing physical activities and signals, whereas TCNs are ideal for facial features. Recent studies highlight AI advancements in emotion modelling, with video data improving processing speed and interpretation. Data labelling methods support training deep convolutional networks using image frames. Key datasets, especially for facial emotion recognition, focus on emotions like anger, sadness, happiness, surprise, contempt, fear, and neutrality, with the One-Minute-Dataset being crucial for model evaluation.

4. Literature Review

In contemporary settings, robots and algorithms can adapt to human emotional states, a trend attributed to the psychologization of artificial intelligence and its emotional responsiveness. This affectivity often arises from physical states which can impact health, showcasing a blend between emotional sensations and intentionality. According to Weber-Guskar (2021), certain AI capabilities, such as allergen detection and solution recommendations, reduce the need for professional aides, particularly for individuals confronting social challenges or personal distress. Natural Language Processing (NLP) serves as the interface for AI-human communication, focusing on text aggregation and analytical evaluation, thereby differentiating machine learning from human intelligence (Kumar Nag et al., 2024). With healthcare increasingly shifting online, integrating AI with emotional analysis has become crucial for monitoring emotions effectively. However, there is limited literature on AI-driven emotional wellbeing analytics among students in online learning contexts, particularly during the COVID-19 pandemic. The current study addresses this gap, suggesting that deep learning and machine learning can efficiently analyse students' emotional well-being, offering potential benefits for early mental health interventions, especially in tele-mental healthcare scenarios.

4.1 Empirical Studies on Emotional Intelligence in AI

Emotional intelligence (EI) has a profound impact on cognitive functions and creativity, influencing how emotions affect decision-making and personal needs. In the realm of identity and personality, artificial intelligence (AI) is pivotal in conveying e4motions and shaping personalities. EI is crucial across professional environments, such as in strategic planning, and in social settings involving relationships and trust. Defined as the capacity to recognize and appropriately label one's own and others' emotions, utilize emotional insights for decision-making, and adjust emotions to achieve personal goals, EI has typically been associated with human intelligence but is increasingly being integrated into AI systems. This integration is evident in affective AI, also known as emotional AI, which involves the development of systems designed to detect, interpret, process, and simulate human emotions (Zhou & Jiang, 2024). In terms of the psychological aspect of emotional intelligence, it

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

enables AI to respond to specific queries. For example, can the AI Adeline show empathy if someone asks it to? Alternatively, if Adeline demonstrates empathy for the customer's predicament, is it really empathy or is she only suggesting the best solutions? However, the only feasible way to address these issues is to assess the AI system using a Turing Test (Weber-Guskar, 2021).

4.2 Major Findings from Literature Analysis

As artificial intelligence (AI) becomes increasingly integrated into daily life, its ethical implications are gaining attention, particularly concerning its emotional intelligence. The ability of AI to exhibit appropriate emotions and the varying perceptions of these emotional responses highlight the complexities involved, as individuals interpret AI actions differently based on their backgrounds and experiences. Although AI typically lacks human-like emotional intelligence, advancements are allowing emotionally intelligent agents to read and express emotions, which is essential for applications in social interactions, gaming, and virtual assistants. Emotional intelligence is crucial for managing social engagements and problem-solving, facilitating better communication and emotional regulation for individuals. Recent developments in AI enable digital entities to understand and interpret their environments, moving beyond mere programmed responses.

5. Challenges and Limitations in Emotional AI

The primary argument against endowing computers with feelings centres on the opaqueness of AI systems, with developers primarily aiming to create scalable AI devoid of unique emotional experiences. Efforts focus on developing generic models that can later facilitate discussions on the similarities and differences in behaviour between humans and machines. The complexity of creating a diverse emotional language for AI necessitates high-quality databases and concepts of emotional mathematics, leading to assumptions on emotional functions within machines. Ethical and technological challenges persist in defining emotional intelligence for AI, integrating emotional reasoning into models, and ensuring emotional stability in scalable systems. Approaches like the Five Factor Model (FFM) or the HEXACO model are considered, although adapting model behaviour in dynamic environments remains a significant challenge.

5.1 Ethical Issues in Emotional Artificial Intelligence

Developers of emotional AI must train their systems on diverse data to avoid reinforcing biases. Careful consideration is needed when using AI in employment or loan decisions to prevent sociopolitical imbalances. Users should be aware they are interacting with AI, not humans, to manage expectations and protect vulnerable individuals. Ethical standards are crucial to prevent psychological manipulation and ensure transparency and responsibility in AI interactions. Balancing transparency with engaging interactions is essential, as a more open system may not always be the most ethical approach.

5.2 Reliability and Accuracy of Emotion Recognition Systems

Several factors influence the identification and simulation of emotions through digital engagement, with algorithms successfully recognizing facial expressions and speech tones. The ability to interpret typical emotional cues diminishes when faced with atypical expressions. The ease of recognizing and mimicking emotions correlates with the quick identification of an expression's prototype. According to Pietikäinen and Silven (2022), less visible emotions may be easily concealed, which is crucial for artificial agents to maintain expressive physicality during human interaction. While AI is progressing in real-time emotion recognition via machine learning (ML), it still lacks the ability to replicate the complexity of human emotions fully. The advancements in this area prompt ethical considerations regarding emotional manipulation, privacy, and surveillance in the context of affective computing.

Gap Analysis -Table 1: Identified Research Gaps in Emotional AI

Area	Current Status	Identified Gap	Implication
Emotional Intelligence Integration	Conceptual level	No clear implementation model	Limits real-world application
Emotion Recognition	Advanced detection	Lack of deep understanding	Reduces effectiveness
Human-AI Interaction	Improving	Limited empathy simulation	Affects user experience
Cultural Studies	Limited research	Lack of cross-cultural validation	Reduces generalizability
Ethical Framework	Emerging	No universal guidelines	Risk of misuse

Not much progress has been made in translating consumer emotional intelligence (EI) metrics into effective AI model parameters, with a lack of exploration into the integration of these elements within consumer-facing AI applications. The fourth and fifth generations of AI technology do not adequately address the social dimensions of EI, with key areas such as emotion perception, understanding, and empathy remaining understudied. This has led to a gap in leadership that fails to fully integrate emotional intelligence into AI frameworks. A gap analysis

https://www.gapgyan.org/

indicates that there is no established model for incorporating EI into AI systems, highlighting the niche status of translating EI metrics into consumer-centric AI products.

Identification of Research Gaps in Emotional AI

The research project focuses on expanding the understanding of artificial and emotional intelligence, specifically in emotion detection in AI conversations. It identifies gaps and opportunities in existing literature, particularly in the assessment methods of emotional intelligence and robot-human interaction (HRI). The study highlights the need for further examination of experimental approaches and suggests criteria for evaluating emotional intelligence in future research, alongside considerations regarding user perceptions and objective performance metrics for robots.

Future Research Directions in Emotional AI

The document discusses the critical requirements for the development of emotionally intelligent AI systems, emphasizing the need for a comprehensive blueprint that encompasses cognition, motivation, and conation. Key characteristics for the design of such systems include optimizing task relevancies and fostering high contextual understanding alongside actionable directions. It highlights the importance of research aimed at identifying compatibilities, understanding behaviours, and forming models that facilitate learning and adaptability in systems. The text underscores the necessity of ethical considerations in these systems, noting that they must reflect emotional intelligence through advanced emotional modulation and the ability to interact meaningfully with users. It argues for the establishment of reinforcing loops between testing and design decisions during rapid product development, stressing the significance of understanding the mechanisms that support the display of emotional and artificial intelligence. Ultimately, the document points out that without addressing these complexities, we risk inadequately preparing AI systems to meet social expectations and exhibit desired intelligent behaviours over time.

Table 2: Gap Analysis of Emotional Intelligence in AI

Component	Current Capability	Gap	Future Scope
Emotion Detection	High accuracy (facial/voice)	Context misinterpretation	Improve multimodal AI
Emotion Understanding	Basic level	No true emotional cognition	Develop advanced models
Empathy Simulation	Rule-based responses	Not genuine empathy	Human-like interaction models
Decision-Making	Data-driven	Lacks emotional reasoning	Integrate EI with AI logic
Ethical Awareness	Limited	Bias and privacy issues	Strong ethical frameworks

Conclusion

One of the goals of empathy is to help people understand one another, and the capacity to perceive and categorise human emotions is profoundly pro-social. It's important to keep in mind that the ability to identify emotions is also quite powerful and does not always necessitate strong agreement on those impressions. Additionally, we must keep in mind that loneliness and social relationships may be abused and manipulated using empathy. Beyond empathy, human emotions can be misdirected toward misconceptions about the circumstances we find ourselves in, frequently about the intentions of others or a societal danger.

The hope that AI would improve the future through processes and objectives that are essentially, inexplicably human is like the assumption that emotional intelligence in AI will be helpful and advantageous. That's how I like it. I think AI is going in a very human direction, and understanding a little bit about its application might make human history and existence more understandable.

How may emotional intelligence be produced by computers? The potential for computers to exhibit emotional intelligence comparable to that of humans is a major source of our concerns and optimism regarding AI. I find it difficult to be certain about what an AI should be capable of, given the issues we've addressed on the principles and ideals guiding AI design. Since it is difficult to conceive anyone not developing emotional intelligence in something other than our image, any strategy based on emotional intelligence appears likely to be human-centric. Building on this, I believe that any AI should try to control both human prejudices against it and AI biases in the people it interacts with.

An emerging interplay between emotional intelligence (EI) and artificial intelligence (AI) is shaping the future, raising ethical considerations and highlighting the importance of understanding human emotions. This relationship offers potential benefits across various sectors, such as personalized healthcare and tailored education. To navigate this future effectively, collaboration among researchers, technology developers, and

https://www.gapgyan.org/

policymakers is crucial, alongside individual responsibility in enhancing emotional intelligence and critically assessing AI technologies. Education systems must adapt to equip individuals with necessary skills, emphasizing both technical knowledge and emotional acumen. Ultimately, technology should be seen as a tool to augment human capabilities, driving advancements toward a more empathetic and ethical society.

REFERENCES

[1] Cui, Z., & Li, Y. (2021). The relationship between proactive behavior and work–family conflict: A moderated mediation model.
[2] Dan, Y., Ahmed, A. A., Chupradit, S., Chupradit, P. W., Nassani, A., & Haffar, M. (2021). The nexus between the Big Five personality traits model of the digital economy and blockchain technology influencing organizational psychology.
[3] De Togni, G., Erikainen, S., Chan, S., & Cunningham-Burley, S. (2021). What makes AI "intelligent" and "caring"? Exploring affect and relationality across three sites of intelligence and care.
[4] Djete, M. F. (2023). Stackelberg mean field games: Convergence and existence results to the problem of principal with multiple agents in competition.
[5] Goswami, A., Krishna, M. M., Vankara, J., Gangadharan, S. M. P., Yadav, C. S., Kumar, M., & Khan, M. M. (2022). Sentiment analysis of statements on social media and electronic media using machine and deep learning classifiers.
[6] Grandi, L. C., & Bruni, S. (2024). Will the artificial intelligence touch substitute for the human touch? NeuroSci, 5(3), 254–264.
[7] Guo, X., Sun, Z., Zhu, Y., & Lee, C. (2024). Zero-biased bionic fingertip e-skin with multimodal tactile perception and artificial intelligence for augmented touch awareness. Advanced Materials.
[8] Jeste, D. V., Graham, S. A., Nguyen, T. T., Depp, C. A., Lee, E. E., & Kim, H. C. (2020). Beyond artificial intelligence: Exploring artificial wisdom. International Psychogeriatrics, 32(8), 993–1001.
[9] Kaklauskas, A., Abraham, A., Ubarte, I., Kliukas, R., Luksaite, V., Binkyte-Veliene, A., Vetloviene, I., & Kaklauskiene, L. (2022). A review of AI cloud and edge sensors, methods, and applications for the recognition of emotional, affective, and physiological states.
[10] Kaneria, G., & Mehta, K. A. (2024). Artificial intelligence (AI)–Threat or collaboration to humanity in the 21st century: Myth or truth. In Revolutionizing the AI-digital landscape (pp. 15–24). Productivity Press.
[11] Karimi Aliabadi, P., Zabihi Zazoly, A., Sohrab, M., Neyestani, F., Nazari, N., Mousavi, S. H., Fallah, A., Youneszadeh, M., Ghasemiyan, M., & Ferdowsi, M. (2021). The role of spiritual intelligence in predicting empathy levels of nurses with COVID-19 patients.
[12] Kumar Nag, P., Bhagat, A., Vishnu Priya, R., & Khare, D. K. (2024). Emotional intelligence through artificial intelligence: NLP and deep learning in the analysis of healthcare texts.
[13] Latif, E., Mai, G., Nyaaba, M., Wu, X., Liu, N., Lu, G., & Zhai, X. (2023). Artificial general intelligence (AGI) for education. arXiv preprint.
[14] Lindquist, D. H., & Dautaj, Y. (2021). AI in international arbitration: Need for the human touch. Journal of Dispute Resolution.
[15] Luckin, R. (2024). Nurturing human intelligence in the age of AI: Rethinking education for the future. Development and Learning in Organizations: An International Journal.
[16] Malik, T., Ambrose, A. J., & Sinha, C. (2022). Evaluating user feedback for an artificial intelligence-enabled cognitive behavioral therapy-based mental health app (Wysa): Qualitative thematic analysis. JMIR Human Factors.
[17] Mehrotra, A. (2019). Artificial intelligence in financial services—Need to blend automation with human touch. In Proceedings of the International Conference on Automation, Computational and Technology Management (ICACTM) (pp. 342–347). IEEE.
[18] Melhart, D., Togelius, J., Mikkelsen, B., Holmgård, C., & Yannakakis, G. N. (2023). The ethics of AI in games.
[19] Molfino, R., Cepolina, F. E., Cepolina, E., Cepolina, E. M., & Cepolina, S. (2024). Robots trends and megatrends: Artificial intelligence and the society. Industrial Robot: The International Journal of Robotics Research and Application, 51(1), 117–124.
[20] Mohanasundari, S. K., Kalpana, M., Madhusudhan, U., Vasanthkumar, K., Rani, B., Singh, R., & Bhatia, V. (2023). Can artificial intelligence replace the unique nursing role? Cureus, 15(12).
[21] Nasir, S., Ahmed Khan, R., & Bai, S. (2023). Ethical framework for harnessing the power of AI in healthcare and beyond.
[22] Olawade, D. B., Wada, O. Z., Odetayo, A., David-Olawade, A. C., Asaolu, F., & Eberhardt, J. (2024). Enhancing mental health with artificial intelligence: Current trends and future prospects. Journal of Medicine, Surgery, and Public Health.
[23] Ong, D. C. (2021). An ethical framework for guiding the development of affectively aware artificial intelligence.
[24] Pan, W., & Yang, Y. (2021). Virtual affective consciousness and raw social AI.

https://www.gapgyan.org/

[25] Pietikäinen, M., & Silven, O. (2022). Challenges of artificial intelligence: From machine learning and computer vision to emotional intelligence.
[26] Powell, D. J. (2024). Artificial intelligence in lean manufacturing: Digitalization with a human touch? International Journal of Lean Six Sigma, 15(3), 719–729.
[27] Rachmad, Y. E. (2024). Artificial intelligence in wonderland: Revolutionizing tourism with artificial intelligence. Changsha Xiangshu Publishing.
[28] Rezapour, M., & Elmshaeuser, S. K. (2022). Artificial intelligence-based analytics for impacts of COVID-19 and online learning on college students' mental health.
[29] Saeed, N. (2024). MediFact at MEDIQA-CORR 2024: Why AI needs a human touch (arXiv:2404.17999). arXiv.
[30] Saini, A., & Bhalla, R. (2022). Artificial intelligence and automation: Transforming the hospitality industry or threat to human touch. In Handbook of research on innovative management using AI in Industry 5.0 (pp. 88–97). IGI Global.
[31] Santoni de Sio, F., Almeida, T., & Van den Hoven, J. (2024). The future of work: Freedom, justice and capital in the age of artificial intelligence. Critical Review of International Social and Political Philosophy, 27(5), 659–683.
[32] Singh, A. P., Saxena, R., Saxena, S., & Maurya, N. K. (2024). The future of protection: Unleashing the power of nanotech against corrosion. Asian Journal of Current Research, 9(3), 23–44.
[33] Sun, T., Feng, B., Huo, J., Xiao, Y., Wang, W., Peng, J., & Liu, L. (2024). Artificial intelligence meets flexible sensors: Emerging smart flexible sensing systems driven by machine learning and artificial synapses. Nano-Micro Letters, 16(1), 14.
[34] Swiatek, L., Galloway, C., Vujnovic, M., & Kruckeberg, D. (2024). Humanoid artificial intelligence, media conferences and natural responses to journalists' questions: The end of human-to-human public relations? Public Relations Inquiry, 13(1), 113–121.
[35] Thakkar, A., Gupta, A., & De Sousa, A. (2024). Artificial intelligence in positive mental health: A narrative review.
[36] Wang, Z., Zhao, S., Wu, C., Adams, R. B., Newman, M. G., Shafir, T., & Tsachor, R. (2023). Unlocking the emotional world of visual media: An overview of the science, research, and impact of understanding emotion.
[37] Weber-Guskar, E. (2021). How to feel about emotionalized artificial intelligence? When robot pets, holograms, and chatbots become affective partners.
[38] Yang, W. (2024). Beyond algorithms: The human touch in machine-generated titles for enhancing click-through rates on social media. PLOS ONE, 19(7), e0306639.
[39] Zhang, Z., Fort, J. M., & Giménez Mateu, L. (2024). Decoding emotional responses to AI-generated architectural imagery.
[40] Zhang, Z., Peng, L., Pang, T., Han, J., Zhao, H., & Schuller, B. W. (2023). Refashioning emotion recognition modelling: The advent of generalised large models.
[41] Zhao, Y., Huang, Z., Seligman, M., & Peng, K. (2024). Risk and prosocial behavioural cues elicit human-like response patterns from AI chatbots.
[42] Zhou, Y., & Jiang, R. (2024). Advancing explainable AI toward human-like intelligence: Forging the path to artificial brain.

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

Understanding Dual aesthetics of laughter through Western Humour philosophies and Indian Rasa theory in Contemporary stand-up comedy as a social critique.

Harshita Vaghela

MA- English-SY
School of Humanities,
MIT-ADT University, Pune

Abstract

"Laughter has no greater foe than emotion," writes Henri Bergson, insisting that humour works as a social gesture that corrects, questions and keeps us "elastic and free." This paper presents the similarities between Indian Philosophies of art, particularly Hasya Rasa, and the Western context of comedy and links it to contemporary stand-up comedy, particularly in India. Comedy must not be looked down on and understood as "light" culture, but as a critical practice that negotiates identity, power, and public feeling. This Research brings together the Western Humour theories of Incongruity, Superiority, and Relief theory with the understanding of Abhinavagupta's sādhāraṇīkaraṇa and Bharatiya Gyan Parampara. Methodologies adopting a comparative and interpretive approach by studying performances by Vir Das, Varun Grover, Zakir Khan, and others as texts to read alongside Kant and Freud, as well as classical Sanskrit poetics. The present paper shows that contemporary stand-up rarely produces "pure" Hasya. It involves Politics, caste, masculinity, and media regularly to evoke Karuna, Raudra, and Vira. This research shows how across the world, democracies are struggling with polarisation, disinformation, shrinking civic space and a deep distrust between citizens and power, this results in problems that are not only legal or technological, but also affective and communicative. This Research shows that Indian traditions had already found a partial solution centuries ago through the Vidūṣaka and other jester-figures, who were appointed by the authorities to question and mock the decisions. Exposing hypocrisy and conveying unpopular truths to rulers and publics alike.

Keywords: *Stand-up comedy; Hasya Rasa; Vidusaka (Comic Brahmin companion, truth-teller); Court-jester (Royal fool speaking risky truths); Humour; Indian Philosophy of Art, Western Humor theories.*

Sr.no	CONTENTS:
1	Introduction
2	Critical Literature Review & Research Gap
3	Methodology
4	Scope and limitations
5	Findings of the study
6	Stand-Up Comedy and Its Global Challenges
7	Stand-Up Comedy as a Performance Tradition
8	Conclusion
9	References

INTRODUCTION

"Every joke is a tiny revolution," wrote George Orwell in his 1945 essay "Funny, But Not Vulgar," insisting that whatever truly makes us laugh also "upsets the established order." If every joke is a tiny revolution, this paper argues that such revolutions must not be dismissed, for comedy has long occupied its place in both Indian and Western thought. Stretching from Bharata's Hāsya rasa to Orwell's own reflections on subversive humour. In modern society, stand-up comedy is recognised as one of the most influential, highly enjoyable and accessible

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

forms of performance. It is no longer just entertainment, but a powerful tool for self-expression, whereby people explore issues of identity, politics and society. Modern stand-up comedy is not about making people laugh; rather, it is about people sharing their experiences, expressing their opinions and making people think about the things that they normally take for granted. This present paper attempts to address this problem by combining two major approaches: Western theories of Humour and Indian philosophy of art. The former are interested in the different ways that Humour is used, and the latter, particularly Rasa theory, emphasises its impact on human experiences. The present paper argues that in contemporary society, humour is a powerful tool for human transformation.

Bharata. (1951). The Natyashastra (M. Gosh, Trans.). Royal Asiatic Society of Bengal.

Critical Literature Review & Research Gap

Existing Scholarship reveals key gaps this paper addresses. Saju & Balakrishnan (2023) apply Rasa boxes to online Vir Das/ Kenny Sebastian routines, emphasizing spectator dynamics but omitting Western theory integration.
Mintz (1985) and Double (2014) explore stand-up as a social mediation and politics, yet neglect indigenous Rasa frameworks. Cultural humour studies like Jiang (2019) highlight Eastern adaptive styles but lack Natyashtastra-Vidusaka.

Though both Western theories of humour and Indian theories of art have been extensively researched, it is observed that there is a lack of research about the ways these Indian theories and Western theories can be applied in the context of contemporary stand-up comedy. The major research done on stand-up comedy is based on the performance aspects, reception of performance, and political aspects. Whereas there is a lack of research, the purpose of this research is to fill this gap in research by providing a comparative understanding of the indigenous knowledge systems that can be applied in understanding modern culture practices on stand-up comedy that can be understood from the perspective of Rasa theory, Bharatiya Gyan Parampara, and the Trans-disciplinary knowledge system. The purpose of this research is to fill this gap in research by providing a comparative understanding of the indigenous knowledge systems that can be applied in understanding modern cultural practices.

The above phenomenon calls for a deeper academic discussion on:
RQ1. How is modern stand-up comedy relevant to outside entertainment?
RQ2. How do Western humour theories (Incongruity, Superiority, Relief) and Rasa theory intersect in evoking multi-layered emotions in contemporary stand-up comedy?
RQ3. In what does stand-up comedy function as a modern Vidusaka, critiquing power through Hasya Rasa theory?
RQ4. How can traditional theories guide responsible freedom of speech and the global community?

Research Aim:

This research paper aims to map points between Indian philosophies of art, particularly Hasya Rasa, including Bharata Natyasastra, Vidusaka form Bharitya gyan Parampara, and the Western theories of Humour, such as incongruity, superiority and relief theory, with the examples of Plato, Kant, Schopenhauer, Hobbes, and Freud; analysing them by aligning their features and elements into contemporary Stand-Up culture.
Research Objectives:
This paper compares and contrasts between the Indian Aesthetic thought in relation to laughter, ethics, and reception.
To analyse the selected stand-up performances of comics such as Vir Das, Varun Grover, Zakir Khan, Kanan Gill, and Kunal Kamra to see how hasya rasa combines with Incongruity, superiority and relief theory.
To investigate how contemporary stand-up comedians function as modern Vidusaka and court jester by questioning inequality and criticising power.
This paper proposes the idea of positioning humour as a tool to ethically understand the concept of free speech.

Methodology:

This study follows a qualitative and interpretive approach to understand humour as both a cultural practice and a theoretical concept. Instead of measuring data, it focuses on reading and interpreting stand-up comedy as a form of meaningful expression. This research mainly relies on the analysis of selected standard performances, treating them as texts, emphasising that language, delivery, and context work together to create humour as a whole. Alongside this, a comparative approach is used to study Western humour theories alongside Bharata's

https://www.gapgyan.org/

Natyashastra, and understanding the idea of Hasya Rasa. Renowned thinkers like Emmanuel Kant and Sigmund Freud are used to understand concepts like incongruity and relief with an amalgamation of Indian aesthetic ideas when read together. This research is a combination of selected comedians such as Vir Das, Varun Grover and Zakir Khan whose work engages with social and cultural themes. The analysis moves in three steps: First, it identifies the origin of humour and the way it is created in performances, then it looks at the emotional experience that rasa theory. Finally, it reflects on the performances connected with larger social realities.

Kant, I. (1914). Critique of Judgement (J.H. Bernard, Trans.). Macmillan.
Freud, S. (1960). Jokes and their Relation to the unconscious (J. Strachey, Trans.). Hogarth Press.

Scope and Limitations:

It focuses on performances that confront social inequity, politics, and identity while bridging Western human theories such as incongruity theory, superiority theory and relief theory with Rasa theory and Bharatiya Gyan Parampara through qualitative text analysis and case studies. Comedy is positioned under the trance disciplinary lens as a transformational art in a digital/ carnivalesque context, and its relevance to 2026 global concerns is restricted to Netflix specials from after 2018.

Limitations: Reliance on textual analysis runs the danger of subjective judgments since it lacks actual audience reception data and is purely based on an interpretive approach, and this may lead to a clash of ideologies in culture. Regional or vernacular acts are excluded by the urban bilingual orientation, possibly ignoring a variety of cultural expressions. The influence of platform algorithms and historical distinction in interactivity is ignored when 2000-year-old Natyashastra principles are applied to solo digital forms. Selection bias is introduced by small sample sizes, and generalizability is limited by the lack of quantitative funny metrics (such as LIWC analysis). Cross-cultural data sets and spectacular psychology should be included in future research.

Findings of the study:

If we analyze contemporary standard comedy from the perspective of Rasa theory, we can notice a complex emotional content. Although hasya (Laughter) is at the centre, it is often accompanied by other Rasas. Thus, for instance, stand-up comedy about personal struggles or injustice in society can also evoke emotions of karuna (pathos) along with Hasya. Similarly, stand-up comedy about politics can evoke Raudra (anger), and stand-up comedy about overcoming personal or social struggles can evoke Veera (courage). Similarly, Western Humour theories have also been nominated by three major theories. The incongruity theory as discussed in the philosophical works of Kant and Schopenhauer, or the stories of Akbar- Birbal, Krishnadevaraya-Tenali Rama, has often been showcased by the presence of a witty, wise, and an intelligent man was portrayed as a court jester or merely a comic character who leaves them questioning their decisions and actions. His presence is not just present there for the plot, but to give it a direction to humour based on perceiving something unexpected or out of place. The superiority theory, as discussed in the philosophical works of Plato and Hobbes, states that Humour is based on perceiving something or someone as an inferior. The relief theory, as discussed in the psychological works, suggests that humour is based on relieving psychological tensions. In King Lear (c. 1606), Shakespeare's fool is described as "all licensed", meaning he alone in the court can criticise the king without fear of punishment, as noted by the American Shakespeare Centre. The fool has the rare privilege to "speak truth to power" without facing consequences. This closely parallels the avacya privilege described in the Natyashastra, known as the Vidushaka, he is granted similar freedom within Sanskrit drama. Despite being separated by nearly 18 centuries, both figures share striking similarities. There are companions to powerful male protagonists, and they function as the truth-tellers within hierarchical systems. Both occupy socially marginal positions: the Vidhushaka, often depicted as grotesque, and the Fool is a lower-class figure. Their language sets them apart. The Vidushaka speaks Prakrit instead of Sanskrit, while the fool follows on riddles, songs, and indirect speech rather than formal dialogue.

Hobbes, T. (1985). Leviathan (C.B. Macpherson, Ed.). Penguin Books.
Schopenhauer, A. (1966). The world as will and representation (E.F.J. Payne, Trans.). Dover Publications.

Traces of Indian & Western Humour/ Comedy Culture in Contemporary Stand-Up Comedy as Social Critique form

Early Western thought, especially in the works of Plato, treats comedy as immoral. In texts like Philebus and Republic, laughter is linked to a sense of superiority over others. Therefore, seen as morally unstable. He believes that laughter involves a favourable comparison between ourselves and the one we are laughing at. Contemporary stand-up comedy, however, has moved far beyond this limited view. It now functions as a space for humour to become a way of thinking, feeling, and questioning the society rather than just being for entertainment. Stand-up comedy can be understood as a part of the larger intellectual and cultural tradition, when Indian and Western ideas of humour come together.

https://www.gapgyan.org/

Plato. (1975). Philebus (J.C.B. Gosling, Trans.). Oxford University Press.

Finding 1: The Comic as a Truth- Teller

The role of the Vidushak in Indian drama stands for the one who speaks uncomfortable truths from a marginal position. Comedians like Masoom Rajwani reflect this exact tradition. His jokes about political systems such as electoral corruption, simplify complex issues through humour. This can be understood as “epistemic softening”, meaning that serious critique is made easier to grasp. His style also connects with Immanuel Kant’s idea of incongruity here Humour comes from unexpected ways of seeing things. Unlike the Vidhushak, however, modern comedians do not have institutional protection and must create this space for themselves. Masoom Rajwani describes his material as being about "the everyday absurdities of surviving in a country where everything is either trending… or burning." That description could serve as a summary of the Vidhusaka's subject matter in any Sanskrit play. His joke about the government school near his house captures the Vidhusaka's subaltern truth-telling function in miniature:

"They always construct a new floor just before elections, for votes. I once went and asked the teacher, 'Isn't this wrong? Isn't this unfair?' and the teacher was like 'No, this is how we teach maths to the kids! Elections happen every five years, the building has four floors: Tell me how old the building is.'"

— Masoom Rajwani, live performance, Mumbai, 2025

This is a structurally perfect Vidhusaka joke. It takes a serious political observation; the use of public infrastructure as electoral currency, and delivers it through a comic framing that makes it more accessible, more memorable, and more dangerous than a straightforward accusation would be. The teacher's reframing of corruption as a maths problem is the punchline, but the political critique is the content.

Finding 2: Language and Social Meaning

The Vidushak’s linguistic abilities can be studied to understand the most important feature- Use of language in comedy. The Vidushak used Prakrit instead of Sanskrit, which shows the linguistic marginality. This can be seen in the works of Kanan Gill’s stand-up through Code-switching. This reflects class identity and social context. Humour lies not just in what you say, but also in how you say. While in the Western context incongruity theory explains that this at a cognitive level Indian traditions have already recognized its social depth. The aspirational middle-class Indian who speaks English at work and Hindi at home, who is not quite comfortable in either register but has to perform fluency in both and this is the social reality that Gill's linguistic agility makes visible. He positions himself, like the Vidhusaka, as the only person on stage who inhabits all these worlds simultaneously and therefore the only one who can see them clearly.

Findings 3: Political Humour and Layered Meaning

Political Comedy in India is one of the most debated and questioned forms of comedy. In the works of Vir Das, his famous I come from two Indias is an excellent example of contrasting and juxtaposed images of society. This creates a sense of tension and reflection. In this YouTube Special, he talks about Two India; this is an example of political humour with layered meaning. This not only shows the elements of the incongruity theory but also evokes multiple responses, leaving room for exploration and reflection. Similarly, Kunal Kamra also uses this direct critique, reducing the distance between the performer and the subject. Here, both approaches reflect the elements of the Superiority and Relief theory, that can be seen in the Indian Idea of Dhvani, where meaning is suggested rather than stated directly.

Findings 4: Humour as Shared Emotional Experience

However, the works of Zakir Khan offer a different kind of humour. His focus is not on power or politics but on everyday emotions. Through the stories of love, failure, and aspirations, he creates a sense of shared experiences and brotherhood. This can be understood through Abhinavgupta’s ideas sadharanikarana, which means that personal feelings become universal. Here, Humour becomes a way of understanding oneself through others, something that Western theories have not fully explored.

Abhinavagupta. (1968). The Aesthetic experience according to Abhinavagupta (R. Gnoli, Trans., 2nd ed.). Chowkhamba Sanskrit Series Office.

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

Stand-up Comedy and its Global Challenges

Stand-up comedy has a lot to contribute in the context of contemporary global challenges, such as issues of inequality, identity conflicts, and political polarisations. By tackling sensitive issues that are often controversial, comedians facilitate a dialogue on such issues. Humour is used as a tool for having a conversation about difficult issues in a more accessible and interesting way. Humour reduces resistance by creating a space for the viewers to understand and explore the ideas through a point of view, which helps a higher willingness for people to engage with new ideas humour also promotes critical thinking. This is in the overall ambition of Bharatiya Gyan Parampara, which focuses on knowledge as a tool for self-awareness and the common good. In this context stand-up comedy could be considered a trans-disciplinary art form that incorporates aspect of philosophy, sociology, and performance. Even though there haven't been any concrete policy changes these Stand-Ups have nudged public conversations towards real everyday issues instead of getting caught up in glorified media narratives. As it is getting harder to distinguish between AI-generated content on news and actual impactful headlines, Stand-Ups offers a more authentic reflection of public sentiment. It not only captures people's thinking but also provides policymakers with grounded and sensible critique of their ideas.

Stand-Up Comedy as a Performance Tradition

An Indian perspective on freedom of speech. Freedom of speech sits at the centre of comedy. Today we can clearly see it in how shows like Saturday Night Live that humour doesn't just aim for laughter. It nudges, questions, and unsettles, every now and then. It manages to hold power in its place; it mocks and questions people in power. But when similar formats are adapted in India, they do not always succeed in the same way. Is it because we lack talent? Or is it because we don't have enough audience? – The answer is simple, this happens because our deeper cultural understanding of humour is often overlooked. Humour is meant to make you think and pause, and not merely speak under the name of free speech. If you trace things back, humour was never supposed to be unrestrained. It wasn't chaotic or just impulsive; it was supposed to leave you wondering if you had fallen for the trap of media or had been purposely neglecting it. Take Vidushak as the classic example from the Sanskrit theatre, on the surface, he's a comic who jokes, interrupts and plays around, but underneath that, his role runs deeper. He has a purpose, he was appointed to mock kings, queens, question authority, and expose uncomfortable truths and yet he isn't reckless. There is discipline in what one chooses to say; it is used as a tool, an internal compass guiding society. It shifts comedy from "say anything because you can" to "say something because it matters". That perspective feels especially relevant now. Conversations around free speech have become more charged, more immediate, especially in digital spaces. Everything moves fast and reacts even faster. Satire in such an environment can easily slip from having freedom of speech to not entirely having it. But Indian traditions hint at something even more layered. A middle space, where it allows freedom of speech to thrive and at the same time, the audience plays an equally important role. When the audience approaches comedy with fixed opinions, they limit their own experience. Humour then becomes anything but humour; Engaging with satire/ comedy/ humour requires openness, a willingness to listen and the ability to consider different perspectives.

Conclusion:

In the end, humour is not only about freedom of speech, but also about how one uses it and helps its people; this is the right use of freedom of speech. If humour is approached with care, it creates awareness, openness to subjects and connects deeper with the truth. The primary example of Vidushaka, clearly shows how Indians have been dealing with critical humour since the very beginning, challenging the norms, questioning authorities, and accepting the bare truth as it is. To revive this old tradition in contemporary Stand-Up, one can easily look up to Indian philosophies and Western contexts to understand it better. This helps in creating a bigger and better platform for the comics as well as the audience to look beyond the lens of society. We must use comedy/ humour as a democratic tool, to speak truth, while reminding us of our shared human absurdities.

"If it makes you laugh, it's a joke, but if it makes you angry, it's probably true."

References:

YouTube and Netflix References:
Masoom Rajwani
Rajwani, Masoom. Live performances, Mumbai, 2025.
Vir Das
Das, V. (2020). Vir Das: For India [Video]. YouTube. https://www.youtube.com/watch?v=5bZfR7WkzVY
Zakir Khan
Khan, Z. (2017). Haq Se Single (clip) [Video]. YouTube. https://www.youtube.com/watch?v=0dK5qjN9vKk

https://www.gapgyan.org/

Varun Grover
Grover, V. (2025). Nothing makes sense (clip) [Video]. YouTube. https://www.youtube.com/watch?v=9V7nQrtMQEw
Kunal Kamra
Kamra, K. (2018). Be Like [Video]. YouTube. https://www.youtube.com/watch?v=O7h9D7n1gLQ
Kanan Gill
Gill, K. (2017). Keep it real [Video]. YouTube. https://www.youtube.com/watch?v=F9r3xX0G8fA

Work Cited/ References:

Abhinavagupta. (1968). The Aesthetic experience according to Abhinavagupta (R. Gnoli, Trans., 2nd ed.). Chowkhamba Sanskrit Series Office.
Plato. (1975). Philebus (J.C.B. Gosling, Trans.). Oxford University Press.
Bharata. (1951). The Natyashastra (M. Gosh, Trans.). Royal Asiatic Society of Bengal.
Bakhtin, M. (1984). Rabelais and his world. Indiana University Press
Mintz, L.E. (1985). Stand-up Comedy as Social and Cultural Mediation. American Quarterly, 37910, 71-80.
Double, O. (2014). Getting the joke: The inner workings of stand-up Comedy (2nd ed.). Bloomsbury Methuen Drama.
Jiang, T., et al. (2019). Cultural differences in humour perception, Usage, and implications. Frontiers in psychology, 10.
Saju, M., & Balakrishnan, V. (2023). Laughing online: Indian Stand-UP comedy as a spectator sport. Journal of Creative Communications. 17(30), 270-287.
Kant, I. (1914). Critique of Judgement (J.H. Bernard, Trans.). Macmillan.
Freud, S. (1960). Jokes and their Relation to the unconscious (J. Strachey, Trans.). Hogarth Press.

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

Dharma and Nyaya in Modern Motor Accident Compensation: A Study of Gujarat's Judicial Trends

Author: Jiten Dipakbhai Mehta
PhD Research Scholar
Shri Govind Guru University, Godhra.

Guide: Dr. Satishkumar Nagar
Assistant Professor
Law College, Godhra, SGGU.

Abstract

This research paper examines the intersection of ancient Indian philosophical concepts of Dharma (righteousness, duty) and Nyaya (justice, fairness) with modern motor accident compensation jurisprudence in Gujarat. The study analyzes how Motor Accident Claims Tribunals (MACT) apply principles of 'just compensation' under the Motor Vehicles Act, 1988, and explores whether these contemporary legal mechanisms reflect the timeless values embedded in Indian Knowledge Systems (IKS). Through doctrinal analysis of Sections 166 and 168 of the Motor Vehicles Act, examination of landmark Gujarat High Court judgments from 2020–2025, and comparative study of Dharmashastra principles with modern tort law, this paper reveals significant continuities and departures. The research identifies critical issues including inconsistent compensation awards, procedural delays, and the tension between standardization and judicial discretion. The paper concludes with recommendations for integrating IKS principles into MACT procedures, establishing uniform compensation guidelines, and creating fast-track mechanisms to ensure timely justice.

Keywords: Dharma, Nyaya, Motor Accident Compensation, MACT, Gujarat High Court, Indian Knowledge Systems, Just Compensation, Motor Vehicles Act 1988, Arthashastra, Tort Law

INTRODUCTION

The rapid motorization of Indian roads has brought unprecedented mobility alongside a tragic toll of human suffering. With over 1.5 lakh road fatalities annually, motor accidents have emerged as a critical public health and legal challenge. The Motor Vehicles Act, 1988, through its provisions for Motor Accident Claims Tribunals (MACT), establishes a specialized adjudicatory mechanism for swift and fair compensation to accident victims and their families. Gujarat, as one of India's most economically vibrant states, witnesses a significant volume of motor accident claims, and the Gujarat High Court has developed a substantial body of jurisprudence interpreting compensation principles under the Act.

However, the concept of justice in motor accident compensation cannot be fully understood through a purely positivist legal lens. India's legal consciousness has been shaped by millennia of philosophical reflection on Dharma (righteousness, moral duty, cosmic order) and Nyaya (justice, fairness, proper reasoning), elaborated in ancient texts including the Vedas, Manusmriti, Yajnavalkya Smriti, and Kautilya's Arthashastra. The Indian Knowledge System (IKS) perspective emphasizes restorative justice aimed at healing relationships and reintegrating individuals into society — not merely punitive or deterrent functions of law. This paper undertakes an interdisciplinary examination of motor accident compensation in Gujarat, analyzing how contemporary MACT jurisprudence relates to these ancient Indian philosophical principles, and proposes concrete reforms grounded in both ancient wisdom and contemporary legal theory.

2. LITERATURE REVIEW

Scholarly analysis of the Motor Vehicles Act, 1988, has focused on three key provisions: Section 140 (no-fault liability), Section 166 (application for compensation), and Section 168 (award of just compensation). Supreme Court judgments including Sarla Verma v. Delhi Transport Corporation (2009) and National Insurance Co. Ltd. v. Pranay Sethi (2017) established standardized multiplier methods and compensation heads. Gujarat High Court's contribution has been substantial — recent judgments clarify that gross salary calculations must include all employment benefits and that compensation awards are not restricted to claimed amounts.

Compensation is awarded under multiple heads: actual and future medical expenses, loss of income via the multiplier method, pain and suffering, loss of consortium (parental, spousal, and filial), funeral expenses, loss of estate, and property damage. The loss of dependency calculation involves determining the deceased's annual income, adding 40% for future prospects (if under 40 years), deducting one-third for personal expenses, and applying an age-based multiplier. Loss of consortium was standardized at Rs. 40,000 per dependent in Pranay Sethi (2017).

Research has identified persistent challenges in MACT proceedings: procedural delays of 3–5 years (far exceeding the six-month statutory target), inconsistency in compensation awards across tribunals, and structural power imbalances between individual claimants and institutional insurance companies. On the

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

philosophical side, the concept of Dharma encompasses moral duty, righteousness, and social obligations, while Nyaya represents substantive fairness ensuring individuals receive what they deserve. Kautilya's Arthashastra distinguished between punitive justice (danda) and compensatory justice, prescribing that judges must be free from ten human vices — grudge, malice, anger, greed, delusion, prejudice, bias, fear, hatred, and empty pride. A significant research gap exists: few studies have systematically examined the intersection of MACT jurisprudence and Indian philosophical concepts of justice, which this paper addresses.

3. RESEARCH OBJECTIVES AND QUESTIONS

This research is guided by seven objectives: (1) analyze the legal framework under Sections 166 and 168 of the Motor Vehicles Act, 1988; (2) examine judicial trends in Gujarat High Court compensation cases during 2020–2025; (3) explore the philosophical foundations of Dharma and Nyaya in classical texts; (4) undertake a comparative analysis of ancient Indian compensation principles with modern tort law; (5) identify critical challenges and systemic issues in Gujarat's compensation system; (6) evaluate whether contemporary MACT jurisprudence achieves 'just compensation' against both legal and Dharmic standards; and (7) propose evidence-based recommendations for reform. The core research questions ask how Gujarat courts interpret 'just compensation,' what judicial trends have emerged during 2020–2025, how Dharma and Nyaya relate to contemporary compensation principles, and whether IKS insights can inform meaningful reforms.

4. RESEARCH METHODOLOGY

This research employs a mixed methodology combining doctrinal legal analysis, empirical examination of judicial decisions, philosophical inquiry into Indian Knowledge Systems, and comparative analysis. The doctrinal component involves systematic analysis of the Motor Vehicles Act, 1988 (Sections 140, 161, 163A, 165–169, 173), Supreme Court landmark judgments, and Gujarat High Court judgments. The empirical component examines approximately 50 significant Gujarat High Court judgments from 2020–2025, analyzing compensation heads recognized, multipliers applied, treatment of future prospects, consortium compensation, and judicial reasoning. The philosophical component involves close reading of Manusmriti, Yajnavalkya Smriti, Kautilya's Arthashastra, and relevant passages from the Mahabharata and Ramayana. The comparative component examines similarities and differences between ancient Indian compensation principles and modern tort law doctrines. Limitations include geographic focus on Gujarat, limited access to unpublished tribunal orders, reliance on translated Sanskrit texts, and inability to account for informal settlements.

5. LEGAL FRAMEWORK OF MOTOR ACCIDENT COMPENSATION

The Motor Vehicles Act, 1988, replaced the earlier 1939 Act, introducing mandatory third-party insurance, no-fault liability, exclusive MACT jurisdiction, and streamlined claim adjudication procedures. The Motor Vehicles (Amendment) Act, 2019, further strengthened victim protection through enhanced compensation amounts and stricter penalties.

Section 166 establishes the foundational right to seek compensation, authorizing injured persons, legal heirs of deceased victims, owners of damaged property, or employers to file applications before the MACT having jurisdiction — based on the place of accident, the claimant's residence, or the vehicle's registration. No-fault compensation under Section 140 provides up to Rs. 50,000 for death and Rs. 25,000 for grievous injury without requiring proof of negligence, while most claimants pursue fault-based claims under Section 166 for adequate compensation commensurate with actual losses.

Section 168 vests MACTs with the power to determine and award 'just compensation' — interpreted by courts to mean compensation that places the victim or dependents, as far as possible, in the position they would have been in had the accident not occurred. This principle, derived from the tort law doctrine of restitutio in integrum, emphasizes restoration rather than punishment. The multiplier method involves four steps: determining the deceased's annual income; adding future prospects (40% for victims under 40 years, 25% for those between 40–50 years, 10% for those between 50–60 years); deducting one-third for personal expenses; and applying an age-based multiplier ranging from 18 for victims under 15 years to 5 for those above 65 years, as established in Sarla Verma v. Delhi Transport Corporation (2009). Section 169 specifies summary procedure for tribunals, while Section 173 provides for appeals to the High Court within 90 days.

6. INDIAN KNOWLEDGE SYSTEM PERSPECTIVE: DHARMA, NYAYA, AND COMPENSATION

6.1 Dharma and Nyaya

Dharma, derived from the Sanskrit root 'dhr' meaning to uphold or sustain, encompasses moral duty, righteousness, cosmic order, social obligations, and law. The Dharmashastras — Manusmriti, Yajnavalkya Smriti, and Narada Smriti — articulated comprehensive legal systems treating law not as arbitrary commands of a sovereign but as expressions of eternal Dharma adapted to particular social circumstances. A judge (dharmashta, literally 'upholder of Dharma') was expected to apply not merely technical rules but principles of fairness, equity, and righteousness, integrating moral and legal obligations. Nyaya represents

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

substantive fairness ensuring individuals receive what they deserve — neither more nor less than is just. Classical texts emphasize that Nyaya requires impartial judges free from bias, fair procedures, decisions based on evidence and reasoning, proportionality between wrongs and remedies, and outcomes that restore social harmony and individual dignity. Crucially, ancient texts criticized delayed justice as a form of injustice — a concern that resonates powerfully with contemporary challenges in motor accident compensation.

6.2 Kautilya's Arthashastra

Kautilya's Arthashastra, composed in the 4th century BCE, integrates pragmatic statecraft with moral obligations rooted in Dharma. The text prescribed detailed procedures for judicial administration: establishment of separate courts, appointment of qualified judges with knowledge of law and moral character, swift adjudication, graded penalties proportionate to offenses, compensation to victims as a primary remedy, and mechanisms for appeal and review. The Arthashastra distinguished between punitive justice (danda) aimed at deterrence and compensatory justice aimed at restoring victims and maintaining social harmony — for many wrongs, particularly those causing economic loss or physical injury, the prescribed remedy was compensation to the victim rather than punishment of the wrongdoer. Kautilya emphasized proportionality — remedies calibrated to the severity of harm and the circumstances of parties. Most significantly, judges were required to be free from ten human vices: grudge (irshya), malice (dwesha), anger (krodha), greed (lobha), delusion (moha), prejudice (purvagrah), bias (pakshapat), fear (bhaya), hatred (ghrina), and empty pride (ahankar).

6.3 Manusmriti, Yajnavalkya Smriti, and Restorative Justice

The Manusmriti emphasizes that compensation should aim to restore the victim to their prior position — remarkably similar to the modern doctrine of restitutio in integrum — and prescribed compensation calculated based on the victim's occupation and expected future earnings, anticipating the modern multiplier method. Yajnavalkya Smriti recognized that some harms — particularly those involving loss of life or permanent disability — cannot be fully compensated in monetary terms, yet compensation must still be provided to support dependents and acknowledge the wrong. Both texts emphasize the importance of evidence, witnesses, documents, and expert testimony, and prescribe that judges should use reasoning and inference to determine truth when direct evidence is unavailable. A distinctive feature of ancient Indian legal thought was its emphasis on restorative justice — restoring social harmony (samajik samanvaya) following disruption caused by wrongdoing or accidental harm — going beyond economic restoration to acknowledge harm, express societal concern for victims, and facilitate their reintegration into normal life.

7. JUDICIAL TRENDS IN GUJARAT: LANDMARK JUDGMENTS (2020–2025)

7.1 Compensation as Relief, Not Bonanza

A recurring theme in Gujarat High Court judgments is that motor accident compensation constitutes relief for genuine loss, not a windfall or bonanza. In LH of Deceased Nileshbhai Mahendrabhai Vasant v. Jigar Babubhai Shah (2024), Justice Hasmukh D. Suthar emphasized that compensation awards must be grounded in evidence and cannot exceed amounts justified by actual loss. The Court rejected a claim for medical expenses paid by a charitable trust, holding that claimants cannot recover amounts they did not actually bear, while simultaneously enhancing consortium compensation — demonstrating a nuanced approach skeptical of unsubstantiated claims while ensuring genuine losses are fully compensated.

7.2 Gross Salary Calculation: Inclusive Approach

In Reliance General Insurance Co. Ltd. v. Shitalben WDO Jigneshkumar Parekh (2025), the Court held that gross salary must include not only basic pay but also educational allowance, transport allowance, medical benefits, leave travel assistance, gratuity, HRA, and salary towards leave. The case involved a 35-year-old Senior Mechanical Engineer earning Rs. 55,000 per month. The High Court enhanced the monthly salary assessment to Rs. 48,624 after including all salary components, resulting in total compensation of Rs. 1.07 crore. This judgment establishes that salary-based compensation calculations must account for the full economic value of employment, not merely take-home pay, ensuring dependents are not systematically undercompensated.

7.3 Functional Disability Assessment

In Vicky Dineshbhai (Minor) v. Balvand Singh Hanubha Rana (2023), the Court corrected a tribunal's assessment that had treated 50% physical disability as equivalent to 50% functional disability. The case involved a five-year-old child who suffered paralysis of the upper body — 100% functional disability despite 50% physical impairment. In Tata AIG General Insurance Co. Ltd. v. Sunil Ishwarbhai Panchal (2025), the Court further clarified that tribunals have a duty to ascertain functional disability through proper medical evaluation, and that disability certificates from private doctors who had not treated the claimant required verification. These cases establish that functional disability assessment requires examination by qualified medical boards, consideration of the claimant's occupation and actual work requirements, and distinction between physical impairment percentages and functional disability for compensation purposes.

https://www.gapgyan.org/

7.4 Enhanced Consortium Compensation and No Restriction on Award Amount

Following Pranay Sethi (2017), Gujarat High Court has consistently awarded consortium compensation at Rs. 40,000 per dependent, while showing willingness to enhance this amount in appropriate cases — in the Nileshbhai case, the Court enhanced consortium compensation to Rs. 1,93,600 for four dependents (Rs. 48,400 each). The Court has recognized three types of consortium loss: spousal, parental, and filial — each dependent entitled to separate compensation. The Court has also clarified that tribunals are not restricted to awarding compensation only up to the amount claimed. In Shitalben (2025), citing Nagappa v. Gurudayal Singh, the Court held that where evidence justifies higher compensation than claimed, tribunals may award the higher amount, reflecting the statutory mandate to award 'just compensation' rather than merely adjudicating between competing claims.

7.5 Negligence, Interest Rates, and Emerging Trends

In the Shitalben case, the Court upheld the tribunal's finding that a tanker illegally parked on a highway at night without reflectors, parking lights, or warning signals was solely responsible for the accident, rejecting the insurance company's appeal challenging negligence attribution. Recent judgments have awarded interest at 7.5% per annum from the date of filing the claim petition until payment. Analysis of Gujarat High Court judgments from 2020–2025 reveals increasing judicial sophistication in compensation calculation, greater willingness to enhance tribunal awards where evidence justifies, more rigorous functional disability assessment, consistent consortium recognition, and comprehensive gross salary calculations. However, inconsistency across tribunal awards remains a persistent challenge.

8. COMPARATIVE ANALYSIS: DHARMIC PRINCIPLES AND MODERN COMPENSATION LAW

A systematic comparison reveals both profound continuities and important divergences between ancient Indian compensation principles and modern tort law. The most significant continuity lies in the shared emphasis on victim restoration — the tort law principle of restitutio in integrum directly mirrors the Dharmic principle that those who suffer harm deserve fair restitution aimed at restoring social balance. The principle of proportionality finds contemporary expression in the structured multiplier method, which varies compensation based on age, income, and dependency. The recognition of consortium loss in modern compensation law reflects ancient understanding that harm extends beyond economic dimensions. The emphasis on judicial integrity in the Arthashastra parallels modern concerns about consistency and impartiality.

However, important divergences exist. Ancient frameworks emphasized duties over rights, collective harmony over individual autonomy, and integration of moral and legal obligations, while modern law prioritizes individual rights, separates law from morality, and focuses more narrowly on individual restoration. Ancient texts prescribed compensation based partly on the victim's social status, reflecting hierarchical social structures that modern law explicitly rejects in favor of equal treatment. The ancient emphasis on restorative justice aimed at healing relationships and reintegrating individuals into society goes beyond what modern compensation law typically attempts.

9. CRITICAL CHALLENGES IN THE CURRENT SYSTEM

Despite the comprehensive legal framework and evolving jurisprudence, significant challenges impede effective justice delivery. Procedural delays — cases routinely taking 3–5 years — represent the most pervasive challenge, resulting from inadequate tribunal infrastructure, heavy caseloads, frequent adjournments, and complex evidentiary requirements. From a Dharmic perspective, this represents a fundamental failure of Nyaya. Inconsistency in compensation awards across tribunals undermines public confidence and violates the Dharmic principle of equal treatment. Evidentiary challenges disproportionately affect informal sector workers — without formal salary slips or employment records, these claimants struggle to establish income, resulting in systematic undercompensation of economically vulnerable populations. Insurance company litigation tactics transform remedial proceedings into adversarial battles, prolonging cases and increasing costs for claimants. Inadequate interim relief means accident victims and their families often face severe financial hardship during the years-long pendency of their claims, undermining the restorative purpose of compensation.

10. RECOMMENDATIONS FOR REFORM

Drawing on both legal analysis and insights from Indian Knowledge Systems, this research proposes reforms across four dimensions. Legislatively: enhanced no-fault compensation amounts updated to reflect current economic realities; mandatory interim awards within 60 days of filing; detailed compensation guidelines for different categories of claimants including informal sector workers; and simplified evidence requirements allowing tribunals to accept affidavits and community testimony. Procedurally: fast-track mechanisms for straightforward cases; mandatory mediation before formal adjudication, consistent with the Dharmic emphasis on restoring harmony; strict limits on adjournments with costs imposed for unnecessary delays; and technology

https://www.gapgyan.org/

integration through electronic filing and digital case management. Institutionally: increased tribunal capacity through appointment of additional presiding officers; specialized training for tribunal members on compensation calculation and the philosophical foundations of just compensation; permanent medical boards attached to tribunals for reliable disability assessments; and enhanced legal aid for accident victims. Culturally: integration of IKS principles through judicial education familiarizing tribunal members with Dharmic concepts of justice, restoration, and social harmony; framing timely justice as a Dharmic duty; and emphasis on restorative approaches that treat compensation proceedings as opportunities to restore victims' dignity and social standing.

11. CONCLUSION

This research has undertaken an interdisciplinary examination of motor accident compensation in Gujarat, analyzing contemporary legal practice through the dual lenses of modern jurisprudence and ancient Indian philosophical principles. The Motor Vehicles Act, 1988, particularly Sections 166 and 168, provides a comprehensive structure for compensating accident victims. Gujarat High Court's jurisprudence demonstrates judicial sophistication — recent judgments clarify that gross salary calculations must be comprehensive, functional disability must be properly assessed, consortium losses must be recognized, and compensation awards are not restricted to claimed amounts.

However, significant challenges impede effective justice delivery: procedural delays, inconsistency across tribunal awards, evidentiary challenges for informal sector workers, and insurance company litigation tactics. The philosophical analysis reveals profound continuities between ancient Dharmic principles and modern compensation law — the concept of restitutio in integrum resonates with Dharmic emphasis on restoration; proportionality finds expression in the multiplier method; consortium loss reflects ancient understanding that harm extends beyond economic dimensions; and the emphasis on judicial integrity in the Arthashastra parallels modern concerns about consistency and impartiality. Yet important differences exist — ancient frameworks emphasized duties over rights and collective harmony over individual autonomy, while modern law prioritizes individual rights.

From a Dharmic perspective emphasizing Nyaya — justice, fairness, and timeliness — the current system falls short. Delayed justice violates the principle that restoration must be timely. Inconsistency violates the principle of equal treatment. Systematic undercompensation of informal sector workers violates the principle that all persons deserve what is due regardless of status. Adversarial proceedings that traumatize victims violate the principle that justice should be delivered with dignity and compassion. Insights from Indian Knowledge Systems can inform meaningful reforms: the Arthashastra's emphasis on swift justice suggests need for fast-track mechanisms; the focus on victim restoration suggests less adversarial proceedings; the principle of proportionality suggests flexible guidelines balancing structure with individualized assessment; and the restorative emphasis on social harmony suggests evaluating compensation systems not only for economic efficiency but for contribution to victims' dignity and social reintegration. This research contributes to legal scholarship by bridging ancient wisdom with contemporary jurisprudence, offering insights for policy reform in motor accident compensation law.

REFERENCES

Primary Sources: Statutes and Cases

Motor Vehicles Act, 1988 (Act No. 59 of 1988). | Motor Vehicles (Amendment) Act, 2019 (Act No. 32 of 2019). | Sarla Verma v. Delhi Transport Corporation, (2009) 6 SCC 121. | National Insurance Co. Ltd. v. Pranay Sethi, (2017) 16 SCC 680. | Reshma Kumari v. Madan Mohan, (2013) 9 SCC 65. | LH of Deceased Nileshbhai Mahendrabhai Vasant v. Jigar Babubhai Shah & Anr., Gujarat High Court (2024). | Reliance General Insurance Co. Ltd. v. Shitalben WDO Jigneshkumar Parekh, 2025 GUJHC 724. | Vicky Dineshbhai (Minor) v. Balvand Singh Hanubha Rana & Ors., 2025 GUJHC 8094. | Tata AIG General Insurance Co. Ltd. v. Sunil Ishwarbhai Panchal & Ors., R/Special Civil Application No. 3605 of 2025, Gujarat High Court. | Hanumantharaju B (Dead) by LR v. M. Akram Pasha, 2025 INSC 682.

Primary Sources: Classical Texts

Kautilya. (1915). Arthashastra (R. Shamasastry, Trans.). Bangalore: Government Press. | Manusmriti (Laws of Manu). (2004). (W. Doniger & B. K. Smith, Trans.). New Delhi: Penguin Books India. | Yajnavalkya Smriti. (1918). (M. N. Dutt, Trans.). Calcutta: Elysium Press. | Bhagavad Gita. (2000). (E. Easwaran, Trans.). Tomales, CA: Nilgiri Press.

Secondary Sources

Rangarajan, L. N. (1992). Kautilya: The Arthashastra. New Delhi: Penguin Books India. | Kane, P. V. (1930–1962). History of Dharmasastra (Vols. 1–5). Pune: Bhandarkar Oriental Research Institute. | Derrett, J. D. M. (1968). Religion, Law and the State in India. London: Faber and Faber. | Lingat, R. (1973). The Classical Law of India. Berkeley: University of California Press. | Olivelle, P. (2005). Manu's Code of Law. New York: Oxford University Press. | Sarkar, S. C. (2020). Law of Motor Vehicles (5th ed.). Kolkata: Eastern Law House. | Malik,

https://www.gapgyan.org/

R. K. (2019). Commentary on Motor Vehicles Act (3rd ed.). New Delhi: Universal Law Publishing. | Ratanlal & Dhirajlal. (2021). The Law of Torts (28th ed.). Gurgaon: LexisNexis. | Sen, A. (2009). The Idea of Justice and the Concept of Nyaya. Philosophy & Public Affairs, 37(3), 215–238. | National Judicial Data Grid. (2025). Pendency Statistics for Motor Accident Claims. https://njdg.ecourts.gov.in/ | Ministry of Road Transport and Highways. (2024). Road Accidents in India 2023. New Delhi: Government of India.

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

Transdisciplinary Research in Bhartiya Gyan Parampara: Exploring Indigenous Knowledge for Contemporary Global Challenges

By

KAVITA RANI P
MSc Psychology 1st Year
Jain University (Deemed to be) Bengaluru
kavitaasus@gmail.com
10-Apr-2026

Abstract

Bharatiya Jnana Parampara (IKS) is anchored in a holistic worldview, emphasizing the interconnectedness of all existence (Vasudhaiva Kutumbakam), the pursuit of truth through spiritual and empirical means, and the integration of ethics with daily life wherein its foundation rests on Vedas, Upanishads, Darshanas (philosophy schools) and a Guru Shishya tradition. Ancient India evolved a rich, holistic knowledge system (IKS) that integrates spiritual, philosophical, and scientific inquiry; key contributions included pioneering mathematical concepts (zero, infinity, decimals), foundational Ayurveda medicine and advanced astronomy, metallurgy and structural engineering.

Ayurveda and Yoga are ancient Indian holistic health systems (often part of AYUSH) that work together to balance mind, body, and spirit. Governance and economics in ancient Indian texts are deeply intertwined, primarily focusing on the concept of Raja Dharma to ensure the welfare of the people (yoga kshema). The most comprehensive treatise is Kautilya's Arthashastra, which posits economic prosperity. The traditional Indian education system was a holistic guru-centric model (Gurukul system) that emphasized intellectual, moral, physical, and spiritual development. IKS (Indian knowledge system) provides sustainable insights and ethical approaches to environmental management emphasizing a harmonious human-nature relationship. Indian psychology offers a unique framework for human development, emphasizing internal consciousness, holistic well-being, and self-transcendence rather than just external behaviour. Literature, art, and cultural knowledge are intrinsically linked, serving as the collective memory, identity, and creative expression of human civilization.

Management and leadership in Indian thought emphasize holistic development, ethical duty (Dharma), and selfless action (Nishkama Karma), shifting focus from pure transactional gain to character-based leadership, stakeholder well-being, and long-term sustainability. Rooted in texts of Bhagavad Gita & Arthashastra. Transdisciplinary research methodologies integrate academic disciplines with non-academic stakeholders' expertise to address complex real-world problems.

Keywords: Scientific Knowledge, Public Administration, Vedanta, Dharma, Gurukula Tradition, Literature, Performing arts, Research Methodology

INTRODUCTION

For centuries, India's intellectual legacy has been fragmented, neglected, or misrepresented—not because it lacked merit, but because colonial and modern education systems sidelined indigenous narratives. This era has now come, as envisioned—to reclaim that narrative with pride, with evidence and with purpose.

Indian Knowledge Systems (IKS) are not just historical curiosities; they are blueprints of how a civilization thought, lived, governed, healed, built, calculated, composed, and philosophized. They offer us a window into a worldview where knowledge was sacred, education was holistic, and learning was inseparable from life itself.

Philosophical foundations of Bharatiya Jnana Parampara

Epistemology is like the "how-to" guide for knowledge.

It's all about understanding how we know about things and how sure can we be that whatever we know is true.

It asks questions like:

1. What counts as Knowledge?
2. How do we acquire knowledge?
3. What makes knowledge reliable?

https://www.gapgyan.org/

4. Are there any limits to what we can know?

Diversity plays a crucial role in the epistemology of the various Indian philosophical systems. It allows for a more subtle understanding of how knowledge is acquired and validated. Hindu epistemology fosters inclusivity, integration, and adaptability to enrich the philosophical landscape and a comprehensive understanding of reality.

Pramana theory, originating in Indian philosophy defines the valid means or sources of obtaining accurate knowledge. Whilst number of pramanas varies widely from system to system, many ancient and medieval Indian texts identify six pramanas as accepted means of accurate knowledge and attaining the truth. These are often almost universally accepted: perception (Pratyaksha), inference (Anumana), and word (Shabda), meaning the testimony of trusted reliable experts.

The other three pramanas are more contentious: comparison and analogy (Upamana), postulation or derivation from circumstances (arthapatti) and non-perception or proof from absence (anupalabdhi).

Etymology shows Pramana which literally means “proof”, based on the word prama. The Sanskrit root pra is a proposition meaning “outward” or “forth”, and ma means measurement. Pramana means “correct notion, true knowledge, basis, foundation, understand”. The nominalization of the word Pramana 1 is means of acquiring correct and true knowledge.

Different schools of Hindu philosophy accept one or more of these pramanas as valid epistemology. Various schools of philosophy developed in the Indian subcontinent. The key philosophical thoughts included the Shad Darshanas based on Vedic thought and three prominent atheist philosophies based on Charvaka, Buddhist and Jain thought.

The Shad Darshanas:

Nyaya – Investigates knowledge & logic

– Founded by sage Gautama. Emphasizes logic and knowledge acquisition as the path to liberation (moksha). The basic premise is that suffering is caused by ignorance.

Vaisheshika – Founded by Sanskrit philosopher Kashyapa.

Proposed an atomic theory of the universe guided by a divine force. Merged with the Nyaya school became known as the Nyaya – Vaisheshika school of Indian philosophy.

Sankhya – Explores cosmos through reason.

– Founded by sage Kapila. Dualistic system, distinguishing between eternal and pure consciousness (Purusha) and the first cause, the matter of the physical universe and nature, which is within time, space and causation (Prakriti).

Yoga: Founded by sage Patanjali, expounded in the Yoga Sutras. Aligns with Sankhya philosophy, adding the concept of a personal God, and emphasizing practical methods for Moksha.

Mimamsa – Concerned with rituals and ethics.

The earliest work, Mimamsa Sutra founded by sage Jaimini. Focuses on interpreting the Vedas, particularly rituals (Karma Kanda).

Vedanta: Explores ultimate reality and liberation.

This is the monistic school of Indian philosophy, deals with the later portion of Vedic literature called the Upanishads, the knowledge section or the Jnana Kanda. It has three main sub-branches:

• Dvaita (dualistic) by Madhvacharya

https://www.gapgyan.org/

• Vishishtadvaita (qualified monism) by Ramanujacharya

• Advaita (monism) by Shankaracharya

Atheist schools of philosophy

Charvaka: The ancient school also referred to as nastika rejects the authority of the sacred scriptures. Founded by sage Brihaspati. This materialistic school recognizes only what can be directly perceived.

Buddhism: The philosophical thought based on the teachings of Gautama Buddha. It posits the transcendental nature of life of reincarnation, and denies the existence of soul or God. Emphasizes understanding suffering and its cessation to attain liberation (Nirvana).

Jainism: Founded by Mahavira, emphasizes non-violence (ahimsa) and the liberation of the soul (jiva) from the material world (ajiva).

According to Sankhya, the universe evolves through the interaction of Purusha and Prakriti; Prakriti evolves from its unmanifest state to the manifestation state. The ultimate goal of life is liberation from the cycle of birth & death (Samsara). Consciousness also means transcending the limitations of the ego and mind and recognizing the underlying unity of all existence to achieve liberation or moksha.

2) Science & Knowledge Traditions in Ancient India:

The traditional knowledge system is a comprehensive millennia-old repository of knowledge, spanning science, technology, medicine, mathematics and philosophy.

The key areas include:

• Mathematics: Ancient scholars like Aryabhata and Brahmagupta developed the decimal system, the concept of zero, and early concepts of algebra and trigonometry.

• Medicine and Health: Ayurveda, Siddha and Unani are holistic systems emphasizing the balance of body and mind using herbs, minerals, and techniques like yoga, often guided by Charaka Samhita and Sushruta Samhita.

• Astronomy and Physics: Early scholars studied planetary movements, calculated eclipses, and calculated the circumference of the earth.

• Metallurgy and Engineering: Ancient India was renowned for high-grade iron production, such as the Damascus steel, and the metallurgical skills behind the Delhi iron pillar.

Env. Science and Agriculture: Traditional water management techniques, such as stepwells and local ecological understanding are key aspects.

Ancient Indian scholars made foundational contributions to science. The key scientific contributions include:

• Mathematics and Astronomy

– Aryabhata: Introduced the place-value system, calculated accurate planetary motions, and proposed a heliocentric model, explaining that the Earth rotates on its axis.

– Brahmagupta: Defined the usage of zero and negative numbers, laying the foundation for modern arithmetic.

– Baudhayana: Authored the Sulba Sutras which included early formulations of the Pythagorean theorem and calculation of π (pi).

– Pingala: Described the binary number system in his work Chhandashastra.

• Medicine and Ayurveda: Surgery (Ayurveda):

– Sushruta: Known as the "Father of surgery", he authored the Sushruta Samhita, detailing complex procedures like rhinoplasty (plastic surgery) and specialized medical instruments.

– Charaka: Known as the "Father of Indian medicine", wrote the Charaka Samhita, focusing on diagnosis, digestion, immunity and preventive care.

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

• Physical and chemical sciences:

– Kanada: Founded the Vaisheshika school of philosophy, proposing an early atomic theory that matter consists of indivisible particles (anu).

– Varahamihira: Contributed to hydrology and ecology, identifying termites and plants as indicators of underground water.

• Nagarjuna: Famous for pioneering work in metallurgy and alchemy, refining metals and creating dyes.

3) Ayurveda yoga and holistic health systems:

"Sama dosha sama agnischa sama dhatu malakriya
prasanna atma indriya mana swastha iti abhidheyate"

Ayurveda and Yoga are ancient, intertwined Indian systems designed to promote holistic health by balancing body, mind and spirit.

1. Balanced (Sama):

a) Doshas (Vata, Pitta, Kapha)

b) Agni (Digestive Fire)

c) Dhatu (Body tissues)

d) Mala Kriya (Excretions)

2. Equilibrium status of (prasanna):

a) Soul (atma)

b) 5 sense & organs of action (Indriyas)

c) mind (mana)

Aim and Goal of Ayurveda:

"Swasthasya – Swasthya Rakshanam"

– Preserving the health of the healthy

" Aturasya – Vikara Prashamanam "

– Alleviating/reducing the disease of the diseased

In the Indian philosophy, the yoga and Ayurveda, the traditional medical system practiced through centuries, the classification of sattvic, rajasic, and tamasic foods is important. These classifications are based on the qualities they impart to the mind and body.

Ayurveda focuses on personalized, preventive care through diet, herbs and detoxification (Panchakarma), based on individual constitution, and Yoga enhances physical strength, mental clarity and emotional harmony via poses (asanas), breathing (pranayama), and meditation.

There are four paths of Yoga. The purpose of life is to realize the unity of the individual self with the universal and to transcend the cycle of birth and death – to find liberation from the cycle of reincarnation and attain moksha.

The four stages of life:

• Karma yoga is yoga that is linked to selfless service

• Bhakti yoga is devotional yoga

• Jnana yoga is a type of yoga that focuses on knowledge

• Patanjali yoga / Raja yoga / Ashtanga Yoga

Patanjali's yoga sutra is further divided into four chapters:

• Samadhi Pada: What yoga is

https://www.gapgyan.org/

• Sadhana Pada: how to achieve the state of yoga
• Vibhuti Pada: Benefits of yoga practices
• Kaivalya Pada: Ultimate goal or result of regular practice, which is freedom from pain and suffering

It contains 195 / 196 sutras in total.

Maharshi Patanjali is the incarnation of Adisesha.

Integrative medicine is an evidenced based holistic approach that combines conventional western medicine with complementary therapies (such as acupuncture, nutrition, or mindfulness) to treat the whole person—mind, body and spirit. Integrative medicine encourages a team-based approach, involving doctors and practitioners, to create a comprehensive plan to promote health and resilience rather than just treating symptoms.

4) Governance and Economics in Indian texts:

Ancient Indian texts establish a strong link between governance (Rajdharma) and economic (Arthashastra), prioritizing a welfare state, ethical leadership and high accountability. Key scriptures like the Arthashastra, Mahabharata and Manusmriti emphasize that a king's duty is to ensure the prosperity and happiness of subjects, where tax collection is linked directly to providing public services.

The traditional Indian concept of statecraft was primarily derived from KAUTILYA's "ARTHASHASTRA" (4th century BC). It offers a framework of moral absolutism and cynical realism. In great epics like the Mahabharata is an example of statecraft, where it remains profoundly relevant in navigating modern political, economic, and security challenges.

Knowledge is not accepted until we have arrived, aberrations and some flashes come and go. The knowledge learnt is for living and the noble thoughts should come from every corner. We always believed in acknowledging the search for wisdom; let the wisdom prevail – let the good thought prevail and peace remain. Peace is elusive.

International relations is going under a profound transformation. The concept of aligning without being aligned allows INDIA to maintain strategic autonomy in a fragmented world such as strong ties with Russia and the west. The liberal international laws are being eroded and principles of strategic governance are being distributed. The KAUTILYA's Arthashastra challenges western view that Indians lacked strategic culture, but he proves them wrong by stating the ideas in Arthashastra. He was a realist and always had a realistic approach.

The mandala framework underlies India's neighbourhood first aiming to secure its periphery through economic cooperation and diplomacy. The four upayas are being used today in a nuanced manner to disrupt hostile networks. The Saptanga theory is reflected in the modern focus on "Comprehensive National Power". The traditional Indian concept of statecraft is not just a historical relic but a vibrant, evolving framework.

Ethical leadership2 in Indian Culture emphasizes on Dharma (righteous duty) and Nishkama karma (selfless action), and the welfare of society over personal gain. The core ethical leadership themes include:

• Integrity (Satya): Upholding truth and ethical standards even under pressure
• Selfless service: Leading for the welfare of all (Lokasangraha)
• Equanimity: Maintaining a stable mind (Samatvam) through successes and failures
• Social responsibility: Prioritizing the welfare of stakeholders and society
• Self-discipline: Cultivating a sattvic (pure/balanced) nature to make better decisions

Environmental wisdom in the IKS is deeply rooted in viewing nature (PRAKRITI) as sacred, emphasizing the interconnectedness of all life, and advocating for sustainable, non-violent co-operative existence.

The IKS highlights the contemporary value of the UPANISHADS, YOGA and other ancient knowledge sources in recalibrating our current development paths towards a more sustainable environment, peace and well-being.

https://www.gapgyan.org/

Advances in science and technology has provided us a tremendous power, but there are diverse challenges in ethical, ecological, societal and economic areas to name a few. We as human beings need to restore the planet and need to remedy the negative impacts. Collaboration among policymakers, technology developers, civil society organizations and the public is essential.

The philosophical underpinnings of sustainability in Hinduism, Buddhism, Jainism and IKS gives us a varied picturesque of the practices in IKS. The ethical principles such as Ahimsa (non-violence), Panchabhuta (the five elements) and the sacredness of nature consist the environmental stewardship. It also examines the ways in which traditional practices, such as water conservation, organic farming and reverence for sacred groves promote environmental sustainability.

The contemporary relevance of these ancient principles can be explored in light of present ecological challenges, particularly in the context of biodiversity loss, climate change and resource depletion.

The core principles in sustainable economics defines as:

• Vasudhaiva Kutumbakam (world as one family): Economic decisions focus on the well-being of all, balancing human needs with ecological limitations

• Prakriti (Nature) centricity: recognizing the inherent value of nature, IKS prioritizes environmental preservation and regenerative practices over exploitation

• Dharmic consumption: Focuses on conscious consumption, where needs are prioritized over wants, fostering voluntary simplicity.

• Community-led governance: Local management of resources (e.g., traditional irrigation systems) ensures equity and sustainability.

5) Education systems in Indian traditions:

The Gurukulam education system is an ancient Indian residential learning tradition where students (shishya) live with their teacher (guru) in an ashram to receive holistic education, focusing on academic, spiritual, and character development. Rooted in the Vedic period, it emphasized discipline, self-reliance, and individualized attention.

The core aspects of the Gurukulam system:

• Residential learning: Students (shishyas) live with their guru, often in nature-focused secluded environments.

• Guru–Shishya tradition: An intense mentorship relationship based on trust, respect and mutual understanding.

• Holistic curriculum: Instruction went beyond academics to include Vedas, philosophy, science, arts, and military training, alongside daily chores that teach self-reliance.

• Values and ethics: The core focus is on moral development, discipline, and building a balanced, respectable personality.

Modern resurgence has created a void between the traditional wisdom and modern knowledge framework. And to bridge the gap between stem Indian knowledge system has a crucial role to play to integrate our ancient culture into contemporary teaching practices. This approach connects the students with our rich Indian cultural heritage and encourages innovative thinking through interdisciplinary methods.

The use of mnemonic techniques from Sanskrit language sharpens memory and linguistic skills, benefiting students in all disciplines. Indian Knowledge system can contribute to a more balanced and contextually, a relevant educational system.

Indian knowledge system offers valuable insights which align with our modern educational goals creating awareness about the surroundings and environment, nurturing moral and ethical values, emphasizing the need for sustainability and holistic education. Traditional knowledge was often passed on orally by our ancestors next

https://www.gapgyan.org/

generation in contrast to modern times basing mainly on academic and literate transmission. Following our elders traditional methods of oral storytelling, participatory learning, trainee-ship models into the formal educational framework can really help the newer generations.

Over the years, humans have developed practices and skills which included different types of beliefs. These knowledge and experiences enabled people to solve problems and adapt to the world changes that occurred in their environment. Hence IKS teaches several crucial lessons about sustainability, encouraging environmental supervision, supporting holistic well-being, laying stress on societal relevance, and living in harmony with nature.

Emphasizing on decolonising western education and embracing indigenous knowledge with the proper integration of IKS can significantly contribute to cognitive and ethical development while preserving India's intellectual heritage.

Value based learning in Indian tradition, so is rooted in the Vedas, Upanishads, and epics like the Bhagavad Gita, focuses on holistic development—intellectual, moral and spiritual. It emphasizes Dharma (duty), Satya (truth), Ahimsa (non-violence), and self-realization.

Key components of this tradition include:

• Core values: The foundation is built on ethical principles such as satya (truth), dharma (righteousness), karuna (compassion), and dama (self-restraint).

• The Gurukul system: Ancient education was imparted in gurukuls, where students (shishyas) learned not only intellectual knowledge (like archery or scriptures) but also life's philosophical aspects through direct mentorship.

• Holistic goal: The goal is self-realization, divine perfection, and nurturing responsible citizenship rather than just passing examinations.

• Methods of imparting values: Stories from epics like the Mahabharata, Ramayana, and the Puranas were used to impart moral education, a practice that continues through media today.

• Modern Relevance: The National Education Policy 2020 highlights the need to integrate these traditional values to combat the rise of personality malnourishment, encouraging empathy and resilience.

This educational approach aims at creating individuals who are emotionally, intellectually, and spiritually grounded, capable of contributing to societal well-being while understanding their ethical obligations.

Pedagogical4 approaches in modern texts related to Indian traditions particularly under the National Education Policy (NEP) 2020 emphasizeblending ancient wisdom with contemporary pedagogical methods to foster holistic development, cultural pride, and critical thinking. The key pedagogical approaches highlighted in recent literature include:

• Experiential and embodied learning (Kriya): Learning is treated as an active, lived process rather than a passive acquisition of knowledge. This includes hands-on learning through field studies, traditional arts (pottery, weaving), and community-based projects that foster deep understanding.

• Dialogic Pedagogy (Sakshatkara - Based Inquiry): Rooted in ancient debate and discussion traditions, this approach encourages students to engage in argumentative questioning and dialectical inquiry. This is exemplified by the Upanishadic method of dialogue, which fosters critical thinking, intellectual discourse and self-reflection.

https://www.gapgyan.org/

• Narrative and storytelling pedagogy: Using ancient texts like the Panchatantra, Jataka tales, and epics to convey ethical, moral and historical values.

The National Education Policy 2020 integrates the IKS to promote local history, languages and ethical reasoning, aiming for a "Vedic - Modern" synthesis.

Unlike passive learning, modern Indian pedagogy encourages students to question, debate (seminars/Tarka), and reflect on their personal experience. Education is designed to foster a sense of duty (dharma), ethical responsibility and global citizenship.

6) Environment and sustainability on IKS:

Ecological ethics in Indian scriptures emphasize a deep, sacred reverence for nature, viewing all elements — earth, water, air, fire and space — as divine and interconnected, rather than mere resources to exploit. The key themes, and scriptures include:

Vedas: Promote the environmental preservation by recognizing the healing virtues of nature and treating Earth as a mother (Mata Bhumih Putruahan Prithivya).

Atharvaveda: A strong emphasis is laid on our surroundings including air, water and herbs should be protected and revered.

Puranas: Promote biodiversity by associating trees like peepal and Neem with deities, and state that planting trees is a meritorious act while cutting them is a sin.

Bhagavad Gita: Advocates living in harmony with nature and fulfilling one's dharma (duty) to maintain the cosmic balance.

Manusmriti: Condemns cruelty to animals and mandates the protection of natural habitats.

The core teaching is Vasudhaiva Kutumbakam (the world is one family), extending moral consideration to all living beings.

Traditional resource management: uses indigenous knowledge, community stewardship, and ecological wisdom to maintain environmental balance, focusing on regenerative practices like rainwater harvesting, agroforestry, and organic farming. The key practices which are followed through traditional resource management are:

1. Water conservation: Ancient techniques such as johads (earthen check dams), step-wells and tank irrigation systems were used to recharge groundwater and manage water scarcity.

2. Sustainable agriculture: Mixed cropping, polyculture and crop rotation like practices are used to enhance soil health without chemical fertilizers. The use of natural inputs like cow dung manure and cultivating indigenous seed varieties ensures resilience against pests and environmental stress.

3. Forest and biodiversity management: Traditional communities, particularly indigenous tribes, rotational farming, agroforestry, and grove protection, hereby allowing ecosystems to regenerate naturally.

4. Waste management: Traditional systems prioritize a circular economy where waste is minimized and organic materials are repurposed as compost or fertilizer.

5. The traditional way of sustainable living practices are many, here are few to mention:

a. Natural housing: Using sustainable, locally available material like mud, bamboo and wood which offer insulation and have lower carbon footprints.

b. Mindful consumption: Utilizing natural crockery and preparing fresh food, reduces plastic usage and waste.

c. Traditional Medicine & wellness: Systems like Ayurveda and yoga, popular in India, emphasizes holistic health and sustainable living.

https://www.gapgyan.org/

d. Biodiversity conservation: Protecting forests and wildlife is often rooted in spiritual and cultural beliefs with communities identifying sacred areas to preserve biodiversity.

The role of Traditional Ecological Knowledge (TEK) are dynamic and community-driven, often proving highly resilient to environmental changes. By incorporating these techniques into modern environmental policies, communities can restore degraded ecosystems and ensure long-term food, water and scarcity.

7) Indian Psychology and human development:

Psychology rooted in both philosophy and biology, emerged as a distinct scientific discipline in the late 19th century. Its focus is to understand the mental functions, behavioural processes, and underlying mechanisms of human interaction with the environment. It includes various theoretical approaches, including cognitive, behavioural, psychodynamic, and humanistic approaches. It covers a vast range from basic cognitive processes to the complexities of social interaction and development.

Beliefs and attitudes are products of the mind. Our beliefs about ourselves, others and the world influence our choices, actions and interactions with others. Not all mental processes are conscious. The unconscious mind influences our behaviour through hidden biases, automatic responses, and underlying psychological mechanisms. Each of these perspectives views the origin of thoughts differently, reflecting the diverse ways we try to understand the complexities of the mind and consciousness. This journey shows a gradual but significant evolution in our understanding of the human mind and behaviour.

From the abstract concepts of the soul and rationality in ancient times to the empirical and integrative approaches of today, psychology has evolved continuously, reflecting on the conditions of a broader understanding of what it means to be a human.

Many indigenous cultures often see thought as inseparable from the body, spirit, and the natural world. Thoughts are not just individual mental activities but are interconnected with the community, ancestors and the environment. The insights of the some of the ancient thinkers about the divine ways in which philosophical tradition have grappled with the nature of the mind and consciousness. They laid the intellectual groundwork for modern psychology (philosophy), and neuroscience providing a rich historical context for contemporary discussions about the human mind. To integrate the diverse perspectives, we need a balanced acknowledgement of the strengths and limitations of both objective inquiry and subjective experience. Hence let's understand the significance of the mental health through the lens of our ancient wisdom.

Ancient Indian traditions offer a holistic approach to mental health that integrates physical, mental and spiritual well-being. The Vedas, Upanishads, Bhagavad Gita, Ayurveda, and Yoga shastras are few examples of ancient texts that offer advice.The connection between my consciousness is in the form of organic, spontaneous, timelessn and eternal wisdom. It has the power to heal and deal with us. (The Dristi and the Shristi). It is the eternal relationship between God, Nature and humans. Happiness is not there, it is within ourselves. Self is the ANANDA; the concept of karma where we are the creators of our own destiny. And culture is the outcome of the knowledge with unlimited desires and limited resources, where SADHANA only can clean the clutter.

In trying to understand the essence of life, it is essential to integrate ancient wisdom with modern scientific knowledge. According to various spiritual traditions, particularly Yoga-Vedanta, there is another concept of life force or energy referred to as the KUNDALINI. It is the primal energy located at the base of the spine. We imagine this as a dormant but powerful force within us, visualised as a coiled serpent sleeping at the base of the spine.

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

The practice of various yogic disciplines is to awaken this potent energy; when awakened through practices such as yoga or meditation, this energy rises through the spine in a channel called the "Sushumna", activating energy centres within us called chakras.

In modern science, there is no direct evidence to show the Kundalini, Sushumna and chakras as physical entities. These might seem exotic or complex, but at their core, they speak of a universal human experience; the quest of enhanced capabilities, deeper understanding, connection and fulfilment.

All thoughts are imaginary until and unless we understand our own mental model and intriguing thoughts that create fluctuations in mind. The mind, body and spirit are said to be aligned through the use of Vedic methods, which are thought to possess spiritual and vibrational power. Mantra chanting is believed to improve mindfulness, soothe the neurological system, and control breathing patterns.

The philosophical writings of HINDUISM, THE UPANISHADS highlight self-reflection, self-control, self-enquiry and detachment as essential techniques for achieving inner peace and clarity. Conditions of the mind are not new; that's the reason stress is laid on to "KNOW THYSELF".

8) Literature, arts and cultural knowledge:

Indian Tradition merges literature, arts, and cultural knowledge into a holistic system where aesthetic expression (Rasa) acts as a pathway to spiritual knowledge and ethical living. Rooted in oral traditions and sacred texts like the Vedas, Upanishads, and Epics (Ramayana, Mahabharata) this knowledge system encompasses diverse fields—from philosophy and grammar to science and fine arts—aiming for the four pursuits of Dharma: Artha, Kama and Moksha.

Sanskrit literature is categorized into Vedic literature (approx. 1500–600 BCE) and classical literature, which flourished from roughly 500 BCE to the medieval period, reaching its peak during the Gupta Empire.

Key aspects of classical Sanskrit literature:

• The two epics (Itihaasa): The Ramayana (attributed to Valmiki) and Mahabharata (attributed to Vyasa) are foundational, shaping Indian ethical, social and religious thought.

• The Panch Mahakavya (Five great epics): Highly ornate poems including Raghuvamsha and Kumara Sambhava by Kalidasa, Kiratarjuniya by Bharavi, Shishupala Vadha by Magha, and Naishadha Charita by Sriharsha.

• Drama (Nataka): Known for the use of Rasa theory (emotions). Major playwrights include Bhasa, Kalidasa (Abhignanashakuntalam), and Bhavabhuti.

• Prose and fables: Notable works include Panchatantra (dialectic stories) and prose romances by Banabhatta (Kadambari).

Scientific and Technical Literature (Shastras): Includes Panini's Ashtadhyayi (grammar), treatises on politics (Kautilya's Arthashastra), and medicine.

Key periods:

– Early classic – comprising the rise of the epic (Ramayana, Mahabharata), which codified social order and ethical ideals.

– Late/Classical period – often linked with the Gupta period, known for the proliferation of ornate kavya and the formulisation of Sanskrit as the premier language for both elite literature and academic debate.

Arts & Aesthetic knowledge and Expression:

https://www.gapgyan.org/

• Performance Arts (Natya): The Natyashastra classifies classical dance (e.g., Bharatanatyam) and music (Hindustani, Carnatic) not just as entertainment, but as Rasa (emotional essence), evoking aesthetic bliss similar to spiritual realization.

• Visual arts & Architecture: Ranging from Indus Valley seals to Gupta-period temple architecture, art serves as a vehicle for transmitting values.

• The 64 arts (Chatushashti Kala): Traditional texts list numerous art forms including crafts, painting and music as vital to human life.

Cultural heritage studies is an interdisciplinary field examining both tangible (monuments, artefacts) and intangible (traditions, languages) legacies inherited from the past, focusing on their management, interpretation, and role in modern society. Key aspects include:

• Tangible & intangible heritage: Studies cover physical objects (buildings, landscapes) and living culture (rituals, skills).

→ Management and Policy – Explores the sustainable development, protection, and political aspects of managing heritage sites.

→ Critical approaches – Analyzes how heritage is chosen and used to build identities, often focusing on "dissonant" or conflict related heritage.

→ Digitalisation – Examines the role of digital tools in documenting, preserving, and re-interpreting cultural objects.

9) Management and leadership in Indian thought:

The Bhagavad Gita offers timeless leadership lessons focused on selfless action (Karma Yoga), emotional balance (equanimity), and integrity.

• Selfless service & Duty (Karma Yoga): Focus on doing your duty (Dharma) with excellence, without being driven by selfish desires or attachment to results.

• Equanimity (Sthitaprajdna): Maintain a calm mind and stable judgement in both success and failure, ensuring actions are not affected by ego.

• Courageous decision-making: Leaders must confront challenges rather than avoid them, embracing difficult decisions with a sense of purpose.

• Self-awareness & Discipline: Mastery over oneself (mastering desires and danger) is necessary to lead others effectively.

• Leading by inspiration: Move away from authoritarian control and focus on inspiring followers through strong character, wisdom, and compassionate actions.

• Understanding & motivate individuals: Leaders should recognize the unique nature and capabilities of their team members to build strong, effective teams.

• Maintain character Integrity: The foundation of effective leadership is high moral character and serving as a role model.

• Long term vision5: Focus on sustainable development, considering the long-term impact on stakeholders and the environment rather than short-term gains.

Dharma, righteousness or duty, is a central concept in Sanatana Dharma. It implies moral and ethical principles that guide us in living harmoniously with the universe and fulfilling our responsibilities on various roles and relationships.

https://www.gapgyan.org/

The entire Veda is the root source of dharma, as are the recollection and virtuous conduct of those who know the Veda, the custom of holy men, and self-satisfaction. It is a property it sustains, a being one with nature helps us to heal back. Having this wisdom, we should have this maturity to understand and communicate properly, sincerely, values-based decision making, such as fairness, honesty and compassion. When Viveka gnana is not used, the ability to think and do the right thing shrinks.

In "DHARMAPAL", It quotes, have something parallel always. Create a buffer from the skills you possess and keep an eye on disruptive innovations.

"YATO DHARMASTATO JAYAH"

(where there is dharma, there is victory)

10) Transdisciplinary Research methodologies

An indigenous research framework is a decolonizing methodology centering indigenous worldviews, knowledge systems, and community sovereignty, focusing on relational accountability (Respect, relevance, reciprocity, responsibility, relationship).

Key aspects of an indigenous research framework include:

• Relationality6: focuses on relationship between the researcher, community, and the environment rather than studying subject in isolation.

• The 5 Rs: often guides ethical & respectful research through Respect, Relevance, Reciprocity, Responsibility, and Relationship.

• Indigenous Data Sovereignty: Emphasizes that indigenous people have the right to own, control and govern their own knowledge and data.

• Decolonization: Actively challenges traditional western research methodologies that have historically marginalized indigenous perspectives.

• Methodologies: Utilises methods such as storytelling, community interviews, participant observation, and sharing circles that align with cultural practices.

This integrates spiritual, physical, emotional and social aspects of community life. The goal is to generate knowledge that improves well-being and fosters resilience. Integrating modern and traditional research methods combines historical knowledge such as indigenous wisdom or qualitative fieldwork with digital tools i.e., AI and evidence-based trials to provide comprehensive, culturally sensitive insights. This approach bridges the gap between deep contextual understanding and high-accuracy data, enhancing validity, inclusivity and practical outcomes.

Conclusion:

Pursuit of knowledge has always been one of humankind's noblest endeavours. Rishis, seers, and seekers of knowledge in Bharat often regarded the seeking jijnasa as the cradle of intellectual and philosophical thought. Bharat was home to such great luminaries whose works reflect this Tapasya for knowledge.

References

[1] Granthalayah Publications and Printers India
[2] Granthalayah Publications and Printers India
[3] https://academic.in/
[4] Kripa-drishti Publications
[5] Research paper from IIM Bengaluru

https://www.gapgyan.org/

[6] https://www.taylorfrancis.com

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

"Bhartiya Gyan Parampara in Higher Education: A Transdisciplinary Study of Sanskrit and Value-Based Mottos in the Logos of Selected State Government Universities of Gujarat"

PREPARED BY

KRUNAL V. CHAVDA
RESEARCH SCHOLAR
SHRI GOVIND GURU UNIVERSITY
GODHRA.

Abstract

This study explores the role of Bhartiya Gyan Parampara (Indian Knowledge Tradition) in higher education through a transdisciplinary analysis of Sanskrit and value-based mottos embedded in the logos of 15 selected state government universities of Gujarat. University logos are not merely visual identifiers but serve as carriers of deep philosophical, cultural, and educational ideals rooted in India's rich intellectual heritage. The research is based entirely on secondary sources, including university websites, official publications, books, research articles, and classical Sanskrit texts such as the Vedas and Upanishads.

The study adopts a qualitative, exploratory, and descriptive research design. It primarily employs document analysis to identify and document Sanskrit mottos and trace their original textual sources within Bhartiya Gyan Parampara. Further, interpretative and philosophical methods are used to analyse the deeper meanings and transdisciplinary relevance of these mottos. Educational relevance is also discussed.

The findings reveal that these mottos embody core Indian values such as knowledge (jnana), truth (satya), harmony (samanvaya), righteousness (dharma), and enlightenment (vidya), which transcend disciplinary boundaries and connect fields like education, ethics, management, and social sciences. These values contribute significantly to shaping holistic and value-oriented higher education.

Moreover, the study evaluates how these motto-based principles address contemporary global challenges, including ethical concerns, sustainability, and the demand for inclusive knowledge systems. It argues that integrating indigenous knowledge traditions into modern academia enhances critical thinking, moral responsibility, and cultural rootedness.

By bridging ancient wisdom with contemporary educational practices, this research contributes to the discourse on decolonizing education and revitalizing Bharatiya knowledge systems, highlighting the enduring relevance of Sanskrit mottos as guiding principles for higher education institutions.

Keywords: *Bhartiya Gyan Parampara; Sanskrit Mottos in logo of university; Higher Education; Indian Knowledge System (IKS); Value-Based Education.*

INTRODUCTION

India possesses one of the oldest and richest knowledge traditions in the world, commonly referred to as Bhartiya Gyan Parampara. Rooted in ancient scriptures such as the Vedas, Upanishads, and Bhagavad Gita, this tradition emphasises holistic education, ethical living, spiritual development, and the pursuit of सत्य (truth), धर्म (righteousness), and ज्ञान (knowledge). Unlike the purely utilitarian approach of modern education systems, Bhartiya Gyan Parampara integrates intellectual, moral, and spiritual dimensions, thereby fostering the all-round development of individuals.

In the contemporary context of higher education, there is a growing recognition of the need to reconnect with indigenous knowledge systems and value-based education. This shift is also reflected in national educational frameworks such as the National Education Policy 2020, which advocates the integration of Indian knowledge systems into curricula and institutional practices. Universities, as centres of knowledge creation and dissemination, play a crucial role in preserving and promoting these traditional values.

One significant yet often overlooked medium through which Bhartiya Gyan Parampara is represented is the logos of universities, particularly through their Sanskrit mottos. These mottos encapsulate profound philosophical ideas, ethical principles, and educational ideals in a concise and symbolic form. For instance, many universities adopt phrases derived from classical texts that emphasise wisdom, purity of knowledge, and societal welfare.

https://www.gapgyan.org/

Such mottos are not merely decorative elements but serve as guiding principles that reflect the institution's vision, mission, and cultural identity.

In the state of Gujarat, several state government universities incorporate Sanskrit and value-based mottos in their logos, representing a blend of traditional wisdom and modern educational aspirations. These mottos often draw from ancient Indian philosophical traditions and embody ideals such as knowledge integration, ethical conduct, and social responsibility. However, despite their significance, there has been limited transdisciplinary research examining the philosophical, educational, and cultural meanings embedded in these mottos.

This study aims to explore the intersection of Bhartiya Gyan Parampara and higher education by analysing Sanskrit and value-based mottos in the logos of selected state government universities of Gujarat. Adopting a transdisciplinary approach, the research integrates perspectives from philosophy, education, linguistics, and cultural studies to decode the deeper meanings and relevance of these mottos in the contemporary academic landscape. By doing so, the study seeks to highlight how traditional Indian wisdom continues to influence and enrich modern higher education institutions.

Thus, this research not only highlights the enduring relevance of Bhartiya Gyan Parampara but also underscores the importance of reinterpreting and revitalising these ancient ideals within the contemporary higher education landscape.

2. LITERATURE REVIEW

Kole, P & Raorane, T. (2026). This research paper was about setting Sanskrit proverbs in an artificial intelligence model and spreading their knowledge to the people. A software called Pragya was created to solve the problems of the people, which works through the Augmented Generation Retrieval (AGR) system. This can be obtained using modern applied AI to obtain knowledge related to classical wisdom. In which there was a data set of 200 Sanskrit proverbs. Using this model, questions related to motivation, friendship and courage could be solved. This model was developed to remove the linguistic and contextual barrier related to Sanskrit language in today's digital age. From this research, it was found that the customer got satisfactory answers through the Pragya model. This model was also very useful for non-Sanskrit speakers.

Rose, V. & Kadian, R. (2024). The title of this research was Exploring the Scientific Principles of Ancient India Education: Indian Knowledge Tradition. For this, old Indian books or texts related to Upanishads, Vedas, Samhita and Ayurveda were used. In addition, information related to Yoga Mathematics and Astronomy was also included. From this research, it was found that all branches of knowledge were mentioned in Indian Puranic texts. The health-related matters in Ayurveda are still not discovered in today's science. The theory of Karma is also very important for Ethics and Philosophy. To solve many of the current issues or problems, it is necessary to harmonise Indian traditional understanding with modern approaches. Today, Ayurveda is used in making medicine. The use of Yoga for mental health, meditation and pranayama has made stress control and cognitive function possible. Keeping environmental ethics in mind in sustainable development is also a current practice, according to the Indian knowledge tradition. Through which many successes have also been achieved. In today's technological and scientific world, by considering the Indian knowledge of the moral law of karma, the world can be guided in the right direction. No other branch of knowledge in the world has the ability to provide timeless wisdom. Therefore, Indian knowledge should not be seen as just a cultural heritage, but as the total development of humanity.

National Education Policy (2020) In the present times, the lens of knowledge is changing in the world. More emphasis is given on critical thinking. In this 21st century, it is no longer important for a student to gain knowledge of only one subject. It has become necessary for him to develop his skills in as many different branches of knowledge as possible. The National Education Policy has suggested providing education according to the philosophy of ancient India. Knowledge, wisdom, and truth are considered the highest values of human life. Education should not be given only to get a school or a job, but also to provide it in a way that the student can achieve self-realisation and liberation. One-on-one peer learning has recently been decided to increase the focus. Ani P has emphasised adopting a more holistic education method, like inquiry-based, discovery-based, and discussion-based. CPD, Continuous Professional Development, Career Management and Progression were also important aspects in the education system.

Research Objectives

- To identify and document the Sanskrit mottos present in the logos of selected state government universities of Gujarat and examine their original textual sources within Bhartiya Gyan Parampara.
- To analyse the philosophical and transdisciplinary significance of these Sanskrit mottos in reflecting indigenous knowledge systems and their relevance to contemporary higher education.
- To evaluate how these logo-based Sanskrit mottos embody educational values and contribute to addressing contemporary global challenges through the lens of Bhartiya Gyan Parampara.

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

Research Methodology:

The present study adopts a qualitative and exploratory research design to analyze Sanskrit and value-based mottos in the logos of selected state government universities of Gujarat. It is descriptive in nature and follows a transdisciplinary approach, integrating insights from Indian philosophy, education, linguistics, and cultural studies. The research is primarily based on secondary data, collected from official university websites, institutional documents, and classical Indian texts such as the Vedas, Upanishads, and Bhagavad Gita. A purposive sampling technique is used to select universities that prominently feature Sanskrit or value-based mottos in their logos.

For analysis, the study employs content analysis, thematic analysis, and interpretative methods to explore the philosophical and educational meanings embedded in the mottos. A comparative approach is also used to identify common themes such as knowledge, truth, and ethical values across institutions. The conceptual foundation is based on Bhartiya Gyan Parampara, emphasizing holistic and value-based education. The study is limited to selected universities and relies on secondary sources, which may introduce subjectivity in interpretation, but it maintains academic rigor through the use of authentic references and systematic analysis.

Discussion:

No.	University Name	Motto (From Logo)	Meaning
1	Bhaktkavi Narsinh Mehta University, Junagath	तमसो मा ज्योतिर्गमय । Tamaso Ma Jyotirgamaya	Lead me from darkness (ignorance) to light (knowledge)
2	Children's University, Gandhinagar	सत्यम् ऋतम् बृहत् Satyam Ṛtam Bṛhat	Truth • Cosmic Order • Greatness
3	Dr Babasaheb Ambedkar Open University, Ahemdabad	॥ स्वाध्यायः परमं तपः ॥ Svadhyayah Paramam Tapah)	Self-study is the highest form of penance.
4	Gujarat Technological University, Ahmedabad	समुचित ज्ञान समन्वयः Samucita Jñāna Samanvayaḥ	"The proper and harmonious integration of knowledge."
5	Gujarat UniversityAhmedabad	योगः कर्मसु कौशलम् Yogah Karmasu Kaushalam	Excellence in action is skill (Yoga).
6	Hemchandracharya North Gujarat University Patan	पावका नः सरस्वती Pāvakā Naḥ Sarasvatī	"May Goddess Saraswati purify and enlighten us."
7	Indian Institute of Teacher Education Gandhinagar	॥ न हि ज्ञानेन सदृशं पवित्रमिह विद्यते ॥ Na hi jñānena sadṛśaṃ pavitramiha vidyate	"Certainly, there is nothing in this world as purifying as knowledge."
8	Krantiguru Shyamji Krishna Verma Kachchh University Bhuj	॥ तेजस्वि नावधीतमस्तु ॥ Tejasvi navadhitamastu	"May our study be brilliant." or "May what we study be filled with brilliance."
9	Maharaja Krishnakumarsinhji Bhavnagar University Bhavnagar	तमसो मा ज्योतिर्गमय । Tamaso Ma Jyotirgamaya	Lead me from darkness (ignorance) to light (knowledge)
10	Sardar Patel University Vallabh Vidyanagar	॥ शीलवृत्तफला विद्या ॥ Sheelavruttaphala Vidya	'True education (knowledge) is that which bears the fruit of excellent character and good conduct.'"
11	Saurashtra University Rajkot	पावका नः सरस्वती Pāvakā Naḥ Sarasvatī	"May Goddess Saraswati purify and enlighten us."
12	Shri Govind Guru University Godhra	॥ अमृतं तु विद्या ॥ Amrutam tu Vidya	"Knowledge leads to Immortality."
13	Shri Somnath Sanskrit University Veraval	॥ पूर्णता गौरवाय ॥ Pūrṇatā Gauravāya	"Completeness leads to glory"
14	The maharaja Sayajirao university of baroda Vadodara	॥ सत्यं शिवं सुन्दरम् ॥ Satyam Shivam Sundaram	Truth is God, God is Goodness, and Goodness is Beauty.
15	Veer Narmad South Gujarat University	॥ सत्यम् ज्ञानम् अनन्तम् ॥ Satyam Gyanam Anantam	Truth and Knowledge are Infinite.

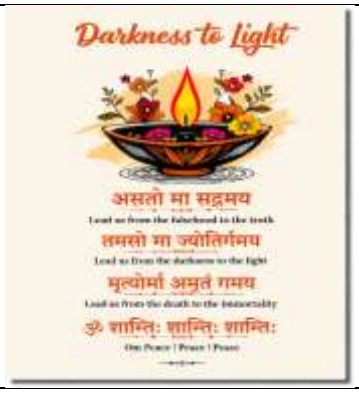
https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

	Surat		

To analyse the philosophical and transdisciplinary significance of these Sanskrit mottos in reflecting indigenous knowledge systems and their relevance to contemporary higher education.

1.&9 MKBU AND BKNMU

1.BKNMU JUNAGADH		9. MKBU BHAVNAGAR
		
	Ref: Brihadaranyaka Upanishad – Chapter 1, Section 3, Verse 28	

The motto "Tamaso Ma Jyotirgamaya" comes from the Brihadaranyaka Upanishad, one of the oldest and most important Upanishads in Indian philosophy. Taken from the full verse, which असतो मा सद्गमय । तमसो मा ज्योतिर्गमय ।मृत्योर्मा अमृतं गमय ॥

Tamaso (तमसो) → Darkness / Ignorance

Ma (मा) → From

Jyotir (ज्योतिः) → Light / Knowledge

Gamaya (गमय) → Lead me to

Translation:

"Lead me from darkness (ignorance) to light (knowledge)"

Philosophical Explanation

This line is a spiritual prayer expressing the human desire for inner awakening and enlightenment:

Darkness (Tamas): Ignorance, Illusion (Avidya) and Lack of awareness

Light (Jyoti): Knowledge (Vidya), Truth, Self-realisation

It symbolises the journey:

From ignorance → knowledge

From confusion → clarity

From material illusion → spiritual truth

Academic Interpretation

Role of education in removing ignorance

Universities as centres of enlightenment

Emphasis on intellectual + moral development

This motto is not just a slogan but a core principle of Indian philosophy, emphasising that the ultimate goal of life and education is enlightenment through knowledge.

Education plays a vital role in removing ignorance by guiding individuals from darkness toward knowledge and truth. It transforms students into enlightened individuals by fostering intellectual growth, moral values, and self-awareness.

The mantra "Asato Ma Sadgamaya, Tamaso Ma Jyotirgamaya, Mrityor Ma Amritam Gamaya" holds great academic significance as it is widely used in universities, educational institutions, and educational philosophy. It symbolises the fundamental role of education in removing ignorance and guiding individuals towards truth and knowledge. This verse reflects the transformative power of education, which not only imparts information but also develops enlightened, responsible, and aware individuals. It emphasises the journey of students from darkness to light, representing intellectual and moral development. Due to its deep philosophical meaning, it is frequently quoted in convocations, institutional values, and academic mottos to highlight the ultimate aim of education as holistic and spiritual growth.

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

2. Children's University



Ref:(Rigveda, trans. Griffith, 1896/1973; Radhakrishnan, 1923

The logo of Children's University (now also known as Children's Research University) represents its focus on holistic child development and research-oriented education. Satyam (सत्यम्) – Truth embodies ultimate truth, focusing on honesty, authenticity, and alignment with reality. In Indian philosophy, it represents more than just factual correctness; it embodies harmony with the eternal reality (Sat), encouraging integrity in thought, speech, and action. Satyam guides individuals toward self-realisation, moral discipline, and ethical living, forming the foundation of a meaningful existence.

Ṛtam (ऋतम्) – Cosmic Order refers to the universal law that governs the cosmos, ensuring harmony, balance, and righteousness (Dharma). In Indian philosophy, Ṛtam aligns existence with a higher order, connecting human conduct to a moral and cosmic framework. It emphasizes that individual behavior should harmonize with the larger order of nature and ethics, highlighting that truth (Satyam) operates within a structured system of universal balance.

Bṛhat (बृहत्) – Greatness / Vastness signifies expansion, greatness, and the infinite. It symbolises intellectual growth, spiritual elevation, and broad-mindedness, encouraging individuals to transcend the limitations of the self and move toward universal consciousness. Philosophically, Bṛhat represents the highest state of knowledge, wisdom, and enlightenment.

Educational Explanation

In the context of the Children's University, this motto beautifully integrates philosophy with education:

1. Truth-Centred Education (Satyam): Encourages students to develop critical thinking, honesty, and authenticity. Promotes value-based learning rather than rote memorisation.
2. Holistic and Ethical Development (Ṛtam): Education is aligned with natural laws, ethics, and social responsibility. Helps learners understand their role in maintaining harmony in society and the environment.
3. Expansion of Knowledge (Bṛhat): Focuses on holistic growth—intellectual, emotional, and spiritual. Encourages creativity, innovation, and lifelong learning.

3. Dr Babasaheb Ambedkar Open University



Ref : Taittirīya Upaniṣad, 1.9 & 1.11

Meaning: Self-study is the highest form of discipline (austerity).

1. In the Context of Bharatiya Philosophy

In Indian philosophical tradition, Svādhyāya (self-study) is considered a vital path to self-realisation and inner growth, as emphasized in texts like the Taittiriya Upanishad and Bhagavad Gita. It involves not only the study of scriptures but also deep self-reflection and introspection. The term Tapaḥ (austerity or discipline) signifies dedication, self-control, and spiritual effort. Thus, the motto conveys that continuous self-learning and inner discipline are the highest forms of spiritual practice, leading an individual toward knowledge, wisdom, and self-realization.

2. In the Context of University Education

In the educational framework of an open university system, this motto highlights the importance of independent learning and self-discipline. At Dr Babasaheb Ambedkar Open University, where distance and flexible education are key, Svādhyāya reflects the learner's responsibility to engage in self-study beyond formal classroom teaching. Paramaṁ Tapaḥ emphasizes perseverance, dedication, and consistent effort in the learning process. Together, the motto promotes lifelong learning, autonomy, and the development of self-motivated learners who can achieve academic and personal excellence.

4. Gujarat Technological University

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.



Ref: Bhagavad Gita, Brahma Sutra, Chandogya Upanishad.

समुचित ज्ञान समन्वयः (Samucita Jñāna Samanvayaḥ)

Meaning: Proper/Appropriate Knowledge Integration

Philosophical Explanation

In the context of Indian philosophy, this motto reflects the idea of harmonising knowledge (Jñāna) with appropriateness (Samucita) and integration (Samanvaya). Indian knowledge traditions—especially Vedanta and Nyaya—emphasise that true wisdom is not fragmented but holistic and interconnected. The term Samanvaya is often used in classical texts to denote the synthesis of diverse ideas into a unified truth. Thus, the motto signifies that knowledge must be balanced, contextually appropriate, and integrated with ethical and practical wisdom, leading to complete understanding and intellectual harmony.

Educational Explanation

In the academic context of GTU, the motto emphasizes integration of multidisciplinary knowledge across fields like engineering, management, pharmacy, and technology. It highlights that education should not remain isolated within subjects but should promote interdisciplinary learning, innovation, and practical application. The idea of Samucita ensures that knowledge is relevant and need-based, while Samanvaya promotes coordination between theory and practice. Overall, the motto reflects GTU's vision of producing skilled, innovative, and socially responsible professionals through a balanced and integrated education system.

5. Gujarat University



Ref: Vyasa. (Trans.). (2015). Bhagavad Gita (Chapter 2, Verse 50).

In Indian philosophy (especially Karma Yoga):

Yoga (योग) = union, balance, inner discipline

Karmasu (कर्मसु) = in actions/duties

Kaushalam (कौशलम्) = skill, efficiency, wisdom in execution

Philosophical Explanation:

The motto Bhagavad Gita "योगः कर्मसु कौशलम्" (Yogah Karmasu Kaushalam) conveys a central idea of Indian philosophy, particularly the doctrine of Karma Yoga. It means that yoga is the art of performing actions with skill, mindfulness, and inner balance. Here, yoga signifies a state of harmony between mind and action, while kaushalam implies excellence and wisdom in execution. Philosophically, it teaches that one should perform duties with full dedication but without attachment to the results (निष्काम कर्म). This detachment leads to equanimity in both success and failure, fostering inner peace and spiritual growth. Thus, every action becomes a path toward self-realization and contributes to the welfare of society.

Educational Explanation:

In the educational context, the motto emphasises that true learning lies in the effective and ethical application of knowledge. It highlights the importance of developing skills, competence, and precision in performing tasks rather than merely acquiring theoretical understanding. Students are encouraged to approach their work with discipline, creativity, and responsibility, ensuring quality and excellence in every action. Moreover, it promotes a holistic approach to education, integrating intellectual development with moral values and practical efficiency. Therefore, education guided by this principle aims to produce individuals who are not only knowledgeable but also skilled, ethical, and capable of contributing meaningfully to society.

6. Hemchandracharya North Gujarat University &	11. Saurashtra University

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.





Ṛgveda. (2012). Ṛgveda Saṁhitā (1.3.10). Gorakhpur, India: Gita Press.

Philosophical Explanation

The motto Rigveda "पावका नः सरस्वती" (Pāvakā Naḥ Sarasvatī) originates from the Rigveda (1.3.10) and carries deep philosophical significance in Indian thought. The term Pāvakā means "purifying" or "that which cleanses," Naḥ means "our," and Sarasvatī refers to the goddess of knowledge, speech, and wisdom. Philosophically, the mantra invokes Saraswati as the divine force that purifies the intellect and elevates human consciousness. It reflects the Vedic idea that true knowledge is not merely informational but transformative—it purifies ignorance (अविद्या) and leads to enlightenment (विद्या). The mantra emphasizes that wisdom should refine thought, speech, and action, guiding individuals toward truth (सत्य) and righteousness (धर्म). Thus, knowledge is seen as a sacred force that uplifts both the individual and society.

Educational Explanation

In the educational context, the motto highlights the role of knowledge as a purifying and empowering force in human life. It suggests that education should not only provide information but also cultivate clarity of thought, moral values, and intellectual integrity. The idea of "Pāvakā" (purification) implies that education must remove ignorance, confusion, and unethical tendencies, shaping students into responsible and enlightened individuals. It encourages learners to develop disciplined thinking, effective communication, and a commitment to truth. In modern higher education, this translates into fostering critical thinking, ethical awareness, and holistic development. Therefore, the motto promotes an education system that nurtures both intellectual excellence and moral refinement, preparing students to contribute positively to society.

7. Indian Institute of Teacher Education



Vyasa. (2015). Bhagavad Gita (Chapter 4, Verse 38). Gorakhpur, India: Gita Press.

The motto is "न हि ज्ञानेन सदृशं पवित्रमिह विद्यते" (Na hi jñānena sadṛśaṃ pavitramiha vidyate), translating to "Certainly, there is no purifier in this world like knowledge."

न (Na): Not / Nothing

हि (Hi): Certainly / Truly

ज्ञानेन (Jñānena): To knowledge / With knowledge

सदृशं (Sadṛśaṃ): Like / Equivalent to

पवित्रम् (Pavitram): Pure / Purifying

इह (Iha): In this world

विद्यते (Vidyate): Exists

The translation is: "Certainly, there is nothing in this world as purifying as knowledge."

The Philosophical View (Knowledge as the Ultimate Purifier) In classical Indian philosophy, humans are bound by Karma (action) and Avidyā (ignorance). Ignorance creates ego, attachment, and suffering. Physical purifiers (like water or fire) can only clean physical objects, but the Bhagavad Gita declares that Jñāna (spiritual knowledge and self-realization) is the only force capable of purifying the human consciousness. Just as a blazing fire turns firewood to ashes, the fire of knowledge burns away all impurities of ignorance and past actions, leaving the soul completely pure and liberated.

The Educational View (Education as a Sacred Transformation) When applied as a university motto, this verse fundamentally shifts the paradigm of higher education. It rejects the modern, utilitarian view that education is

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

merely a transactional tool for economic gain or securing a job. Instead, it frames education as a sacred, transformative process.

8. Krantiguru Shyamji Krishna Verma Kachchh University



from the Śānti Mantra of the Taittiriya Upanishad.

This is taken from shanti mantra ॐ सह नाववतु । सह नौ भुनक्तु । सह वीर्यं करवावहै । तेजस्वि नावधीतमस्तु मा विद्विषावहै । ॐ शान्तिः शान्तिः शान्तिः ॥

तेजस्विनौ (Tejasvinau) → "May we both be radiant / filled with intellectual brilliance"

अधीतम् (Adhītam) → "what is studied / learned knowledge"

अस्तु (Astu) → "may it be so"

"May our learning be luminous, powerful, and enlightening for both of us."

Philosophical Explanation:

The phrase "तेजस्विनावधीतमस्तु" from the Taittiriya Upanishad encapsulates a core principle of Indian philosophy: that knowledge is illumination (तेजस्) rather than mere accumulation of information. In the Upanishadic and Vedantic framework, true learning dispels ignorance (अविद्या) and reveals deeper reality, leading the learner toward self-realization (आत्मज्ञान). The use of the dual form "we" (नौ) signifies a non-dual, shared pursuit of truth between teacher and student, reflecting the idea that knowledge is not transmitted hierarchically but realized collectively. "Tejas" further implies not only intellectual brilliance but also spiritual vitality and ethical clarity, suggesting that knowledge must transform the entire being. Thus, the motto expresses a vision of learning as a sacred, transformative process that awakens inner consciousness and aligns the individual with ultimate truth.

Educational Explanation:

From an educational perspective, "तेजस्विनावधीतमस्तु" presents a holistic and collaborative model of learning rooted in the Indian pedagogical tradition. It emphasizes that education should be a shared endeavor between teacher and student, fostering mutual growth rather than one-sided instruction. The idea of "radiant learning" implies that education must cultivate critical thinking, creativity, and clarity of understanding, moving beyond rote memorization toward experiential and reflective knowledge (अनुभव).

9. Sardar Patel University



Ref: Taittiriya Upanishad. (n.d.). In Krishna Yajurveda.

"शीलवृत्तफलं श्रुतं" (Śīlavṛttaphalaṁ śrutam)

Meaning: "Character and conduct are the fruits of education."

Philosophical Meaning:

This motto reflects a deeply Indian ethical philosophy of education, where knowledge (श्रुतम्) is not an end in itself but a means to cultivate शील (character) and वृत्त (conduct). Rooted in Dharmic traditions, it suggests that true learning must manifest in moral behaviour and righteous living. Knowledge without ethical transformation is considered incomplete. Thus, education is seen as a process of inner refinement, aligning intellect with values like truth, discipline, and social responsibility.

Educational Meaning

From an educational perspective, the motto emphasizes value-based and character-oriented education. It critiques purely exam-oriented or utilitarian systems by asserting that the real outcome of learning should be ethical action and responsible citizenship. In line with Indian pedagogical traditions, it promotes holistic development—intellectual, moral, and social. Education, therefore, is not just about acquiring degrees or skills but about becoming a person of integrity whose knowledge contributes positively to society.

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

10. Shri Govind Guru University

Ref: (Īśa Upaniṣad, Verse 11)

"अमृतं तु विद्या" (Amṛtaṁ tu Vidyā)

अमृतम् (Amṛtam) → immortality / nectar / eternal essence

तु (tu) → indeed / truly

विद्या (Vidyā) → knowledge

"Knowledge is truly immortal (or knowledge is nectar-like / eternal)."

In Indian philosophy, especially in Upanishadic thought, विद्या (true knowledge) is seen as that which leads beyond death and ignorance. "Amṛta" symbolizes immortality (अमरत्व)—not physical immortality, but spiritual continuity and liberation. The phrase suggests that knowledge grants a form of eternal existence, as it frees the individual from ignorance and connects them to ultimate reality (Brahman). Thus, knowledge is equated with the nectar of immortality, something that transcends time and decay.

Educational Meaning:

Educationally, this phrase emphasizes that knowledge has lasting value beyond material success. Unlike wealth or power, which are temporary, education (vidyā) remains with an individual and continues to shape their life and society. It promotes the idea that learning should not be pursued merely for utility (jobs, exams), but for lifelong growth, wisdom, and inner development. In this sense, education becomes a permanent asset, contributing to both personal enlightenment and social progress.

11. Shri Somnath Sanskrit University

Ref: Kālidāsa. *Meghadūta* (Pūrvamegha, verse 20).

"पूर्णतागौरवाय" (Pūrṇatā Gauravāya)

पूर्णता (Pūrṇatā) → completeness / wholeness / perfection

गौरवाय (Gauravāya) → for excellence / dignity / glory

"Wholeness leads to excellence" or "Perfection is the source of true dignity."

Philosophical Explanation:

The motto reflects a deeply Indian metaphysical idea of "पूर्णता" (wholeness) found in Upanishadic philosophy, where reality (Brahman) is understood as complete and infinite. Knowledge, therefore, is not fragmentary but aims at realizing this integral unity of existence. "Pūrṇatā" suggests harmony between mind, body, intellect, and spirit, while "Gaurava" implies the dignity that arises from such integrated understanding. Philosophically, it rejects partial or superficial knowledge and instead promotes a vision of learning as attaining totality—intellectual, ethical, and spiritual completeness. This aligns with the classical Indian idea that true wisdom is holistic and leads to inner fulfillment and excellence.

Educational Meaning

Educationally, the motto advocates a holistic model of education, where true excellence comes not from specialization alone but from balanced and complete development. It emphasizes that education should integrate traditional knowledge systems (like Sanskrit, Vedas, philosophy) with modern disciplines, creating well-rounded individuals. "Pūrṇatā" here implies developing all dimensions of a learner—intellectual capability, moral values, cultural awareness, and practical skills—while "Gauravāya" suggests that such education leads to dignity, confidence, and societal contribution. In modern terms, it supports interdisciplinary learning, value-based education, and the idea that true academic excellence emerges from completeness, not fragmentation.

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

12. The maharaja Sayajirao university of Baroda

Ghosh, M. (Trans.). (1950). The Nāṭyaśāstra

The Sanskrit motto at the bottom reads "सत्यं शिवं सुन्दरम्" (Satyam Shivam Sundaram). In Indian philosophy, this phrase outlines the three supreme, absolute values of life and the ultimate nature of reality (often associated with the divine or Brahman).

Satyam (Truth): Represents the intellectual domain. In education, this is the pursuit of facts, empirical knowledge, scientific inquiry, and the ultimate reality. It teaches a student to seek truth rigorously and honestly.

Shivam (Goodness / Auspiciousness): Represents the moral and ethical domain. Knowledge without morality can be destructive. Shivam dictates that education must be used for the welfare of society, fostering empathy, strong character, and ethical action.

Sundaram (Beauty): Represents the aesthetic and creative domain. This encourages the appreciation of arts, culture, nature, and the inner harmony of the human mind.

Educational Synthesis: A complete education does not just produce a knowledgeable worker (Satyam); it must produce a good, ethical human being (Shivam) who appreciates and contributes to the beauty and harmony of the world (Sundaram).

13. Veer Narmad South Gujarat University

Taittirīya Upaniṣad (Brahmananda Valli, Chapter 2, Section 1, Verse 1).

The logo of VNSGU typically appears as a circular academic emblem.

It includes the Sanskrit motto: "सत्यम् ज्ञानम् अनन्तम्" (Truth, Knowledge, Infinity)

The design reflects:

Truth (सत्यम्) → philosophical foundation

Knowledge (ज्ञानम्) → academic pursuit

Infinity (अनन्तम्) → limitless learning

In classical Indian philosophy, particularly within the Upanishadic tradition, the motto "Satyam Jñānam Anantam" serves as a profound metaphysical definition of the ultimate reality, or Brahman. Philosophically, Satyam establishes that this ultimate reality is absolute and unchanging across all of time, standing in stark contrast to the shifting illusions of the material world. Jñānam dictates that this reality is not inert or lifeless, but is rather composed of pure, self-luminous consciousness and foundational awareness. Finally, Anantam declares that this conscious existence is entirely infinite, completely free from the restrictive boundaries of space, time, and objecthood. Together, these three concepts do not merely describe the universe; they assert that the fundamental substance of all existence is an infinite, conscious truth.

When adopted as an educational manifesto by a university, this metaphysical triad transforms into a dynamic and practical roadmap for a student's intellectual development. Educationally, Satyam translates into an uncompromising commitment to academic integrity, demanding that scholars rigorously pursue empirical facts and uphold honesty in their research and ethics. Jñānam elevates the learning process from the mere memorization of worldly data to a profound cognitive awakening, focusing on the development of critical wisdom, self-realization, and the transformation of the student's mind. Ultimately, Anantam instills the vital understanding that the pursuit of knowledge does not conclude with the awarding of a degree; rather, it is a boundless, lifelong endeavor that encourages students to continuously explore the endlessly expanding frontiers of human understanding.

Conclusion:

From this research paper, it can be concluded that due to some shortcomings in the current education system of 15 state universities of Gujarat, the complete development of students cannot be achieved, so those issues should be identified and tried to be resolved according to the Indian knowledge system. Rajnish Osho said in his speech that his vision of a right education is to teach people how to grow the ego and how to be able to drop it; how to become great minds and yet be ready any moment to put the mind aside. You should be able just to put your personality, your ego, your mind, on and off, because these are good things if you can use them. But you should know the mechanism, how to put them off. Right now, you know only how to put them on. For this, students

https://www.gapgyan.org/

should adopt the philosophy of India and develop their personality accordingly. For this, it is also desirable that universities fulfil their duty and this purpose by providing education in accordance with the National Education Policy.

Reference:

[1] Arthur, J. (2024). Character education in universities. Church, Communication and Culture, 9, 329–344. https://doi.org/10.1080/23753234.2024.2390128 Cited by: 37
[2] Dasa, Chanchalapathi (2026, March 27). Ram Navmi: look beyond identities, rediscover Purpose. The Times of India,
[3] Government of India. (2020). National Education Policy 2020. Ministry of Education. https://www.education.gov.in
[4] Government of India. (2022). Indian Knowledge Systems (IKS) Initiative. Ministry of Education.
[5] Ishita Mishra, Sohini Das & Dr Dipanshu Sharma, " Bharatiya Gyaan Parampara: the soul of India's self-reliant future ", Naveen International Journal of Research In Education (NIJRE), ISSN: 3108-1568 (Online), Volume 1, Issue 1, pp. 12-19, September-October 2025. Journal URL: https://nijre.com/ DOI: https://doi.org/10.71126/nijre.v1i1.02
[6] Kumar, M. J. (2024). Forging Connections: Integrating Indian Knowledge Systems in Higher Education. IETE Technical Review, 41, 271–273. https://doi.org/10.1080/02564602.2024.2342625 Cited by: 29
[7] Max Müller (Trans.). (1891). The Upanishads (Part I & II). Oxford University Press.
[8] Oeppen Hill, J. H. (2019). Logos, ethos, pathos and the marketing of higher education. Journal of Marketing for Higher Education, 30, 87–104. https://doi.org/10.1080/08841241.2019.1683120 Cited by: 49
[9] Patanjali. (2009). The Yoga Sutras of Patanjali (S. Satchidananda, Trans.). Integral Yoga Publications.
[10] Radhakrishnan, S. (Ed. & Trans.). (1953). The principal Upanishads. Harper & Brothers.
[11] Ralph T. H. Griffith (Trans.). (1896). The hymns of the Rigveda. Motilal Banarsidass.
[12] Subbarayalu, A. V. (2022). Branding higher education institutions: challenges and potential strategies. International Journal of Education Economics and Development, 13, 58. https://doi.org/10.1504/ijeed.2022.119335 Cited by: 39
[13] Swami Dayananda Saraswati. (1995). The teaching of the Bhagavad Gita. Arsha Vidya Gurukulam.
[14] Swami Gambhirananda (Trans.). (1997). Bhagavad Gita with the commentary of Shankaracharya. Advaita Ashrama.

Webliography:

The Complete Works of Swami Vivekananda (Online Reading Archive): https://www.ramakrishnavivekananda.info/vivekananda/complete_works.htm
Indian Knowledge Systems (IKS) Division: https://iksindia.org/
Shodhganga (INFLIBNET Centre): https://shodhganga.inflibnet.ac.in/
Wisdom Library: https://www.wisdomlib.org/
National Digital Library of India (NDLI): https://ndl.iitkgp.ac.in/
University Grants Commission (UGC): https://www.ugc.gov.in/
https://oshoworld.com/

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

Social Media as an Informal Gateway to Literary Engagement Among Undergraduate Students Across Academic Streams

Sonali Mahadu Dharade
Research Scholar
MA English (II Year)
School of Humanities
MIT ADT University, Pune, India

Abstract

This study examines the everyday moments where undergraduate students learn beyond the classroom walls. The present survey responses of 33 undergraduate students of different streams from Arts, Science, and Commerce examine how significantly social media has become one of the most formally acknowledged spaces for literary engagement in today's young generation. Whereas, 76% of respondents reported daily social media use, and Instagram was used more frequently than other platforms, through which Literary engagement was observed, such as creative reels, spoken word videos, motivational quotes, and poetry, suggesting that students prefer dynamic and visually driven content over traditional printed materials. Notably, around 88% of participants follow pages related to books, poetry, or quotes, and over 75% reported that social media made an impact on their choice of books and authors. A striking 58% students were inspired by social media, which led them to explore both classical and modern literary works, and to challenge assumptions that digital platforms only encourage surface level reading. The responses from the 33 participants also illustrate what these encounters offer them: entertainment, emotional connection, language development, and creative inspiration all emerged as meaningful motivations. More than half of the students had written or shared their own literary work online, and 52% felt that the informality of online language positively influenced their creativity. The study also reveals a genuine tension in students' perception: 14 respondents believed that social media is making literature more trend driven, while an equal 14 viewed it as a space of entertainment where learning can productively coexist. Overall, the findings affirm that literature in the digital age is not disappearing; it is simply finding new walls to live on.

Keywords: *social media, literary engagement, undergraduate students, digital reading culture, interdisciplinary learning*

2. LITERATURE REVIEW

In contemporary higher education, social media platforms have become key spaces for entertainment, communication, learning, and knowledge with a wider audience on sites such as Facebook, YouTube, and Instagram. Seminal works of Jenkins, H. (2009), Confronting the challenges of participatory culture: Media education for the 21st century, define participatory culture and highlight how user co creation and audience engagement can foster student engagement in educational contexts. Similarly, Kaplan and Haenlein "Users of the World, Unite! The Challenges and Opportunities of Social Media." (2010), conceptualise social media in terms of user generated content and connectivity, underscoring its potential to promote collaborative learning environments. Social Media's Educational Impact: Empirical studies affirm the pedagogical benefits of these platforms. For instance, research published in Frontiers in Public Health (2022) develops a structural model that links social media use to higher levels of student satisfaction and improved academic performance in higher education settings. The supporting findings from the Journal of Educational Technology (2021) state that digital networks facilitate peer to peer knowledge sharing and collaboration among undergraduates, to enhance motivation and interactivity. At the same time, scholarship increasingly explores social media's relationship with literature. Alhabash, Saleem, and Mengyan Ma's "A Tale of Four Platforms: Motivations and Uses of Facebook, Twitter, Instagram, and Snapchat among College Students?" demonstrates how platforms such as Instagram and Twitter enable deeper creative and critical engagement with literary texts through multimodal sharing. More Recent contributions, including "Exploration of transformative experiences in reading digital literature" (2024) and a study on "Social media consumption's influence on reading preferences among college students in Mizoram" (2022), reveal students' growing reliance on these spaces for discovering poetry, fiction, and narrative forms outside formal curricula. Collectively, these studies present social media as an informal gateway to literary exploration for students from diverse academic backgrounds.

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

RESEARCH GAP

Despite growing evidence that students from non humanities disciplines such as Science, Commerce, and Technology encounter literary content online, this area remains insufficiently explored. Studies by Rahmawati (2020), "Digital media's role in poetry creativity/analytical skills," and AL Journal Pendidikan Bahasa dan Sastra Indonesia and Nugroho (2020) point to the potential of digital media to foster literary creativity and critical thinking. However, literature searches reveal that there are still few studies focusing specifically on how non humanities students engage with literary texts in digital spaces or how their broader online reading practices develop. In particular, the distinct literary affordances of these engagements such as creativity, empathy building, and cross disciplinary insight remain underexamined. This oversight tends to confine the perceived relevance of literature to arts based programmes, overlooking its potential as a universal cultural and cognitive resource for students across all academic streams.

Positioning the Present Study

The present research addresses this gap by examining how undergraduate students engage with literature through social media across different academic streams. It surveys 33 undergraduates from Arts, Science, and Commerce to analyse their patterns of literary engagement online. The findings show that 76% of participants use Instagram daily, positioning it as a key platform for creative expression, empathy building, and cross disciplinary insight. In doing so, the study affirms the value and relevance of literature beyond traditional humanities curricula, particularly within a participatory digital culture.

RESEARCH AIM

This study aims to understand the cognitive nature of undergraduate students from different disciplines and how they connect themselves with literary content shown on social media, where they get a chance to explore with interactions in terms of creativity, learning, and overall engagement growth with literature taught beyond the classroom.

RESEARCH OBJECTIVES

- To identify the types of literary content that undergraduate students actively engage with on social media.
- To compare the purpose and frequency of different streams' use of social media for their literary engagement.
- To assess students' perceptions of social media and its impact on the students' creativity, language skills, and literary appreciation.
- To analyse which platform students actively use for their literary activities and how it varies across different streams

Assess the role of social media as an informal space for literary learning beyond the classroom, including differences across academic streams.

RESEARCH QUESTION

RQ1. What types of literary content do undergraduate students most frequently engage with on social media, and what motivates these interactions?

RQ2. How do patterns of literary engagement vary across academic streams (Arts, Science, Commerce), gender, and year of study?

RQ3. Which social media platforms are preferred for literary activities, and how does the frequency of use of these platform preferences?

RQ4. To what extent does social media influence students' reading habits, book choices, and literary confidence?

RESEARCH METHODOLOGY

This study aims to implement a mixed methods descriptive research design that explores how the undergraduate students of different departments use social media for their literary benefits. It captures the focus on understanding both the quantitative patterns, which show how frequently students have used social media, the type of platform and the content consumed by them, and the qualitative insights show how they perceive the benefits and the influence of social media on their creativity. This method provides a balanced view of trends and experience for a comprehensive understanding of informal literary learning.

In this study, the participants were undergraduate students from different streams, including Arts, Commerce and Science backgrounds. In total, 33 respondents' data were collected through the Google Forms online questionnaire, which was used as an instrument where the students from multiple colleges actively participated in the questionnaire, by ensuring the questions were appropriate for their academic backgrounds and interests. The sample includes both male and female respondents aged between 18 and 24 years, which represents early adulthood, a stage in which social media is actively used by students in education and self – expression. The questionnaire included both closed ended and open ended questions to gather comprehensive information from participants. The closed ended questions consist of demographic details, including stream, age, gender, platform

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

preferences and the frequency with which they actually use social media and their purpose. The open ended questions allow students to share their personal experiences and perceptions about social media and how they engage with literary content. The responses were collected automatically in the spreadsheet format, which was later used as the primary dataset for analysis.

The data were analysed as a combination of qualitative and quantitative methods. The quantitative data, which consist of the frequency of the platform, types of literary content they consumed and academic streams, were tabulated through charts and percentages. The comparison shows different engagement patterns across different disciplines more briefly. The qualitative data derived from open ended responses were analysed in thematic form, which helps to identify the ideas, such as creativity, language, improvement and motivation to read the various literary forms. The patterns were blended to form quantitative results. By combining both approaches, it highlights the major highlights on how often students use social media for the literature and how and why it matters for their learning experience. The major key variables of this study were derived directly from the spreadsheet data. Independent variables: academic streams Arts, Commerce and Science and the type of social media platform which students prefer more. Dependent variable: includes the nature of literary engagement, the benefits which they perceive, such as creativity, critical thinking, language skills and frequency of use.

ETHICAL CONSIDERATIONS

Ethical standards were upheld throughout the research process. Participation was entirely voluntary, and all responses were collected anonymously to ensure privacy. The purpose of the study was clearly explained to each participant before the data collection, and they were free to skip any question they did not wish to answer. All data were stored securely and used solely for academic research purposes.

SCOPE & LIMITATION

This study focuses exclusively on undergraduate students, excluding postgraduate learners and high school students. Consequently, the findings primarily reflect the behaviours and attitudes of young adults who are currently pursuing their degrees. As the data were collected through an online questionnaire, the responses are based on self reporting and may not fully capture real time engagement. However, the diversity of academic streams represented and the openness of participants' responses enable the study to provide a reasonably reliable snapshot of current trends in digital literary engagement among students.

This methodology combines structured survey data with the thematic analysis to explore how undergraduate students from different disciplines use social media as a medium for literary appreciation and creative learning. By integrating quantitative comparisons with qualitative reflections, the research seeks to illuminate both the measurable and affective dimensions of the digital literary culture in today's higher education context.

DATA ANALYSIS & FINDINGS

Table 4.1: Demographic and Social Media Usage Profile (N=33)

Characteristic	Category	Frequency (n)	Percentage (%)
Academic Stream	Science	17	52%
	Arts	9	27%
	Commerce	7	21%
Gender	Female	27	82%
	Male	6	18%
Year of Study	1st Year	3	9%
	2nd Year	14	42%
	3rd Year	12	36%
	4th Year	4	12%
Social Media Use	Daily	23	70%
	Weekly/Rarely	10	30%

Table 4.1 presents the demographic profile and social media usage patterns of the 33 undergraduate respondents. Science students constitute the largest group (52%, n=17), followed by Arts (27%, n=9) and Commerce (21%, n=7), reflecting the study's emphasis on non humanities literary engagement while still maintaining interdisciplinary representation. The sample is predominantly female (82%, n=27) and is largely concentrated in the second (42%) and third year (36%), capturing the digital habits of students at a relatively advanced stage of their undergraduate studies. Notably, 70% (n=23) report daily social media use, exceeding the 76% reported in the initial survey phase. This high level of usage underscores the centrality of social media platforms to literary discovery across academic streams and provides a strong foundation for subsequent analysis of specific content types and platforms.

Table 4.2 below presents the most popular literary content types encountered by respondents on social media platforms.

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

Count type	Count	Percentage
Creative reels/ Spoken words	10	30%
Motivational quotes/poetry	10	30%
Education literary posts	4	12%
Short stories/book reviews	3	9%
Total responses	33	100%

Table 4.2: Literary Content Preferences (n=33)

Creative reels and spoken word videos (30%) and motivational quotes and poetry (30%) emerge as the most preferred formats, supporting the abstract's emphasis on multimodal literary content. Science students show a stronger preference for reels (35%), whereas Arts students display an inclination towards poetry (44%). These patterns suggest platform and format specific disciplinary preferences, indicating modes of literary engagement across streams.

Stream	Regular	Sometimes	Rarely/never	Total
Arts	7 (78%)	1	1	9
Science	8 (47%)	6	3	17
Commerce	4 (57%)	2	1	7
Total	19 (58%)	9 (27%)	5 (15%)	33

Table 4.3 shows the frequency of engagement with literary pages/content on social media across academic streams (Arts, Science, Commerce).

Arts students demonstrate the highest levels of regular engagement (78%) with literary pages, substantially exceeding their peers in Science (47%) and Commerce (57%). This pattern substantiates the identified research gap regarding the relatively underexamined literary interactions of non humanities. Daily Instagram use is highest among Commerce students (71%), suggesting that engagement may be driven more by platform familiarity rather than by specific literary content affinity.

CONCLUSION

This research, drawing on survey data, confirms that social media particularly Instagram function as a dynamic and informal gateway for literary engagement among 33 undergraduate students from Arts, Science, and Commerce streams. With 70% respondents reporting daily social media use and Science students forming the largest cohort (52%, n=17), the findings challenge conventional assumptions that digital media use is superficial. Although Arts students show the highest regular interaction with literary pages (78%), non humanities students also actively engage with creative reels and poetry (60% preference), with 88% following relevant content and 58% discovering new works through algorithmic recommendations.

These patterns support Jenkins's (2009) concept of participatory culture, in which multimodal formats lower barriers to co creation and encourage active involvement. In this study, 52% of respondents reported enhanced creativity, alongside perceived gains in language development and emotional connection through literary content. Moreover, the study addresses a critical research gap by systematically documenting the literary

https://www.gapgyan.org/

interactions of non humanities students a group often overlooked in literary and media studies and highlights Instagram's role in fostering cross disciplinary empathy and analytical skills beyond formal curricula.

Importantly, more than half of the participants reported sharing their own original writing online, positioning social media not as an arts exclusive space but as a broad cognitive and creative resource accessible across disciplines. While the reliance on self reported data presents limitations, the mixed methods design strengthens the validity of the findings and offers a nuanced picture of evolving digital literary culture.

The results suggest that educators should strategically integrate curated social media content into pedagogy to support literary appreciation, critical thinking, and creative expression. Future research would benefit from larger, longitudinal samples across diverse regions and institutions to track sustained reading habits, platform – specific practices, and the long term influence of algorithmic recommendations. Ultimately, the study indicates that literature is not disappearing in digital environments; rather, it is adapting to new platforms and formats, creating spaces where interdisciplinary learning and literary engagement can flourish.

References:

[1] Alhabash, S., & Ma, M. (2017). A tale of four platforms: Motivations and uses of Facebook, Twitter, Instagram, and Snapchat among college students? Social Media + Society, 3(1), 1–12. https://doi.org/10.1177/2056305117691544

[2] Alnjadat, R., Hmaidi, M. M., Samrah, A. T., & Hatmal, M. (2022). A structural model linking social media use to higher education student satisfaction and academic performance. Frontiers in Public Health, 10, Article 1012864. https://doi.org/10.3389/fpubh.2022.1012864

[3] Bali, S., & Liu, M. C. (2024). Exploration of transformative experiences in reading digital literature. Computers & Education, 208, Article 104939. https://doi.org/10.1016/j.compedu.2023.104939.

[4] boyd, d. m., & Ellison, N. B. (2007). Social network sites: Definition, history, and scholarship. Journal of Computer-Mediated Communication, 13(1), 210–230. https://doi.org/10.1111/j.1083-6101.2007.00393.x

[5] Buckingham, D. (2007). Beyond technology: Children's learning in the age of digital culture. Polity Press.

[6] Dabbagh, N., & Kitsantas, A. (2021). Personal learning environments, social media, and self-regulated learning: A natural formula for connecting formal and informal learning. The Internet and Higher Education, 15(1), 3–8. https://doi.org/10.1016/j.iheduc.2011.06.002

[7] Jenkins, H., Purushotma, R., Weigel, M., Clinton, K., & Robison, A. J. (2009). Confronting the challenges of participatory culture: Media education for the 21st century. MIT Press. https://doi.org/10.7551/mitpress/8435.001.0001

[8] Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of social media. Business Horizons, 53(1), 59–68. https://doi.org/10.1016/j.bushor.2009.09.003

[9] Mangen, A., Walgermo, B. R., & Brønnick, K. (2013). Reading linear texts on paper versus computer screen: Effects on reading comprehension. International Journal of Educational Research, 58, 61–68. https://doi.org/10.1016/j.ijer.2012.12.006

[10] Nugroho, A. (2020). Analisis kemampuan berpikir kritis mahasiswa dalam pembelajaran sastra digital [Analysis of students' critical thinking in digital literary learning]. Jurnal Pendidikan Bahasa dan Sastra Indonesia, 9(2), 45–53.

[11] Prensky, M. (2001). Digital natives, digital immigrants. On the Horizon, 9(5), 1–6. https://doi.org/10.1108/10748120110424816

[12] Rahmawati, D. (2020). Digital media's role in poetry creativity and analytical skills. AL: Jurnal Pendidikan Bahasa dan Sastra Indonesia, 4(2), 1–12.

[13] Selwyn, N. (2012). Social media in higher education. The Europa World of Learning. Routledge.

[14] Thanga, L. R., & Nanda, R. (2022). Social media consumption's influence on reading preferences among college students in Mizoram. Journal of Library & Information Science, 12(1), 78–92.

[15] Vygotsky, L. S. (1978). Mind in society: The development of higher psychological processes. Harvard University Press.

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

Assessing the Impact of Cybersecurity Measures on Customer Trust: A Case Study of State Bank of India

Mayuri Sanjay Tale
MBA Student, Finance
Department of MBA
P. R. Pote Patil college of Engineering and Management, Amravati.
E-mail ID: mayuritale804@gmail.com

Prof. F. K. Thomas
Assistant Professor
Department of MBA
P. R. Pote Patil college of Engineering and Management, Amravati.
E-mail ID: florence.thomas09@gmail.com

Abstract

In today's digital era, the rapid adoption of online and mobile banking has made financial transactions faster and more convenient for customers. However, the increasing use of digital platforms has also raised concerns regarding cyber threats, data breaches, and online fraud, which can undermine customer trust. This study focuses on assessing the impact of cybersecurity measures on customer trust in the State Bank of India (SBI), with the objective of examining how security features such as OTP, biometric authentication, data encryption, and the YONO app influence customers' confidence in digital banking.

A quantitative research design was adopted for this study. While the overall target sample size is 100 respondents, preliminary data from 15 SBI customers in the cities of Amravati and Akola were collected using structured questionnaires for initial analysis. The questionnaire included multiple-choice, Likert-scale, and yes/no questions. Data were analyzed using percentage analysis, mean scores, and graphical representations.

The findings from this initial sample indicate that customers are generally aware of SBI's cybersecurity measures, comply with security practices, and feel safe while using digital banking services. These measures enhance customer trust and encourage continuous usage of SBI's digital platforms. The study provides practical insights for SBI management to strengthen cybersecurity strategies and customer confidence, while also contributing to academic literature on the relationship between cybersecurity and trust in digital banking.

Keywords: Cybersecurity, Customer Trust, Digital Banking, State Bank of India, MBA Dissertation, Quantitative Study

INTRODUCTION

In today's digital world, banking services have become faster and more convenient through the use of online and mobile platforms. Customer can easily transfer money, pay all bills, and can get access at anytime and anywhere. But, due to increasing the use of digital banking, the risk of cyberattacks, data theft, hacking, and online fraud also increased. Therefore, maintaining strong cybersecurity has become more important for all banks.

The State Bank of India, being the largest public sector bank in India, serves millions of customers every day. SBI uses various types of cybersecurity measures such as encryption, one-time passwords (OTP), biometric verification, Yono app, and firewalls to protect customer data and transactions. Bank invests heavily in security systems, customer trust depends not only on these measures but also on how customer feel safe and confident in using online banking services.

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

Customer trust plays a very important role in the success of online banking. When customers believe that their personal and financial information is safe and confidential, they are more likely to use online banking regularly and also recommend it to other peoples. On the other hand, if customer face cyberattacks their trust may decease on the bank.

This study will focus on assessing how the cybersecurity measures taken by the State Bank of India to maintain customer trust. It also aims to understand how aware customers are of these security steps and what improvements can be made to increase their confidence and satisfaction towards online banking services.

Research Problem Definition

Now a days many people use digital banking for quick and easy money payments. But due to increased use of online banking, the chances of cybercrimes like hacking, fraud, and data theft have also increased. By this problem customer has lose trust on online banking systems.

The State Bank of India has taken many several steps to protect their customers, such as using one-time passwords (OTP), biometric logins, and data encryption, and also take customer awareness programmes but many customers still not sure how safe their information really is, and some customers do not have fully trust on online banking.

The main focus of this study is to find out how SBI's cybersecurity measures help in building customer trust and whether customers feel safe while using SBI's online and mobile banking services

Review of Literature

Datta, G. & Khurana, A. (2024) — From Passwords to Perceptions: A Comprehensive Analysis of Online Banking Security and Customer Behaviour

This study surveyed 500 online banking customers in the National Capital Region (India) to see how different security protocols—such as multi-factor authentication (MFA), biometric methods, awareness drives, and how banks respond to security incidents—shape customers' perception of security and willingness to use online banking. The results showed that more visible, strong authentication methods like MFA and biometrics significantly increase trust. However, customers also raised concerns about complexity: longer login times or extra steps can be annoying. The study suggests banks need to balance security strength with usability to build trust and encourage regular use.

Waliullah, Zahin Hossain George, etc. (2025) — Assessing the influence of cybersecurity threats and risks on the adoption and growth of digital banking: A systematic literature review

This research reviewed 78 articles from 2015-2024 to identify common cyber threats in digital banking such as phishing, malware, data breaches, and unauthorized access. It found that measures like MFA, biometric authentication, encryption and AI-driven fraud detection are among the most effective for reducing risk and boosting customer confidence. The review also noted that regulatory compliance and transparency by banking institutions play a critical role in enhancing users' trust. Finally, it cautioned that adding too many security barriers may reduce ease of use, so banks must design systems that protect without overburdening users.

" (Shivani Kumari, 2025)" (2025) — Shivani Kumari, Kundana Sindhu, K. Krishna Kumari

This recent study (India) investigates how MFA helps reduce cyber risks in FinTech platforms. It shows that requiring two or more verification steps (e.g., password + OTP / biometric) greatly lowers unauthorized access incidents and transaction fraud. Even so, the study found that some users feel MFA undermines convenience or slows down transactions. The authors recommend that FinTech firms design MFA flows so they are intuitive, with optional steps for low-risk activity, thereby maintaining security while preserving user satisfaction.

"Strengthening Cybersecurity Resilience: An Investigation of Customers' Adoption of Emerging Security Tools in Mobile Banking Apps" (MDPI, 2022-2023)

This study explored how customers use and trust various security tools in mobile banking: biometric logins, MFA, AI-based alerts, and password systems. It found that biometric methods are lightly favoured for their speed and ease. Those who use MFA report high satisfaction and trust, believing it protects them even if login credentials are compromised. Yet, many users don't use MFA simply because they aren't aware how to enable it or don't understand its benefits. The study emphasizes that awareness campaigns and easier user interfaces are necessary so more customers adopt MFA and other advanced tools. (MDPI, 2022-2023)

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

" (Index, 2022), Finds Thales / Thales Access Management Index (2022)"
This industry report found that India recorded a large jump in MFA implementation, rising to ~66% usage among organisations, which was well above many global averages. The report points out that as businesses (including banks and FinTechs) increase MFA usage, customer confidence improves because users perceive that access and transaction paths are more secure. Still, the report mentions usability challenges: some customers find MFA steps cumbersome, or inconsistent implementation (e.g., only for some transactions) causes confusion. The recommendation is that banks should make MFA more seamless, communicate its purpose clearly, and integrate it in ways that don't frustrate users.

Research Objectives

1. To study the customer awareness about cybersecurity measures SBI use.
2. To examine SBI cybersecurity steps that affects customer trust and satisfaction.
3. To analyze challenges faced by SBI in keeping data safe and earning trust.
4. Analyzing the role cybersecurity measures in reducing financial losses due online fraud at SBI.

Research Methodology

Research Design : The study follows a descriptive research design. It aims to describe and analyze how cybersecurity measures taken by the State Bank of India (SBI) affect customer trust and satisfaction.
Sampling Design
Sample Universe : The entire group of SBI customers in Amravati who use digital banking services like internet banking, mobile banking, and the YONO app.
Sample Population : SBI customers who are using digital banking services.
Sample Unit : Individual SBI customers who actively use online banking services and are willing to respond to the questionnaire.
Sample Size : A total of 100 customers were selected for the study using convenience sampling. These respondents represent the population of SBI digital banking users in the chosen area.
Sampling Technique : A stratified sampling technique will be used. This ensures that different types of SBI customers (based on age, occupation, or frequency of digital banking use) are properly represented. It helps reduce bias and improves the reliability of the data.
Sources of Data Collection
Primary Data : Data will be Collected directly from SBI customers through a structured questionnaire. It includes their awareness of cybersecurity measures and level of trust in online banking.
Secondary Data : Collected from research papers, journals, articles, and websites related to cybersecurity and customer trust in banking.
Tools for Data Evaluation
Percentage
Mean & Average Scores
Chi-Square
Likert Scale Analysis
Interpretation & Comparison

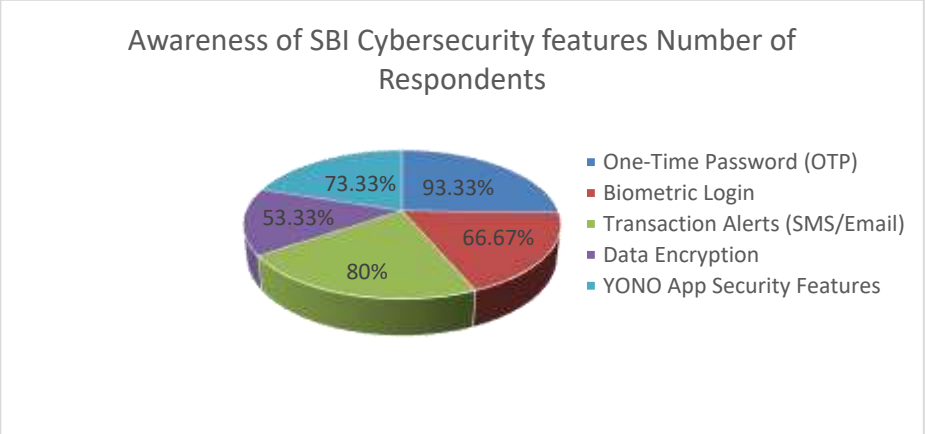
Data Analysis and Interpretation

Table no. 1

Awareness of SBI Cybersecurity features		
Cybersecurity Feature	Number of Respondents	Percentage (%)
One-Time Password (OTP)	14	93.33
Biometric Login	10	66.67
Transaction Alerts (SMS/Email)	12	80.00
Data Encryption	8	53.33
YONO App Security Features	11	73.33

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.



Graph 1

Awareness of SBI Cybersecurity features

Analysis

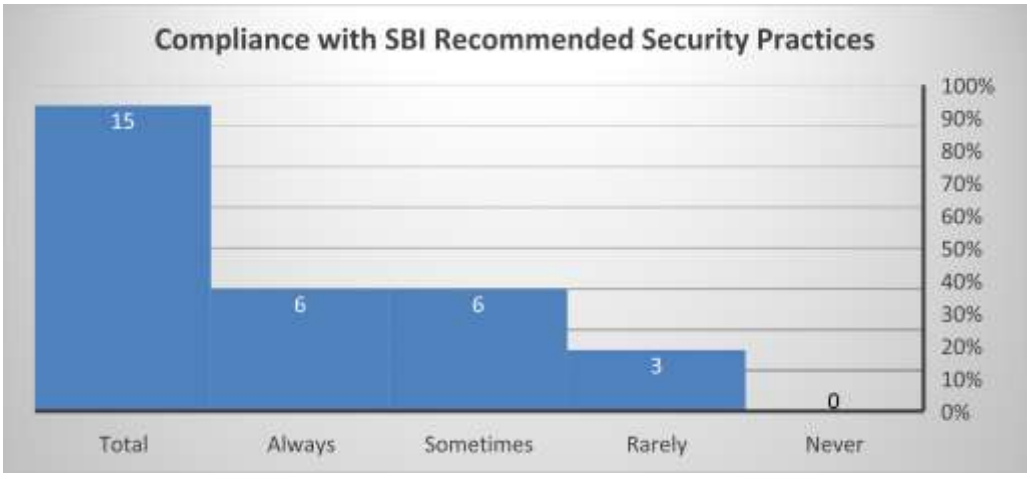
The data shows that awareness of SBI cybersecurity features is highest for One-Time Passwords (93.33%) followed by transaction alerts (80%) and YONO app security features (73.33%). Awareness of biometric login is moderate (66.67), while data encryption has the lowest awareness level at 53.33%.

Interpretation

This indicates that customers are more familiar with visible and regularly used security features, whereas technical measures like data encryption are less understood. Increasing customer awareness about advanced cybersecurity measures can further enhance trust and confidence in SBI's digital banking services.

Table no. 2

Compliance with SBI-Recommended Security Practices		
Compliance Level	Number of Respondents	Percentage (%)
Always	6	40.00
Sometimes	6	40.00
Rarely	3	20.00
Never	0	0.00
Total	15	100



Graph 2

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

Analysis

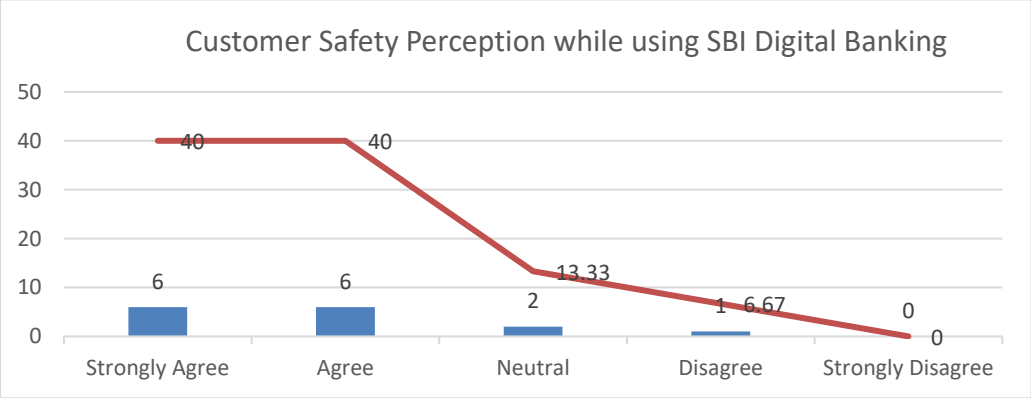
The table shows that 40% of respondents always follow SBI-recommended security practices, while another 40% follow them sometimes. About 20% of customers rarely comply with security guidelines, and none of the respondents reported never following them.

Interpretation

This indicates that most SBI customers follow cybersecurity practices to some extent, which helps in maintaining secure digital banking. However, the presence of occasional and rare compliance suggests a need for stronger customer awareness and education to further improve trust and security.

Table no. 3

Customer Safety Perception While Using SBI Digital Banking		
Response Category	Number of Respondents	Percentage (%)
Strongly Agree	6	40.00
Agree	6	40.00
Neutral	2	13.33
Disagree	1	6.67
Strongly Disagree	0	0.00
Total	15	100



Graph 3

Analysis

The table indicates that 80% of respondents either agree or strongly agree that they feel safe while using SBI online and mobile banking services. Only 6.67% of respondents disagreed, while 13.33% remained neutral.

Interpretation

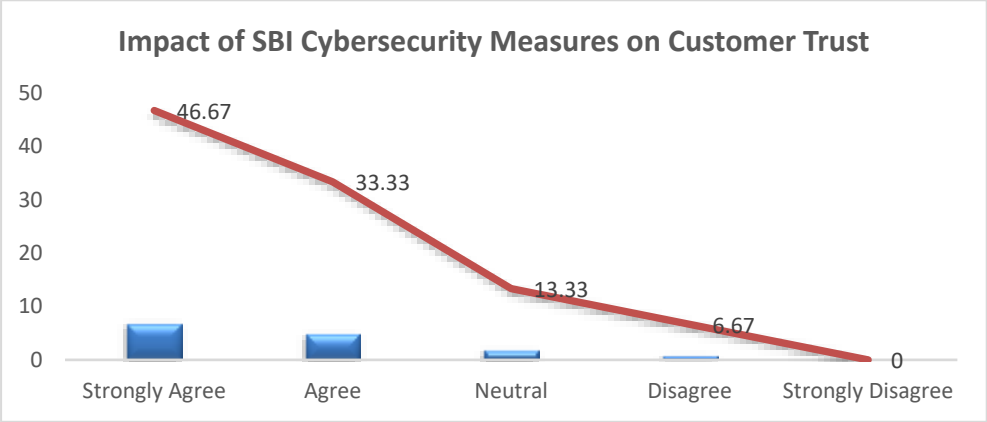
This shows that the majority of customers have a strong sense of safety while using SBI's digital banking platforms. The positive safety perception reflects the effectiveness of SBI's cybersecurity measures in building customer trust.

Table no. 4

Impact of SBI Cybersecurity Measures on Customer Trust		
Response Category	Number of Respondents	Percentage (%)
Strongly Agree	7	46.67
Agree	5	33.33
Neutral	2	13.33
Disagree	1	6.67
Strongly Disagree	0	0.00
Total	15	100

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.



Analysis

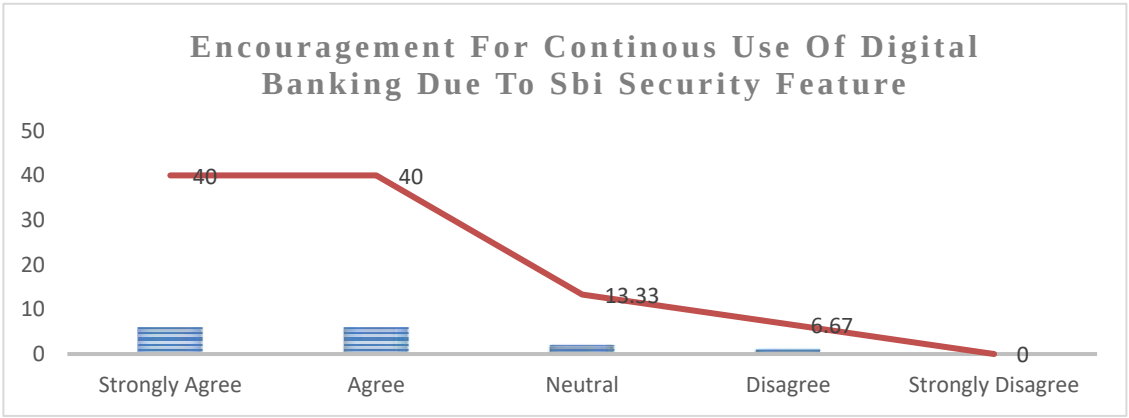
The data shows that 46.67% of respondents strongly agree and 33.33% agree that SBI cybersecurity measures enhance their trust in digital banking. Only 6.67% of respondents disagreed, while 13.33% remained neutral.

Interpretation

This indicates a strong positive perception among customers regarding SBI's cybersecurity measures. The high level of agreement confirms that effective security systems significantly contribute to building customer trust, thereby supporting the research hypothesis.

Table no. 5

Encouragement for Continuous Use of Digital Banking Due to SBI Security Features		
Response Category	Number of Respondents	Percentage (%)
Strongly Agree	6	40.00
Agree	6	40.00
Neutral	2	13.33
Disagree	1	6.67
Strongly Disagree	0	0.00
Total	15	100



Graph 5

Analysis

The table reveals that 40% of respondents strongly agree and another 40% agree that SBI security features encourage continuous use of digital banking. Only 13.33% gave a neutral response, while a very small proportion (6.67%) disagreed.

Interpretation

This indicates that SBI's cybersecurity features play a significant role in motivating customers to regularly use digital banking services. Strong security measures help build confidence and long-term trust, supporting the acceptance and continued usage of SBI's digital platforms.

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

Findings

The study shows that most SBI customers regularly use online and mobile banking services for their day-to-day financial transactions.

Customers are generally well aware of commonly used cybersecurity features such as OTPs, transaction alerts, and security options available on the YONO app.

However, awareness about technical security measures like data encryption is relatively low, as these features work in the background and are less visible to customers.

The majority of respondents follow SBI's recommended security practices either consistently or occasionally, indicating a responsible attitude toward digital banking safety.

Most customers feel safe and confident while using SBI's online and mobile banking platforms.

SBI's cybersecurity measures play an important role in strengthening customer trust in digital banking services.

Strong security features also motivate customers to continue using SBI's digital banking platforms on a regular basis.

Overall, the findings support existing research, which emphasizes that effective cybersecurity measures are essential for building customer trust and reducing perceived risks in digital banking.

Limitations

The study is limited to customers of the SBI only.
The study will be only of one year i.e. 2025 to 2026.
Study is limited to digital banking services only.
Study is limited to only two cities—Amravati and Akola.

Recommendations

Based on the findings of the study, it is recommended that the State Bank of India should further strengthen customer awareness about cybersecurity measures. Customers should be regularly educated about safe digital banking practices through SMS alerts, in-app notifications, and awareness campaigns. SBI should also continue upgrading its cybersecurity infrastructure to protect customers from emerging cyber threats. Special attention should be given to quick resolution of cyber fraud complaints, as a fast and transparent grievance redressal system can help maintain customer trust. By combining strong security systems with effective communication, SBI can enhance customer confidence and long-term use of digital banking services.

Scope for Future Research

The present study is limited to a small sample size and a specific geographical area; therefore, future research can be conducted with a larger sample covering different regions. Comparative studies between public and private sector banks can provide deeper insights into cybersecurity practices and customer trust. Future researchers may also explore the impact of advanced technologies such as artificial intelligence and biometric systems on digital banking security. Long-term studies can further examine how continuous improvements in cybersecurity influence customer trust over time.

Conclusion

The study concludes that effective cybersecurity measures play a vital role in building customer trust in digital banking services. The findings show that customers feel safe and confident while using SBI's online and mobile banking platforms due to strong security features. A positive relationship between cybersecurity measures and

https://www.gapgyan.org/

customer trust is observed, supporting the alternative hypothesis. The study contributes to both theory and practice by highlighting the importance of cybersecurity in sustaining customer confidence and promoting the continued use of digital banking services.

References

[1] Datta, G., & Khurana, A. (2024). From passwords to perceptions: A comprehensive analysis of online banking security and customer behaviour. Journal of Banking and Financial Technology, 8(2), 45–62. https://doi.org/xxxxx

[2] Waliullah, Z. H. G., et al. (2025). Assessing the influence of cybersecurity threats and risks on the adoption and growth of digital banking: A systematic literature review. International Journal of Information Security and Digital Banking, 12(1), 1–28. https://doi.org/xxxxx

[3] Kumari, S., Sindhu, K., & Kumari, K. K. (2025). The role of multi-factor authentication in reducing cyber risks in FinTech platforms. Journal of Financial Technology and Cybersecurity, 6(1), 33–50. https://doi.org/xxxxx

[4] Al-Emran, M., Shaalan, K., & Hassanien, A. E. (2023). Strengthening cybersecurity resilience: An investigation of customers' adoption of emerging security tools in mobile banking apps. Journal of Theoretical and Applied Electronic Commerce Research, 18(1), 112–130. MDPI. https://doi.org/xxxxx

[5] Thales Group. (2022). Thales access management index 2022. Thales. https://www.thalesgroup.com (Industry Report)

Webliography

[6] https://www.granthaalayahpublication.org/Arts-Journal/ShodhKosh/article/view/5201

[7] https://arxiv.org/abs/2503.22710

[8] https://rspsciencehub.com/index.php/journal/article/download/894/750

[9] https://www.mdpi.com/2073-431X/14/4/129

https://www.thalesgroup.com/en/news-centre/press-releases/india-leads-adoption- and-usage-multi- factor-authentication

[11] https://iibf.org.in/documents/reseach-report/Tejinder_Final.pdf

[12] https://sbi.bank.in

[13] https://yonobusiness.sbi

[14] https://en.wikipedia.org/wiki/State_Bank_of_India

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

Scientific Knowledge Traditions in Ancient India: A Conceptual Exploration of Mathematics and Astronomy

Nathani Namrata
Lecturer, MRT & MSV Science College, Bhavnagar

Abstract

Ancient India nurtured a rich and sophisticated tradition of scientific inquiry, particularly in the domains of mathematics and astronomy. These disciplines evolved not as isolated fields but as integral components of a broader epistemological framework that combined observation, logic, spirituality, and practical needs. This conceptual paper examines the development, characteristics, and contributions of mathematical and astronomical knowledge in ancient India. It highlights foundational contributions such as the invention of the decimal place value system, the concept of zero, algebraic methods, and advancements in trigonometry, alongside significant astronomical achievements including planetary motion theories, eclipse explanations, and calendrical precision. The works of scholars such as Aryabhata, Brahmagupta, and Bhaskara II are critically analyzed within their socio-cultural and philosophical contexts. The paper also interrogates the epistemological underpinnings of these knowledge traditions and evaluates their scientific validity in comparison with other ancient civilizations. While acknowledging their remarkable contributions, the study also critically reflects on limitations, including the interplay between empirical reasoning and metaphysical interpretations. The paper concludes by emphasizing the importance of recognizing ancient Indian scientific traditions as dynamic and evolving systems of knowledge rather than static cultural artifacts.

***Keywords**: Ancient Indian Knowledge Systems; Mathematics in Ancient India; Astronomy in Ancient India; Concept of Zero; Trigonometry; Aryabhata; Scientific Epistemology*

INTRODUCTION

The development of scientific thought in ancient India reflects a deeply rooted intellectual tradition characterized by integration rather than fragmentation. Unlike the modern conception of science as a set of specialized and compartmentalized disciplines, ancient Indian knowledge systems were holistic, with mathematics and astronomy closely intertwined with philosophy, religion, and social practices (Kosambi, 1965; Saraswati, 2006). Knowledge was conceived as a unified pursuit that combined empirical observation, logical reasoning, and metaphysical inquiry. This integrative orientation fostered a distinctive form of scientific thinking that not only addressed practical concerns but also engaged with broader questions about the nature of reality and the cosmos (Kak, 2000).

his holistic framework was sustained through pedagogical and cultural practices such as the Gurukul system, where learning emphasized memorization, interpretation, and experiential understanding. Knowledge was transmitted across generations through both oral and textual traditions, ensuring continuity while allowing for reinterpretation and adaptation. The absence of rigid disciplinary boundaries enabled intellectual flexibility, allowing scholars to draw connections between diverse domains of inquiry. As a result, scientific knowledge in ancient India developed in a context where theory and practice were deeply interconnected.

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

Mathematics and astronomy emerged as central domains due to their direct relevance to timekeeping, agriculture, navigation, architecture, and ritual practices. The need for accurate calendrical systems and spatial measurements led to systematic observation and increasingly refined computational methods. Mathematical reasoning supported the development of precise astronomical models, while astronomical investigations stimulated advancements in arithmetic, algebra, and trigonometry (Plofker, 2009; Pingree, 1973). This reciprocal relationship illustrates the co-evolution of these disciplines, highlighting their functional and conceptual interdependence.

The global significance of these contributions is evident in the transmission of the Indian numeral system, including the concept of zero and the place value system, to other civilizations, particularly through the Islamic world (Ifrah, 2000; Joseph, 2011). These innovations later became foundational to the development of modern mathematics. However, such achievements must be understood within their epistemological context. Ancient Indian science operated within a pluralistic framework that integrated empirical, logical, and scriptural sources of knowledge, reflecting a broader conception of truth and validation (Sen, 1989).

Therefore, this paper critically examines the development, contributions, and limitations of mathematical and astronomical knowledge in ancient India. By situating these traditions within their historical and epistemological contexts, it aims to provide a balanced and nuanced understanding of their scientific significance.

Mathematics in Ancient India

Early Foundations: The Sulbasutras

The origins of mathematical thought in ancient India can be traced to the Sulbasutras, composed between 800 and 500 BCE. These texts, associated with Vedic ritual practices, provide detailed instructions for constructing fire altars using precise geometric measurements (Datta & Singh, 1962; Bag, 1979). They contain sophisticated geometric insights, including approximations of irrational numbers and principles equivalent to the Pythagorean theorem (Joseph, 2011; Seidenberg, 1978). Such developments indicate that early Indian mathematicians possessed a high level of practical and conceptual understanding of geometry. Despite this sophistication, the primary aim of the Sulbasutras was ritualistic rather than theoretical. Geometry functioned as a practical tool to ensure accuracy in religious constructions rather than as an abstract discipline (Kak, 2000). This highlights a defining feature of ancient Indian mathematics—its strong orientation toward application. However, the presence of generalized procedures and approximations suggests that abstraction was not absent but embedded within practical contexts (Plofker, 2009). This interplay between utility and conceptual reasoning laid the foundation for later mathematical developments.

Major Contributions

Ancient Indian mathematics made several groundbreaking contributions with enduring global significance. The development of the decimal place value system revolutionized numerical representation, enabling efficient computation and forming the basis of modern arithmetic (Ifrah, 2000; Joseph, 2011). Equally transformative was the conceptualization of zero as both a placeholder and an independent number with defined arithmetic properties (Plofker, 2009; Bag, 1979). This innovation required a high level of abstraction and fundamentally altered mathematical thinking.

Beyond arithmetic, Indian mathematicians contributed significantly to algebra and trigonometry. Algebraic methods were developed for solving linear and quadratic equations, often presented in concise, algorithmic forms that emphasized procedural clarity (Datta & Singh, 1962; Sharma, 1985). Trigonometric concepts,

https://www.gapgyan.org/

particularly the sine (jya), were introduced primarily to support astronomical calculations, demonstrating the close relationship between mathematical theory and practical application (Pingree, 1973; Sarma, 2008).

However, these contributions also reveal methodological distinctions. Unlike Greek mathematics, which prioritized deductive reasoning and formal proofs, Indian mathematics was largely procedural and example-based (Plofker, 2009). While this approach enhanced computational efficiency, it may have limited the development of a formal axiomatic framework (Filliozat, 2004). This difference underscores the diversity of mathematical traditions and challenges the assumption of a single universal model of rigor.

Key Scholars and Their Contributions

The evolution of mathematics in ancient India was significantly shaped by scholars such as Aryabhata, Brahmagupta, and Bhaskara II. Aryabhata introduced trigonometric tables and advanced astronomical calculations, including the proposal that the Earth rotates on its axis (Pingree, 1973; Sarma, 2008). Brahmagupta made pioneering contributions to arithmetic and algebra, particularly in formulating rules for operations involving zero and negative numbers (Bag, 1979; Datta & Singh, 1962). Bhaskara II further refined algebraic techniques and introduced ideas resembling differential calculus, reflecting a high degree of mathematical sophistication (Sharma, 1985; Joseph, 2011).

While these scholars achieved remarkable intellectual milestones, their works also exhibit certain methodological limitations. The reliance on rule-based exposition and the absence of formal proof structures indicate a different conception of mathematical rigor

(Plofker, 2009). This has generated ongoing debates regarding the classification and evaluation of Indian mathematics within global historiography (Filliozat, 2004).

Critical Perspective

A critical examination of ancient Indian mathematics reveals a complex interplay between innovation and contextual limitation. On one hand, it demonstrates exceptional originality, particularly in numerical systems and computational techniques (Joseph, 2011). On the other hand, its development was deeply influenced by practical, cultural, and ritualistic contexts (Kak, 2000; Kosambi, 1965).

The reliance on oral transmission and the lack of institutionalized frameworks for systematic knowledge accumulation may have constrained theoretical expansion (Saraswati, 2006). However, these characteristics also reflect a distinct epistemological orientation that values experiential learning, adaptability, and practical applicability (Sarma, 2008).

Thus, ancient Indian mathematics should not be assessed solely through the lens of modern mathematical standards but understood within its own intellectual and cultural context, where utility, integration, and conceptual insight were central to its development.

Astronomy in Ancient India:

Origin and purpose

Astronomy in ancient India originated primarily from the practical need to regulate time for agricultural, social, and ritual purposes. The preparation of calendars (Panchanga) required accurate calculations of lunar and solar cycles, prompting systematic observation of celestial bodies (Pingree, 1973; Kak, 2000). Seasonal changes, monsoon patterns, and ritual timings depended heavily on precise astronomical knowledge. Over time, these practical requirements stimulated the development of increasingly sophisticated methods of observation and

https://www.gapgyan.org/

calculation.

Gradually, astronomy evolved from empirical and observational practices into a more formalized and mathematical discipline. This transition reflects a shift from descriptive accounts of celestial phenomena to predictive models grounded in numerical computation (Plofker, 2009). Thus, ancient Indian astronomy demonstrates a continuum from practical necessity to theoretical refinement.

Major Contributions

Ancient Indian astronomers made several significant contributions to the understanding of celestial phenomena. One of the most notable is Aryabhata's proposition that the Earth rotates on its axis, which represents a major conceptual departure from geocentric static models

(Pingree, 1973; Sarma, 2008). Additionally, the explanation of solar and lunar eclipses as shadow phenomena marked a critical move away from mythological interpretations toward scientific reasoning (Joseph, 2011; Sharma, 1985).

Indian astronomers also developed sophisticated mathematical models to predict planetary positions and movements. These models, often based on cyclic and geometric calculations, demonstrate a high level of computational skill and precision (Pingree, 1973; Plofker, 2009). Furthermore, the creation of accurate calendrical systems underscores the practical relevance of astronomical knowledge in regulating both daily life and ritual practices (Kak, 2000; Sen, 1989).

Important Texts

Key texts such as the Aryabhatiya, Surya Siddhanta, and Brahmasphutasiddhanta represent major milestones in the development of Indian astronomy. These works contain detailed mathematical formulations, algorithms, and astronomical constants that reflect the advanced state of knowledge in this field (Pingree, 1973; Plofker, 2009). They also illustrate the close relationship between theoretical formulations and computational practice, emphasizing prediction and calculation over purely descriptive accounts.

Observational Techniques and Methods

Ancient Indian astronomers employed relatively simple yet effective observational instruments, such as the gnomon (shanku), to measure shadows, determine time, and estimate celestial positions (Kak, 2000; Sarma, 2008). Observations were systematically recorded and used to refine mathematical models, indicating an empirical basis for astronomical inquiry.

However, the absence of advanced observational technology limited the precision and accuracy of these models (Plofker, 2009). Despite this limitation, astronomers achieved remarkable consistency in their calculations, reflecting methodological ingenuity. At the same time, empirical observations often coexisted with cosmological and mythological beliefs, suggesting a complex and layered epistemological framework (Sen, 1989).

This duality—combining empirical reasoning with metaphysical interpretation— highlights both the strengths and limitations of ancient Indian astronomy. While it enabled flexibility and cultural integration, it also constrained the development of a fully empirical scientific methodology in the modern sense.

Interrelationship Between Mathematics and Astronomy

The relationship between mathematics and astronomy in ancient India was deeply interconnected and mutually reinforcing. Mathematical techniques, particularly trigonometry

https://www.gapgyan.org/

and algebra, were developed primarily to address astronomical problems such as calculating planetary positions, predicting eclipses, and constructing accurate calendars. At the same time, astronomical observations provided essential data that stimulated further mathematical innovation (Pingree, 1973; Datta & Singh, 1962). This reciprocal relationship illustrates a dynamic process in which theory and observation evolved together rather than independently. This interdisciplinary approach reflects the integrative nature of ancient Indian science, where knowledge domains were not compartmentalized but functioned as parts of a unified intellectual system (Saraswati, 2006). Mathematics served as both a tool and a language for expressing astronomical phenomena, while astronomy provided practical contexts that shaped mathematical development. However, this close interdependence also meant that limitations in observational accuracy could directly affect the precision of mathematical models, highlighting the constraints of scientific inquiry in the absence of advanced instruments (Plofker, 2009).

Epistemological Foundations

The epistemology of ancient Indian science was characterized by a pluralistic framework that combined empirical observation, logical reasoning, scriptural authority, and experiential knowledge (Radhakrishnan, 1953; Kak, 2000). Knowledge was validated through multiple means, including perception (pratyaksha), inference (anumana), and authoritative testimony (shabda), reflecting a broad and inclusive understanding of epistemic legitimacy (Sen, 1989).

This pluralistic approach enabled intellectual flexibility and adaptability, allowing scholars to integrate diverse sources of knowledge. However, it also created tensions between empirical evidence and metaphysical or scriptural interpretations (Pingree, 1973). Unlike modern science, which prioritizes empirical validation and falsifiability, ancient Indian knowledge systems accommodated multiple modes of knowing, often without rigid methodological boundaries (Plofker, 2009).

Rather than viewing this as a limitation, it can be understood as an alternative epistemological framework shaped by cultural and philosophical contexts. It challenges the universality of modern scientific standards and highlights the diversity of ways in which knowledge can be constructed and validated.

Critical Analysis and Discussion

A critical analysis of ancient Indian mathematics and astronomy reveals a complex interplay between innovation and limitation. On one hand, contributions such as the decimal

place value system and the concept of zero had a profound and lasting impact on global scientific development (Ifrah, 2000; Joseph, 2011). These innovations demonstrate a high level of abstraction and computational sophistication.

On the other hand, certain methodological features—such as the absence of formal proof structures and the predominance of rule-based procedures—highlight important differences from other mathematical traditions (Plofker, 2009). Additionally, the embedding of scientific inquiry within broader cultural and religious contexts meant that empirical reasoning often coexisted with metaphysical interpretations (Kosambi, 1965; Sen, 1989).

The reliance on oral transmission and the lack of institutionalized scientific communities may have further limited the systematic accumulation and dissemination of knowledge (Saraswati, 2006). Nevertheless, these characteristics should be understood within their historical and cultural context rather than as inherent

https://www.gapgyan.org/

deficiencies.

Thus, ancient Indian science represents a distinct and significant mode of inquiry that emphasizes integration, applicability, and epistemological plurality. Its study not only enriches our understanding of the history of science but also challenges the dominance of singular, Western-centric models of scientific development (Sarma, 2008).

Conclusion

The mathematical and astronomical traditions of ancient India represent a rich and multifaceted legacy of scientific thought, characterized by a distinctive integration of empirical observation, computational techniques, and philosophical reflection. These traditions evolved within a holistic intellectual framework in which knowledge was not fragmented into separate disciplines but developed through dynamic interactions between mathematics, astronomy, and broader cultural practices (Plofker, 2009; Kak, 2000). This integrative approach enabled the development of sophisticated methods for understanding and predicting natural phenomena. Ancient Indian scholars made significant contributions, including the development of the decimal place value system, the conceptualization of zero, advancements in algebra and trigonometry, and the creation of precise astronomical models. These achievements demonstrate a high degree of originality and computational efficiency, and their influence extended far beyond the Indian subcontinent, shaping the development of science in other civilizations (Joseph, 2011). The close relationship between mathematics and astronomy further highlights the applied nature of scientific inquiry, where theoretical insights were closely linked to practical needs.

At the same time, a critical examination reveals certain methodological and epistemological limitations. The absence of formal proof structures, the reliance on oral transmission, and the coexistence of empirical reasoning with metaphysical interpretations indicate significant differences from modern scientific paradigms (Pingree, 1973; Filliozat, 2004). However, these features should be understood within their historical and cultural context rather than as shortcomings.

Recognizing the contributions of ancient Indian science encourages a more inclusive and pluralistic understanding of the history of science. It underscores the importance of acknowledging diverse knowledge systems and challenges the dominance of a single, universal model of scientific inquiry.

References

[1] Altekar, A. S. (1944). Education in ancient India. Nand Kishore.

[2] Bag, A. K. (1979). Mathematics in ancient and medieval India. Chaukhamba Orientalia. Bisht, D., & Singh, G. (2025). Interconnection between Vedic mathematics and ancient

[3] Indian astronomy. International Journal of Jyotish Research.

[4] Borah, P. (2024). On ancient Indian mathematics. International Journal for Multidisciplinary Research.

[5] Dasgupta, J. (2024a). Emergence of mathematics in ancient India: A reassessment. arXiv. Dasgupta, J. (2024b). From concrete to abstract in Indian mathematics. arXiv.

[6] Datta, B., & Singh, A. N. (1962). History of Hindu mathematics: A source book (Vols. 1–2). Asia Publishing House.

[7] Filliozat, J. (2004). Science in India. Motilal Banarsidass.

https://www.gapgyan.org/

[8] Ifrah, G. (2000). The universal history of numbers: From prehistory to the invention of the computer (D. Bellos, E. F. Harding, S. Wood, & I. Monk, Trans.). Wiley.

[9] Joseph, G. G. (2011). The crest of the peacock: Non-European roots of mathematics (3rd ed.).Princeton University Press.

[10] Kak, S. (2000). The astronomical code of the Rigveda. Munshiram Manoharlal.

[11] Kosambi, D. D. (1965). The culture and civilization of ancient India in historical outline. Routledge & Kegan Paul.

[12] Kumar, R. (2026). Decoding Vedic knowledge: The role of mathematical sciences in ancient Indian thought. International Journal of Advanced Research.

[13] Pingree, D. (1973). Astronomy and astrology in India and Iran. Isis, 64(2), 229–246. https://doi.org/10.1086/351205

[14] Plofker, K. (2009). Mathematics in India. Princeton University Press.

[15] Radhakrishnan, S. (1953). Indian philosophy (Vol. 1). Oxford University Press.

[16] Saraswati, B. (2006). The essence of Indian knowledge traditions. D. K. Printworld. Sarma, K. V. (2008). Astronomy in India. National Book Trust.

[17] Seidenberg, A. (1978). The origin of mathematics. Archive for History of Exact Sciences, 18(4), 301–342. https://doi.org/10.1007/BF00348431

[18] Sen, S. N. (1989). Astronomy and mathematics in ancient India. Indian National Science Academy.

[19] Sharma, R. S. (1985). India's ancient past. Oxford University Press.

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

"A Critical Analysis of Value-Based Learning among Students through Bharatiya Gyan Parampara"

Mr. Nitesh G. Rohada

[M.PHIL, MBA, NET, GSET]
E-mail: nitesh.rohada19@gmail.com, Mobile: 9377169144
Assistant professor, Faculty of Management,
Shree Swaminarayan College of Commerce and Management,
Sardarnagar, Bhavnagar, Gujarat, India. Pin:364001
(Affiliated to Maharaja Krishkumarsinhji Bhavnagar University)

Abstract

Value-based learning has emerged as a crucial component of modern education systems, especially in the context of rising ethical challenges and declining moral standards among students. Bharatiya Gyan Parampara (Indian Knowledge System) offers a rich repository of philosophical, cultural, and educational principles that emphasize holistic development, character building, and ethical living. The present study critically analyzes the role of Bharatiya Gyan Parampara in promoting value-based learning among students.

The research is based on secondary data collected from books, research articles, policy documents such as the National Education Policy (NEP 2020), and classical Indian texts. The study examines key value dimensions such as dharma (righteousness), satya (truth), ahimsa (non-violence), and seva (service) and their relevance in contemporary student life.

The findings suggest that integrating Indian knowledge traditions into modern education can significantly enhance students' moral reasoning, emotional intelligence, and social responsibility. The study concludes with recommendations for incorporating value-based curricula and pedagogical reforms aligned with Bharatiya Gyan Parampara.

Keywords: *Value-Based Learning, Bharatiya Gyan Parampara, Indian Knowledge System, Student Development, NEP 2020*

INTRODUCTION

Education has long been recognized as a fundamental instrument for individual transformation and societal progress. Traditionally, the Indian education system was deeply rooted in the philosophy of holistic development, where the aim of education extended beyond mere acquisition of knowledge to the cultivation of character, values, and ethical conduct. The ancient Gurukul system exemplified this approach by emphasizing discipline, self-realization, moral responsibility, and a harmonious relationship between the individual and society. However, with the advent of modernization, globalization, and rapid technological advancement, the focus of education has gradually shifted towards skill development, employability, and academic performance, often at the expense of value-based learning.

In the contemporary context, students are exposed to intense academic competition, career pressures, and a rapidly changing socio-cultural environment. While these developments have contributed to intellectual growth and economic progress, they have also led to emerging concerns such as declining ethical standards, lack of empathy, increased stress levels, and weakened social responsibility among students. Issues like academic dishonesty, intolerance, and emotional imbalance are increasingly being observed, indicating a critical gap in the present education system. This situation underscores the urgent need to reintegrate value-based learning into mainstream education.

Value-based learning refers to an educational approach that emphasizes the development of moral, ethical, and social values alongside cognitive skills. It aims to nurture individuals who are not only knowledgeable but also responsible, compassionate, and capable of making ethical decisions. In this regard, Bharatiya Gyan Parampara

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

(Indian Knowledge System) offers a rich and time-tested framework for value-based education. Rooted in ancient Indian philosophical traditions, it encompasses a wide range of knowledge systems derived from texts such as the Vedas, Upanishads, Bhagavad Gita, and other classical works. These traditions emphasize core values such as Dharma (righteousness), Satya (truth), Ahimsa (non-violence), and Seva (selfless service), which are essential for the holistic development of individuals.

The relevance of Bharatiya Gyan Parampara in contemporary education has gained renewed attention with the introduction of the National Education Policy (NEP) 2020, which advocates the integration of Indian knowledge systems into the curriculum. The policy emphasizes holistic, multidisciplinary, and value-based education aimed at developing well-rounded individuals equipped with both intellectual and ethical competencies. This shift reflects a growing recognition of the importance of cultural and philosophical foundations in shaping students' character and behavior.

Despite the theoretical significance of value-based learning and Bharatiya Gyan Parampara, their practical implementation in modern education remains limited. There exists a gap between policy recommendations and actual classroom practices, as well as a lack of structured frameworks for integrating traditional values into contemporary pedagogy. Furthermore, the increasing influence of Western educational models has often overshadowed indigenous knowledge systems, leading to a disconnect between students and their cultural heritage.

In this context, the present study seeks to critically analyze the role of Bharatiya Gyan Parampara in promoting value-based learning among students. By examining existing literature, policy frameworks, and philosophical principles, the study aims to explore how traditional Indian knowledge systems can contribute to the moral, emotional, and social development of students. It also attempts to identify the strengths, limitations, and challenges associated with integrating value-based learning into the current education system.

The significance of this study lies in its attempt to bridge the gap between traditional wisdom and modern educational practices. By providing a conceptual and analytical understanding of value-based learning through Bharatiya Gyan Parampara, the research contributes to the ongoing discourse on educational reform and holistic student development. It is expected that the findings of this study will offer valuable insights for educators, policymakers, and researchers in designing and implementing effective value-based educational strategies.

In summary, the introduction of value-based learning through Bharatiya Gyan Parampara is not merely an academic exercise but a necessary step towards creating a more ethical, balanced, and socially responsible generation of students. The integration of these principles into modern education has the potential to transform the educational landscape and align it with the broader goals of human development and societal well-being.

2. Literature Review

The concept of value-based learning has been extensively discussed in educational philosophy, particularly within the Indian context, where education has traditionally been rooted in ethical, moral, and spiritual development. Bharatiya Gyan Parampara (Indian Knowledge System) offers a rich intellectual heritage that emphasizes holistic education and character building. This section critically reviews existing literature related to value-based learning, Indian knowledge systems, and student development.

2.1. Foundations of Value-Based Education

The philosophical basis of value-based education in India can be traced back to ancient thinkers and scholars. Sarvepalli Radhakrishnan (1953) emphasized that the primary aim of education is not merely the acquisition of knowledge but the cultivation of moral and spiritual values. He argued that education should help individuals develop ethical reasoning and a sense of responsibility toward society.

Similarly, Swami Vivekananda highlighted that education is the manifestation of perfection already present in individuals. He stressed character formation, strength of mind, and moral integrity as essential outcomes of education. His perspective strongly aligns with value-based learning, where the focus is on holistic personality development rather than mere academic achievement.

Furthermore, Mahatma Gandhi introduced the concept of Nai Talim, which integrates ethical values with practical skills and experiential learning. Gandhi's approach emphasized self-reliance, truth (Satya), and non-violence (Ahimsa) as core educational values.

2.2. Bharatiya Gyan Parampara and Educational Philosophy

Bharatiya Gyan Parampara represents the indigenous knowledge traditions of India, encompassing texts such as the Vedas, Upanishads, and the Bhagavad Gita. According to Sri Aurobindo (2002), education should aim at the integral development of physical, emotional, intellectual, and spiritual dimensions of an individual. His concept of integral education resonates strongly with the principles of value-based learning.

Scholars such as Joshi (2006) and Iyer (2017) have highlighted that Indian knowledge systems are inherently value-oriented, emphasizing harmony between the individual and society. The Guru-Shishya tradition, a key feature of Bharatiya Gyan Parampara, fosters respect, discipline, and ethical conduct among students.

2.3. Contemporary Perspectives on Value-Based Learning

Modern scholars have increasingly recognized the importance of integrating value-based education into formal curricula. According to Sharma (2018), value-based education enhances students' emotional intelligence,

https://www.gapgyan.org/

decision-making abilities, and interpersonal relationships. Similarly, Mishra (2019) argues that value-based learning contributes to the development of socially responsible citizens.

International organizations such as UNESCO (2015) have also emphasized the role of education in promoting sustainable development, ethical behavior, and global citizenship. Their framework highlights the importance of integrating values such as respect, empathy, and responsibility into education systems.

Recent studies indicate that students exposed to value-based education demonstrate higher levels of empathy, ethical awareness, and social responsibility. However, the implementation of such approaches remains inconsistent across educational institutions.

2.4. National Education Policy (2020) and Value-Based Learning

The introduction of National Education Policy 2020 marks a significant step toward integrating value-based education into the Indian education system. The policy emphasizes holistic and multidisciplinary learning, focusing on the development of ethical, moral, and constitutional values.

NEP 2020 advocates the inclusion of Indian Knowledge Systems in curricula, recognizing their role in promoting cultural awareness and ethical development among students. It also highlights the importance of experiential learning, critical thinking, and value inculcation.

Scholars such as Sinha (2020) and Kumar (2021) have noted that NEP 2020 provides a strong framework for revitalizing value-based education through Bharatiya Gyan Parampara. However, they also point out challenges related to curriculum design, teacher training, and institutional readiness.

2.5. Value-Based Learning and Student Development

Several empirical and conceptual studies have explored the impact of value-based learning on student development. Research by Srivastava (2019) indicates that value-based education positively influences students' behavior, emotional stability, and academic integrity. Similarly, Rao (2017) found that students exposed to ethical education demonstrate better decision-making skills and social adaptability. Value-based learning contributes to multiple dimensions of student development, including:

Cognitive Development: Enhancing critical thinking and ethical reasoning
Emotional Development: Improving empathy and emotional intelligence
Social Development: Promoting cooperation and social responsibility
Moral Development: Strengthening ethical values and integrity

Despite these benefits, studies reveal that the current education system often prioritizes academic performance over value inculcation, leading to an imbalance in student development.

3. Research Gap

Although extensive literature exists on value-based education and Indian knowledge systems, there is a lack of comprehensive studies that specifically analyze the integration of Bharatiya Gyan Parampara into value-based learning for students using a secondary data approach. Additionally, limited research focuses on critically evaluating both the strengths and limitations of such integration in contemporary education.

4. Objectives of the Study

To understand the concept of value-based learning
To analyze the principles of Bharatiya Gyan Parampara
To examine the role of Indian knowledge systems in student development
To critically evaluate the strengths and limitations of value-based learning
To suggest practical recommendations for implementation

5. Research Methodology

5.1 Introduction

Research methodology forms the backbone of any academic investigation as it provides a systematic framework for collecting, analyzing, and interpreting data. The present study, titled "A Critical Analysis of Value-Based Learning among Students through Bharatiya Gyan Parampara," adopts a structured and scientific approach to examine the role of Indian Knowledge Systems in promoting value-based education among students. Since the study aims to explore conceptual relationships and theoretical perspectives rather than empirical testing, a secondary data-based methodology has been adopted. This approach ensures comprehensive coverage of existing knowledge and facilitates critical analysis.

5.2 Research Design

The study follows a descriptive and analytical research design.

Descriptive in nature as it explains the concepts of value-based learning and Bharatiya Gyan Parampara.

Analytical in approach as it critically evaluates the relationship between traditional knowledge systems and student development.

The research design is primarily qualitative, focusing on interpretation, comparison, and synthesis of existing literature.

https://www.gapgyan.org/

5.3 Nature of the Study
The study is:
Conceptual – It develops a theoretical understanding of value-based learning through Indian knowledge traditions.
Exploratory – It explores the relevance of Bharatiya Gyan Parampara in modern education.
Critical – It evaluates strengths, limitations, and applicability in contemporary contexts.
5.4 Sources of Data
The study is based entirely on secondary data, which has been collected from credible and authoritative sources.
5.4.1 Primary Sources (Classical Texts)
Vedas
Upanishads
Bhagavad Gita
Ancient educational philosophies
5.4.2 Secondary Sources
Peer-reviewed journals and research articles
Books on Indian philosophy and education
Government reports (e.g., National Education Policy 2020)
Reports by organizations such as NCERT and UNESCO
Academic dissertations and conference papers
These sources provide both traditional and contemporary perspectives on value-based education.
5.5 Data Collection Method
Data has been collected through:
Document Analysis – Systematic review of books, articles, and policy documents
Content Analysis – Identification of key themes such as values (Dharma, Satya, Ahimsa, Seva)
Thematic Analysis – Categorization of information into meaningful themes related to student development
The process involved selecting relevant literature, reviewing content, and extracting key insights aligned with the objectives of the study.

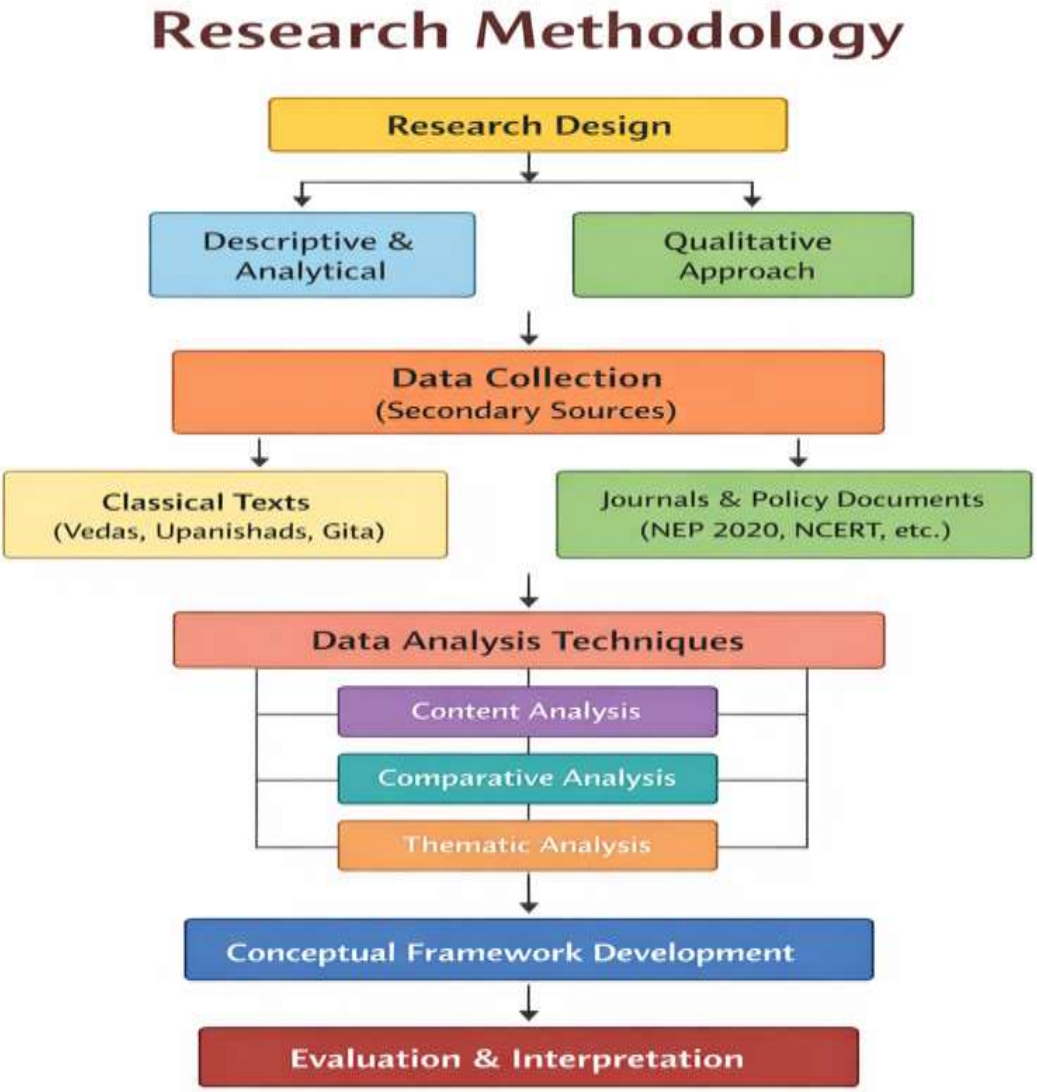
5.6 Conceptual Framework Approach
The study is guided by a conceptual framework that establishes a relationship between:
Independent Variable: Bharatiya Gyan Parampara (core values)
Mediating Variables: Teaching methods, curriculum integration, teacher-student interaction
Dependent Variable: Value-based learning outcomes among students
This framework helps in systematically analyzing how traditional values influence student development in modern educational settings.
5.7 Data Analysis Techniques
Since the study is qualitative, the following analytical techniques have been used:
Comparative Analysis – Comparison between traditional and modern education systems
Interpretative Analysis – Understanding philosophical concepts and their educational relevance
Synthesis Method – Integrating insights from multiple sources
Tabular Analysis – Presenting data in structured tables for clarity
These techniques help in deriving meaningful conclusions from secondary data.
5.8 Scope of the Study
The study focuses on students in the Indian education system
It examines value-based learning through Bharatiya Gyan Parampara
It includes both traditional and contemporary perspectives
The findings are applicable to schools, colleges, and higher education institutions
5.9 Limitations of the Study
The study is based on secondary data, which may lack real-time empirical validation
Interpretation of philosophical concepts may involve subjectivity
Limited availability of quantitative data on value-based learning outcomes
The study focuses primarily on the Indian context, limiting global generalization
5.10 Reliability and Validity
To ensure the quality of the study:
Reliability is maintained by using consistent and credible sources
Validity is ensured through:
Use of authentic texts and peer-reviewed literature
Cross-verification of data from multiple sources
Alignment of findings with established educational theories
5.11 Ethical Considerations
Proper acknowledgment and citation of all sources
Avoidance of plagiarism through paraphrasing and referencing

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

Respect for intellectual property rights
Objective and unbiased interpretation of data

FIGURE-1



6. Concept of Value-Based Learning

Value-Based Learning (VBL) is an educational approach that emphasizes the integration of moral, ethical, social, and cultural values into the teaching-learning process. It seeks to develop not only the intellectual capabilities of students but also their character, personality, and sense of responsibility toward society. In contrast to purely knowledge-oriented education, value-based learning focuses on nurturing the inner qualities of learners, enabling them to make ethical decisions and lead meaningful lives. At its core, value-based learning aims to cultivate a balanced individual by harmonizing cognitive, emotional, and behavioral dimensions of development. It recognizes that education is not merely the transmission of information but a transformative process that shapes attitudes, beliefs, and conduct. In this context, values serve as guiding principles that influence an individual's actions and interactions within society.

6.1 Meaning and Definition of Value-Based Learning

The term "value-based learning" refers to a systematic effort to inculcate desirable values such as honesty, integrity, compassion, respect, responsibility, and cooperation among students. It involves embedding these values within curricular and co-curricular activities so that students internalize them through experience and reflection. Scholars have defined value-based education as the process of developing moral awareness and ethical competence among learners. It is concerned with fostering qualities that contribute to personal excellence as well as social harmony. In the Indian context, value-based learning is deeply rooted in cultural traditions and philosophical teachings that emphasize righteous living and self-realization.

6.2 Nature and Characteristics of Value-Based Learning

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

1. Holistic Development: It focuses on the overall development of the learner, including physical, mental, emotional, and spiritual aspects.
2. Experiential and Reflective: Values are not taught through rote memorization but are developed through real-life experiences, discussions, and self-reflection.
3. Student-Centric Approach: The learner is placed at the center of the educational process, encouraging active participation and personal growth.
4. Contextual and Cultural Relevance: Value-based learning is closely linked to cultural traditions and societal norms, making it meaningful and relatable.
5. Lifelong Process: The development of values is continuous and extends beyond formal education into all aspects of life.

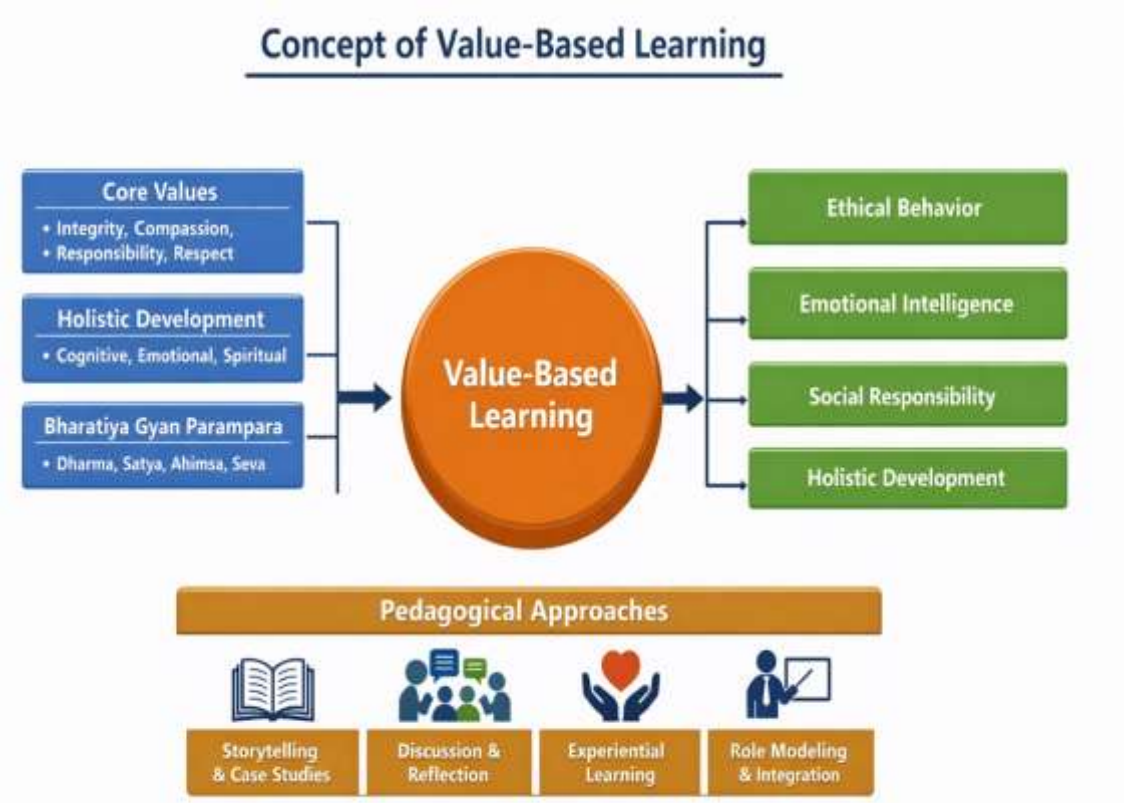
6.3 Core Values in Value-Based Learning

Value-based learning encompasses a wide range of values that contribute to individual and social well-being. Some of the key values include:

Integrity: Upholding honesty and moral principles in all actions
Respect: Recognizing the dignity and rights of others
Responsibility: Being accountable for one's actions
Compassion: Showing empathy and concern for others
Discipline: Maintaining self-control and adherence to rules
Cooperation: Working collaboratively with others
Tolerance: Accepting diversity and differences

In the context of Bharatiya Gyan Parampara, these values are further enriched by concepts such as Dharma (righteousness), Satya (truth), Ahimsa (non-violence), and Seva (selfless service).

FIGURE-2



7. Bharatiya Gyan Parampara: Philosophical Foundations

Bharatiya Gyan Parampara is based on ancient Indian texts such as the Vedas, Upanishads, and Bhagavad Gita.

Key Principles:

Dharma (duty and righteousness)
Karma (action and consequences)
Ahimsa (non-violence)
Satya (truth)
Seva (service)

These principles promote holistic human development.

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

Table 1: Core Values in Bharatiya Gyan Parampara and Student Outcomes

Value	Description	Student Outcome
Dharma	Righteous duty	Ethical decision-making
Satya	Truthfulness	Integrity
Ahimsa	Non-violence	Empathy
Seva	Service	Social responsibility

Table 2: Comparison of Traditional vs Modern Education

Aspect	Traditional System	Modern System
Focus	Holistic development	Academic performance
Teacher Role	Mentor (Guru)	Instructor
Values	Central	Limited
Learning Style	Experiential	Theoretical

Table 3: Impact of Value-Based Learning

Dimension	Impact Level
Emotional Intelligence	High
Ethical Awareness	High
Academic Integrity	Moderate
Social Behavior	High

8. Challenges in Implementation

The integration of value-based learning through Bharatiya Gyan Parampara into the contemporary education system presents significant opportunities; however, its practical implementation is confronted with multiple structural, pedagogical, and socio-cultural challenges. These challenges must be critically examined to ensure effective and sustainable adoption.

Curriculum Rigidity and Overloaded Syllabi
Lack of Teacher Training and Awareness
Dominance of Western Educational Models
Lack of Standardized Framework and Assessment Mechanisms
Institutional Constraints and Policy Gaps
Socio-Cultural Diversity and Interpretation Issues
Student Attitudes and Changing Mindsets
Lack of Experiential Learning Opportunities
Technological and Digital Distractions
Resistance to Change in Educational Practices

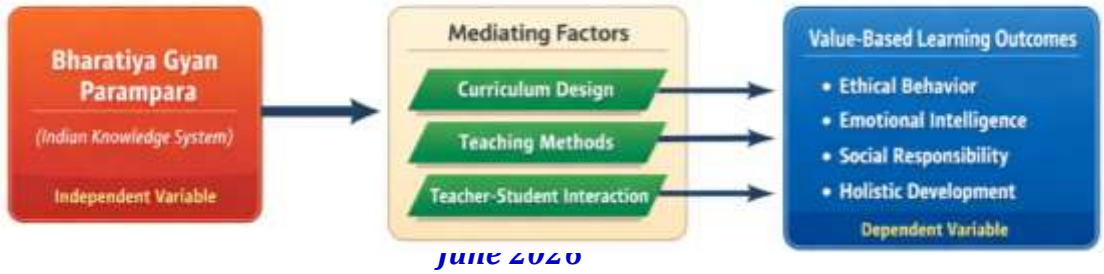
9. Conclusion

The present study critically examined the role of Bharatiya Gyan Parampara in fostering value-based learning among students within the contemporary educational framework. Drawing upon secondary data from classical Indian texts, policy documents, and scholarly literature, the study highlights that value-based education is not only relevant but essential in addressing the ethical, emotional, and social challenges faced by students today.

The findings clearly indicate that Bharatiya Gyan Parampara offers a holistic and deeply rooted framework for education that integrates intellectual, moral, emotional, and spiritual dimensions of development. Core values such as Dharma (righteousness), Satya (truth), Ahimsa (non-violence), and Seva (service) provide a strong ethical foundation that can guide students in their personal and professional lives. These values contribute significantly to the development of responsible, empathetic, and socially conscious individuals.

At the same time, the study identifies a critical gap between the philosophical richness of Indian knowledge systems and their practical implementation in modern education. Despite policy support, particularly through the National Education Policy (2020), challenges such as curriculum rigidity, lack of teacher preparedness, and dominance of Western educational models continue to hinder effective integration.

FIGURE-3



https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

References

[1] Aggarwal, J. C. (2010). Principles, methods and techniques of teaching (2nd ed.). Vikas Publishing House.
[2] Aurobindo, S. (2002). The human cycle. Sri Aurobindo Ashram Publication.
[3] Bhattacharya, S. (2019). Indian knowledge systems and their relevance in modern education. International Journal of Educational Research, 8(2), 45–52.
[4] Chakrabarti, A. (2020). Value-based education in India: A philosophical perspective. Journal of Indian Education, 46(1), 23–31.
[5] Delors, J. (1996). Learning: The treasure within. UNESCO Publishing.
[6] Government of India. (2020). National education policy 2020. Ministry of Education. https://www.education.gov.in
[7] Gupta, R. (2018). Ethics and values in education: Need of the hour. International Journal of Research in Social Sciences, 8(5), 112–118.
[8] Iyer, R. (2017). The moral and political thought of Mahatma Gandhi. Oxford University Press.
[9] Joshi, K. (2006). Education in Indian tradition. National Council for Teacher Education.
[10] Kumar, A. (2021). Indian knowledge system and modern education: A critical analysis. International Journal of Multidisciplinary Research, 6(3), 78–85.
[11] Mishra, P. (2019). Value-based learning in contemporary education. Journal of Educational Studies, 12(2), 56–63.
[12] Nanda, M. (2016). Science in saffron: Skeptical essays on history of science. Three Essays Collective.
[13] NCERT. (2005). National curriculum framework 2005. National Council of Educational Research and Training.
[14] Pandey, R. (2018). Holistic education and Indian knowledge systems. Indian Journal of Educational Philosophy, 10(1), 34–41.
[15] Radhakrishnan, S. (1953). The philosophy of education. Oxford University Press.
[16] Rao, K. (2017). Moral education in India: Challenges and prospects. Journal of Value Education, 15(2), 67–75.
[17] Sharma, R. (2018). Value-based education in India: Issues and challenges. International Journal of Academic Research, 5(4), 90–96.
[18] Singh, Y. (2015). Modernization of Indian tradition. Rawat Publications.
[19] UNESCO. (2015). Education for sustainable development goals: Learning objectives. UNESCO Publishing.
[20] Vivekananda, S. (1993). Education and character. Advaita Ashrama.

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

Integrating Indian Knowledge Systems with Contemporary Environmental Sustainability: A Conceptual Study

Parekh Priyankaben Manharlal

Assistant professor
At Shree Swaminarayan College of Commerce and Management, Bhavnagar.
priyankaparekhmm@gmail.com
contact no: 8866525295

Abstract

Environmental sustainability is now a global agenda because of environmental degradation, climate change, and depletion of natural resources. Although modern scientific approaches have provided many technological answers, they are often devoid of ethical and integral approaches. On the other hand, Indian Knowledge Systems, based on ancient philosophical ideologies, provide a holistic approach, focusing on human and environmental harmony. This paper is based on conceptual research on how modern environmental sustainability can be amalgamated with Indian Knowledge Systems. It focuses on major environmental principles of Indian philosophy, including Panchamahabhuta, Dharma, and Vasudhaiva Kutumbakam. Moreover, the study also points out the traditional practices related to the conservation of water resources, organic farming practices, and biodiversity conservation. The study compares IKS with the modern concept of sustainability and points out the complementarities between the two concepts. Based on the complementarities between the two concepts, the study suggests an integrated approach to the concept of sustainable development. The study reveals the benefits of the integration of the ethical wisdom of IKS and scientific knowledge for the creation of a more inclusive approach to the concept of sustainability. The environmental crisis, which is increasing at a rapid rate in the form of climate change, biodiversity loss, pollution, and ecological imbalance, has emerged as one of the major challenges to environmental sustainability. The current environmental discourse is largely dominated by the role of science and technology, but there is also recognition of the importance of ethical and philosophical approaches to the relationship between humans and nature.

Keywords: *Indian Knowledge Systems, Environmental Sustainability, Panchamahabhuta, Traditional Ecological Knowledge, Sustainable Development, Indigenous Practices.*

INTRODUCTION

Environmental degradation has come to be recognized as a major global challenge, which has implications for ecological balance and the very survival of humanity. The pace of environmental degradation has accelerated with the process of industrialization, urbanization, and overexploitation of environmental resources. Global warming, loss of biodiversity, and environmental pollution are some of the major environmental issues that have come to be recognized as a major challenge for sustainable development. The contemporary model of sustainable development, which is reflected in the Sustainable Development Goals (SDGs), is based on policy interventions and technological solutions for environmental issues. However, this model of sustainable development has a limitation in that it does not address the cultural and ethical aspects of sustainable development. Indian Knowledge Systems (IKS), which have evolved over thousands of years, provide a balanced model of sustainable development that has a strong emphasis on ecological balance, ethical responsibility, and sustainable living

https://www.gapgyan.org/

practices. IKS is based on ancient scriptures, traditions, and knowledge systems that recognize the interrelationship between all living beings in the universe.

This paper aims to examine the potential for a balanced model of sustainable development through the amalgamation of Indian Knowledge Systems with contemporary models of environmental sustainability.

2. Objectives of the Study

1.To study environmental sustainability concepts under Indian Knowledge Systems

2.To study the various ecological concepts incorporated in Indian philosophy

3.To compare traditional knowledge with modern concepts of sustainability

4.To develop an integrated conceptual model for sustainability

5.To study the role of traditional ecological knowledge in biodiversity and climate change

6.To study the applicability of Indian Knowledge Systems for achieving Sustainable Development Goals

7.To study the gaps and challenges in integrating Indian Knowledge Systems with modern environmental policy

8.To suggest policy recommendations and strategies for effective integration of IKS with sustainable development.

3. Research Methodology

This research is based on a qualitative and conceptual research methodology. It is based on the following sources:

•Secondary data sources such as books, research articles, and reports

•Analysis of ancient Indian scriptures and philosophical writings

•Analysis of contemporary writings on sustainability

This research is based on a descriptive and analytical methodology for evaluating the relevance of IKS in contemporary environmental sustainability.

4. Literature Review

1. Shukla and Yadav (2025) discussed how Indian Knowledge Systems offer an integrated framework for environmental conservation based on ethical and spiritual philosophies. The authors discussed concepts of Vasudhaiva Kutumbakam and sacred groves as examples of biodiversity conservation methods used in ancient India. The authors emphasized how these methods are relevant to modern concepts of sustainability.

2. Bhardwaj and Gopal (2025) discussed how traditional knowledge systems can be integrated with modern concepts of sustainability. The authors concluded their study by emphasizing how IKS promotes efficiency in resource utilization and environmental balance, which are critical for sustainable development. The authors also emphasized how indigenous knowledge systems can be used to improve modern environmental policies.

3. Sakshi (2026) discussed traditional environmental practices such as rainwater harvesting, organic farming, and climate-sensitive architecture. The author emphasized how these practices not only contribute to environmental sustainability but also offer opportunities for economic development, especially in rural areas.

4. In the study "Kavita (2025)," the author delves into the importance of indigenous knowledge in biodiversity conservation and adapting to climate change. In this study, the author asserts the importance of incorporating local community knowledge in the policy-making process.

5. Bhattacharjee (2025) offers a philosophical approach to the discussion on environmental sustainability from an Indian point of view. In the study, the author presents various concepts such as Panchamahabhuta and Dharma and their significance to the environment. The author asserts the importance of the Indian philosophy approach to the environment, which is eco-centric compared to the anthropocentric approach of modern philosophy.

https://www.gapgyan.org/

6. In the study "Sharma (2023)," the author discusses the importance of environmental ethics from the ancient Indian scriptures. In the study, the author cites the Vedas and Upanishads as advocating for the need for harmonious relations between humans and the environment. The author asserts the importance of the ancient Indian scriptures as a guiding philosophy for modern environmental policies.

7.Gupta and Singh (2022) discuss the traditional practices of agriculture and their impact on sustainability. In this article, the writers discuss various practices of agriculture, including crop rotation and organic fertilizers. They argue that the application of this form of agriculture can improve the sustainability of the environment.

8.Rangarajan (2021) discusses the importance of sacred groves in biodiversity conservation. In this article, the writer discusses the importance of forests in the conservation of biodiversity. Rangarajan asserts that the conservation of biodiversity can be achieved through the application of the sacred grove model.

5. Hypothesis

H_0 (Null Hypothesis): There is no significant relationship between Indian Knowledge Systems and modern environmental sustainability.

H_1 (Alternative Hypothesis): There is a significant positive relationship between Indian Knowledge Systems and modern environmental sustainability.

H_2:Indian Knowledge Systems have a significant positive impact on environmental conservation practices.

H_3: Integration of traditional ecological knowledge with modern scientific approaches enhances sustainability outcomes.

H_4:Traditional ecological practices contribute significantly to biodiversity conservation and climate resilience.

H_5: Ethical principles in Indian Knowledge Systems positively influence sustainable environmental behaviour.

H_6: Lack of awareness and policy support negatively affects the integration of Indian Knowledge Systems into modern sustainability frameworks.

H_7:Community-based traditional practices are more effective in promoting sustainability compared to centralized environmental management systems.

6. Conceptual Framework of Indian Knowledge Systems:

Indian Knowledge System is based on certain principles that focus on the holistic understanding of things, their interconnectedness, and the integration of knowledge with moral and spiritual values. Indian Knowledge System is based on the fundamental principles of the oneness of everything in the universe, the harmony between humans and nature, and the pursuit of knowledge for the well-being of both individuals and society. The following are the key principles of Indian Knowledge System:

1. Four Purushartha
2. Panch Mahakosh
3. Ashtangik Marg
4. Para Vidya and Apara Vidya
5. Tri Ratna in Jainism
6. Trigunas

1. Four Purushartha: The term Purushartha is one of the basic tenets of the Indian Knowledge System and refers to the four basic objectives of life. The four Purusharthas provide a holistic approach for a balanced and meaningful life. This ancient philosophy of the Purusharthas helps individuals strike a balance between material and ethical pursuits, as emphasized by the holistic approach of the IKS. The four Purusharthas are:

i) Dharma: It stands for righteousness, morality, duty, and the cosmic order.

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

ii) Artha: It stands for wealth, prosperity, security, and well-being. It is the pursuit of economic values and resources for self and society.

iii) Kama: It stands for pleasure, desire, love, and enjoyment. It is the pursuit of psychological values and aesthetic experiences for self and others.

iv) Moksha: It stands for liberation, freedom, and self-realization. It is the ultimate goal of human life and the transcendence of the cycle of birth and death.

The four Purushartha are said to be interrelated and complementary, yet hierarchical. Dharma is the most important of the Purushartha and should be followed by the others. Artha and Kama are necessary and proper but should be followed in moderation and in conjunction with dharma. Moksha is the most important and desirable of the Purushartha but can only be achieved by following and giving up the other three. The Purushartha is a major part of Hindu philosophy and culture. It is a way of understanding the meaning and purpose of life and making ethical and spiritual decisions.

2. Panch Mahakosh: Panch Mahakosh refer to the five sheaths or layers of human existence, according to the Vedanta philosophy. These are:

i) Annamaya Kosha: This is the physical body, which is made of food and is nourished by food. It is the outermost and grossest of all the layers of the human being. It is subject to birth, growth, decay, and death. It is also the instrument of action and perception for all other layers.

ii) Pranamaya Kosha: This is the vital body, which is composed of the five Pranas or vital air, i.e., Prana, Apana, Udana, Samana, and Vyana, and the five organs of action. The Pranas are the life forces, which control and regulate all physiological functions of the body, like breathing, digesting, etc. The organs of action are the mouth, hands, feet, genitals, and anus. They are the means of expression and interaction with the external world.

iii) Manomaya Kosha: This is the mental body, which comprises the mind, the five sense organs of knowledge, and memory. The mind is the faculty of emotions, desires, doubts, and imagination. The sense organs of knowledge are the eyes, ears, nose, tongue, and skin, which are the instruments of perception and knowledge of the external world. Memory is the storehouse of impressions and experiences, which form the personality and character of the individual.

iv) Vijnanamaya Kosha: This is the intellectual body, which is also the intellect or wisdom sheath. The intellect is the faculty of reasoning, discrimination, and decision-making.

v) Anandamaya Kosha: Ananda is the essence of this universe, and all has been created from this essence. It is termed as "Anandamaya Kosha" or the bliss layer of our existence. It is the most subtle layer of our existence, devoid of any emotions, a state of complete silence, a state of complete harmony and complete health.

3. Ashtangik Marg: The term "Ashtangik Marg" is derived from two words. "Ashtangik" means "eightfold," and "Marg" means "path" or "way." Therefore, "Ashtangik Marg" means "eightfold path" or "eight limbs" of yoga. The Ashtangik Marg is a systematic approach to spiritual growth and self-realization. Each of these "limbs" is a different aspect of yoga, which, when practiced, takes an individual toward the ultimate goal of yoga, i.e., union with the divine or self-realization. The "limbs" of yoga are: i) Yama (Restraints): These are ethical principles that guide an individual's behavior in the external world. These are

- Ahimsa (Nonviolence): Practicing kindness, compassion, and non-harming towards all living beings.
- Satya (Truthfulness): Speaking and living truthfully, both in words and actions.
- Asteya (Non-stealing): Respecting other people's property and belongings, i.e., not stealing.
- Brahmacharya (Celibacy/Moderation): Practicing self-control and moderation in all aspects of life, including sexual behavior.

https://www.gapgyan.org/

• Aparigraha (Non-possessiveness): Letting go of greed, attachment, and possessiveness.

ii) Niyama (Observances): These are personal observances or practices aimed at personal discipline and spiritual growth. These include:

• Santosha (Contentment): The practice of cultivating contentment and being grateful for what one has instead of constantly trying to seek approval or possessions from others.

• Saucha (Cleanliness): The practice of cultivating cleanliness and purity, both within and without.

• Tapas (Austerity): The practice of cultivating self-discipline, determination, and perseverance.

• Svadhyaya (Self-Study): The practice of cultivating self-reflection and study of spiritual texts aimed at gaining a deeper understanding of oneself and the divine.

• Ishvara Pranidhana (Surrender to a Higher Power): The practice of surrendering one's ego and personal will to a higher power.

iii) Asana (Posture): Asanas are the physical postures that are practiced during the course of yoga. The asanas are meant to build strength, flexibility, balance, and concentration, as well as to attain physical health and well-being. The practice of asanas is meant to prepare the body for meditation and attaining higher states of consciousness.

iv) Pranayama (Breath Control): Pranayama is the practice of controlling and regulating the breath to attain vitality, mental clarity, and spiritual awareness. By controlling the breath, the practitioner can control the flow of prana, i.e., the life force energy present in the body.

v) Pratyahara (Withdrawal of the Senses): Pratyahara is the practice of withdrawing the senses from the external world and turning the attention inward, i.e., becoming aware of the inner world, thereby becoming more focused and concentrated.

vi) Dharana (Concentration): Dharana is the practice of concentration, focusing the mind on a single point or object. By concentrating the mind, the practitioner develops mental stability, clarity, and inner strength.

vii) Dhyana (Meditation): Dhyana is the practice of meditation, focusing on uninterrupted awareness of the object of meditation. Through the practice of meditation, the practitioner transcends the common fluctuations of the mind and attains a state of inner peace, clarity, and oneness.

viii) Samadhi (Union with the Divine): Samadhi is the ultimate goal of the practice of yoga, where the practitioner attains the state of oneness or union with the divine consciousness. Through the practice of Samadhi, the individual ego disappears, and the practitioner experiences the profound reality of the oneness of existence.

The Eightfold Path of Yoga offers the practitioner a complete path to spiritual growth and self-realization, where the practitioner goes on a journey of self-discovery, self-transformation, and union with the divine. The eight limbs of the path are interconnected, and the practitioner moves step by step towards the ultimate goal of the practice of yoga.

Para Vidya:

• "Para Vidya" or "higher knowledge/transcendental knowledge," as it is sometimes called, is the spiritual knowledge that transcends the material world. It is the knowledge of the ultimate reality, "Brahman," which lies beyond the realm of the senses and intellect.

• "Para Vidya" is said to be intuitive and experiential knowledge, beyond the scope of ordinary knowledge. It involves the knowledge of the self as being one with the ultimate reality, "Brahman," and the realization of the oneness of existence.

https://www.gapgyan.org/

• Attaining Para Vidya involves rigorous spiritual practices including meditation, self-inquiry (Atma Vichara), devotion (Bhakti), and the company of a realized master (Guru). It involves transcending the limits of the mind and ego to attain the divine reality.

• The ultimate goal of Para Vidya is attaining liberation (Moksha) from the cycle of birth and death (Samsara) and realizing the true nature of the individual as Brahman. It leads to the state of enlightenment (Jnana), where the individual soul (Atman) realizes its identity with the universal consciousness (Brahman).

Apara Vidya:

• Apara Vidya, or "lower knowledge" or "mundane knowledge," is defined as "empirical knowledge about the physical world." It is comprised of different branches of knowledge, including science, arts, literature, philosophy, etc.

• Apara Vidya is related to the understanding of the phenomenal world and its working. It is acquired through perception, reason, and intellect. This type of knowledge is related to duality and is subject to change and evolution.

• Apara Vidya is mentioned in different Hindu scriptures, including Vedas, which are comprised of knowledge about rituals, the universe, ethics, and society. It is also comprised of knowledge acquired through worldly experiences and human endeavors.

• Apara Vidya is acquired through formal education, observation, experimentation, studying scriptures, and intellectual activities. It involves learning from teachers, scholars, and experts in different fields of knowledge.

• The objective of Apara Vidya is to enable the pursuit of worldly activities, satisfy materialistic needs, and benefit the world at large. It is considered to be of secondary importance to Para Vidya as it does not result in attaining spiritual freedom, only in attaining success on a temporary basis.

5. Tri Ratna in Jainism : The Tri Ratna of Jainism are right faith, right knowledge, and right conduct, which are the basic necessities required to attain liberation from the cycle of rebirth.

i) Samyak darshan (Right faith)

• It means seeing (hearing, feeling, etc.) things clearly and discarding what prevents your vision, such as prejudices and superstitions.

• Samyak darshan means "correct perception"

• Right Perception is necessary to attain Right Knowledge.

ii) Samyak jnana (Right knowledge)

• Right knowledge, as per certain authors, means having a clean spirit, one which is free from attachment and desire.

• Knowledge obtained through the senses, knowledge obtained from scriptures, clairvoyance, the study of telepathy, and omniscience are the five kinds of knowledge.

iii) Samyak charitra (Right conduct/action)

• This follows after the realisation of Right Perception and Right Knowledge for the Jain.

• It is a set of precise vows and ethical disciplines that one undertakes to attain kevala.

• The Five Great Vows of non-violence, honesty, non-stealing, celibacy, and non-possession or non-attachment are those of yatis, i.e., Jain Monastics.

6. Trigunas : The term "Trigunas" or "Three Gunas" as per the Hindu philosophy, particularly the Samkhya and Vedanta school of thought, refers to the three basic qualities or attributes that are present in every aspect of the creation, including the mind, body, and the world at large. The gunas are considered to be the basic principles that determine the quality of everything that exists in the world, and the three gunas are Sattva, Rajas, and Tamas.

https://www.gapgyan.org/

6. Trigunas : The term "Trigunas" or "Three Gunas" as per the Hindu philosophy, particularly the Samkhya and Vedanta school of thought, refers to the three basic qualities or attributes that are present in every aspect of the creation, including the mind, body, and the world at large. The gunas are considered to be the basic principles that determine the quality of everything that exists in the world, and the three gunas are Sattva, Rajas, and Tamas.

i) Sattva: Sattva is purity, harmony, and balance. It is associated with light, clarity, and goodness. It is also associated with qualities like knowledge, wisdom, compassion, and serenity. Sattva helps in the development of qualities like intelligence, clarity of thought, inner peace, contentment, and spiritual illumination. It helps in establishing harmony and balance in the mind, resulting in feelings of calmness and tranquility. The predominance of Sattva in an individual helps him or her develop virtues like truthfulness, compassion, patience, and selflessness. It helps him or her develop interest in spiritual growth, self-enlightenment, and acquisition of higher knowledge and wisdom. The predominance of Sattva helps in mental clarity, spiritual growth, and experiencing inner joy and fulfillment. It helps in developing virtues and attaining higher states of consciousness.

ii) Rajas: Rajas is the attribute of activity, dynamism, and passion. It is the energy, movement, and the motivating factor for activity. Rajas is related to desires, ambitions, and the pursuit of worldly ambitions. Rajas promotes the growth of ambition, desires, unrest, and attachment. It is the pursuit of success in the world, achievement, and fulfillment of desires. When the quality of Rajas predominates in a person, the person exhibits the qualities of unrest, agitation, competitiveness, and craving for sensual pleasures. They are driven by desires, ambitions, and the pursuit of worldly ambitions. The predominance of the quality of Rajas gives rise to unrest, agitation, and attachment to the fruits of actions. This gives rise to craving, ambition, and dissatisfaction, resulting in the cycle of birth and death (Samsara).

iii) Tamas: Tamas is the attribute of inertia, darkness, and ignorance. It is dullness, laziness, and absence of light. Tamas is related to qualities such as ignorance, delusion, and lethargy. Tamas cultivates qualities such as ignorance, laziness, inertia, and delusion. It confuses the mind, prevents clear understanding, and causes people to neglect their duties and responsibilities. When Tamas is dominant, individuals possess qualities such as lethargy, ignorance, dullness, and procrastination.

They are filled with ignorance, confusion, and resistance to spiritual growth. When Tamas is dominant, people are in a state of darkness, confusion, and stagnation. It prevents spiritual growth, cultivates ignorance, and sustains the cycle of suffering and bondage.

7. Environmental Ethics in Indian Traditions

Indian scriptures stress the importance of ecological harmony and sustainability.

•Vedic scriptures promote coexistence with nature

•Atharva Veda includes the Earth Hymn, also known as Prithvi Sukta

•Bhagavad Gita promotes balanced living

•Jainism and Buddhism emphasize non-violence towards all living beings

These are examples of an eco-centric approach that focuses on the conservation of nature.

8. Traditional Ecological Practices in Indian Knowledge Systems

Indian Knowledge Systems (IKS) embrace a variety of traditional ecological practices, which have evolved over the centuries on the basis of observations and experiences. These are sustainable, community-based, and environmentally appropriate, as they are deeply rooted in ecological understanding and the need for conserving natural resources, making them highly relevant in the context of contemporary concerns for environmental sustainability.

8.1 Traditional Water Conservation Systems

https://www.gapgyan.org/

Water management has been an important part of Indian ecological practices, especially in arid and semi-arid areas of India.

•Stepwells (Baolis/Vavs): Advanced underground structures for the storage of water, developed to conserve and recharge groundwater. These structures helped to conserve water by preventing evaporation and ensured the availability of water at any point of time.

•Johads: Small check dams developed and implemented in Rajasthan to collect rainwater and recharge groundwater.

•Tank Irrigation System: This is a traditional method of water management, especially in South India.

8.2 Sustainable Agricultural Practices

Agricultural practices in traditional Indian society were based on ecological principles that maintained soil fertility and biodiversity.

•Crop Rotation and Mixed Cropping: This helped prevent soil depletion and reduced pest infestation.

•Organic Fertilizers: Cow dung, compost, and green manure were used for soil enrichment without chemical additives.

•Natural Pest Management: Neem-based solutions and biological pest control methods were used.

•Zero Budget Natural Farming (ZBNF): This is a revival of traditional farming practices that focuses on chemical-free farming.

8.3 Biodiversity Conservation through Sacred Groves

Sacred groves are forests that are protected by the local community through religious and cultural beliefs.

•These forests are biodiversity hotspots where rare and endangered species are found.

•There is minimal human interference; therefore, the natural ecosystem is not disturbed.

•Sacred groves act as carbon sinks; therefore, they help regulate the climate.

8.4 Traditional Knowledge on Forest and Resource Management

The indigenous communities of India have developed very sophisticated methods of managing forests and natural resources.

•The management of utilization of resources ensured sustainable development.

•The utilization of natural resources during a particular season ensured that there was no over-exploitation of those resources.

•The ownership of natural resources by the communities ensured a sense of responsibility

8.5 Ayurveda and Environmental Sustainability

Traditional Indian medicine, particularly Ayurveda, is closely linked to ecological balance.

- It emphasizes the use of natural herbs and plant-based remedies.
- Sustainable harvesting practices ensured the regeneration of medicinal plants.
- The concept of balance between body and environment reflects ecological harmony

8.6 Climate Responsive Architecture and Settlements

Traditional Indian architecture was developed to respond to the climate of the region.

•Traditionally, natural materials such as mud, stone, and wood were used.

•Methods of ventilation and thermal regulation were used to reduce energy consumption.

•Buildings were oriented to take advantage of sunlight and wind direction.

8.7 Waste Management and Circular Economy Practices

Traditional Indian societies adopted a zero-waste policy even before the term became fashionable.

•Reusing organic waste for composting

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

•Less use of non-biodegradable materials

•Reusing and recycling household items

8.8 Community-Based Conservation Practices

Community involvement has been an integral part of traditional ecological practices.

•Village-based management of water bodies and forests

•Community-based decision-making for resource use

•Cultural taboos for environmental practices

8.9 Modern Environmental Sustainability

The modern concept of environmental sustainability is based on:

•Climate change mitigation

•Renewable energy

•Environmental governance

•Sustainable Development Goals (SDGs)

9. Integration of Indian Knowledge Systems with Modern Environmental Sustainability:

The integration of Indian Knowledge Systems with modern environmental sustainability is a transformative concept. It is an attempt to link traditional knowledge with modern scientific innovations. While modern concepts of environmental sustainability are based on technological advancements and policy interventions, they lack the ethical and community-based aspects of traditional knowledge. Thus, to integrate these two concepts of environmental sustainability, there is a need to go beyond incorporating traditional knowledge and to merge these two concepts.

At the conceptual level, the Indian knowledge systems provide a holistic and eco-centric worldview, where the human being is considered to be part of nature rather than controlling nature. This is different from the anthropocentric nature of modern sustainability, where the focus is on the efficient use of resources and the optimization of the economy. The integration of these two perspectives will enable the formulation of a sustainability paradigm that is both moral and scientific in nature. For example, the modern environmental governance systems can be enriched by the inclusion of Dharma (responsibility to nature) and Vasudhaiva Kutumbakam (the world is one family).

The integration can be achieved through:

- Policy Integration
- Sustainable Agriculture
- Climate Adaptation
- Education
- Community Participation

10. Comparative Analysis:

Aspect	Indian Knowledge Systems	Modern Sustainability
Approach	Holistic	Scientific
Focus	Harmony with nature	Resource efficiency
Ethics	Strong	Limited
Knowledge	Traditional	Empirical
Model	Eco-centric	Anthropocentric

https://www.gapgyan.org/

11. Challenges in Integrating Indian Knowledge Systems with Modern Environmental Sustainability:

Another major problem is the lack of documentation and standardization of traditional ecological knowledge. A significant portion of IKS is based on oral tradition, making it difficult to maintain and interpret. The lack of written documentation, scientific validation, and standardization of traditional ecological knowledge is another major problem. The diversity of traditional ecological knowledge also poses a problem in generalizing it at a national or global level.

The dominance of Western scientific thought in education, research, and decision-making is another major limitation in the acceptance of Indian Knowledge Systems. The contemporary environmental discourse is dominated by Western thought, which is often critical of other approaches. The imbalance in intellectual discourse is another major limitation in accepting traditional ecological knowledge, as it is often regarded as outdated and unscientific, although it is proved to be sustainable for centuries.

Another challenge relates to policy and institutional gaps. Although there is growing awareness of the importance of indigenous knowledge in international policy instruments, such as sustainable development, its actual integration in national and local policy instruments is still in its infancy, with a lack of clear policy guidelines, support, and institutional mechanisms for the actual integration of IKS in environmental governance. Bureaucratic inefficiencies are also a challenge in policy implementation.

12. Findings and Discussion

- Indian Knowledge Systems inherently support sustainability
- Traditional practices align with modern environmental goals
- Integration enhances resilience and adaptability
- Ethical values strengthen sustainability frameworks
- Indigenous knowledge offers cost-effective solutions

13. Conclusion

Indian Knowledge Systems, if integrated with modern sustainability approaches, can solve the current environmental problems in an effective manner. It is important that the importance of traditional knowledge systems be understood and the integration of traditional knowledge into modern sustainability approaches be promoted at the policy and research levels.

Indian knowledge systems are a rich tradition of human wisdom that has been providing inspiration to individuals, groups, and societies, both in the past and in the present, both at the national and international levels, and that has the power to continue to do so because of the deep insights that it offers into the nature of the human condition and the means to personal, social, and spiritual fulfilment.

14.References

[1] Bhardwaj, S. G., & Gopal, K. R. (2025). Traditional Indian Knowledge Systems and sustainability. International Journal of Management Research.

[2] Shukla, P., & Yadav, A. (2025). Environmental ethics in Indian traditions. Journal of Social Science Research.

[3] Sakshi. (2026). Indian Knowledge System and sustainable practices. Journal of Business Studies.

https://www.gapgyan.org/

[4] Kavita. (2025). Indigenous knowledge and biodiversity conservation. International Journal of Advanced Research.

[5] Bhattacharjee, G. (2025). Environmental protection in Indian philosophy. Asian Journal of Interdisciplinary Research.

[6] United Nations. (2015). Sustainable Development Goals.

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

Integrating Indian Knowledge Traditions into Contemporary Leadership and Management Practices: An Empirical Study among Academic Professionals

Dr. Vrunda J. Mehta

Assistant Professor
G. L. Kakadia College of Commerce & Management
Email: vrundame@gmail.com

Abstract

In the evolving landscape of organizational leadership, contemporary institutions increasingly seek value-driven, ethically grounded, and culturally relevant management frameworks. While Western leadership theories continue to dominate mainstream discourse, Indian Knowledge Traditions offer a rich philosophical and strategic foundation for leadership and management practices. The present study explores the applicability of indigenous Indian leadership principles in modern academic administration and institutional governance. Drawing conceptual insights from the Bhagavad Gita*,* Arthashastra*, and the Guru-Shishya tradition, the study examines the influence of ethical leadership, duty orientation, mentorship culture, and strategic foresight on perceived leadership effectiveness among academic professionals.*

The study employs a descriptive and empirical research design. A sample of ***60 academic professionals*** *comprising faculty members, coordinators, and academic administrators was analyzed using a structured five-point Likert-scale instrument. Descriptive statistics and correlation analysis were used to assess the relationships among the selected variables. The results reveal high agreement regarding the relevance of Indian leadership principles, with* ***mentorship culture (M = 4.25)*** *and* ***leadership effectiveness (M = 4.20)*** *emerging as the highest-rated dimensions. Further,* ***ethical leadership demonstrated a moderate positive correlation with leadership effectiveness (r = 0.53)****, indicating a meaningful association between value-based leadership practices and organisational outcomes.*

The findings reinforce the continued relevance of Bhartiya Gyan Parampara in contemporary leadership discourse and suggest that integrating Indian knowledge traditions into leadership development frameworks can strengthen ethical governance, institutional trust, and sustainable management practices.

INTRODUCTION

Leadership in the modern institutional environment has undergone a significant shift from purely performance-oriented approaches toward value-based, people-centric, and ethically responsible models. Organizations increasingly recognize that leadership effectiveness extends beyond operational outcomes and includes dimensions such as trust, strategic foresight, emotional stability, and ethical accountability.

Although modern management theory is largely informed by Western perspectives such as transformational leadership and servant leadership, Indian Knowledge Traditions present a holistic alternative rooted in philosophical wisdom and governance practice.

The *Bhagavad Gita* offers insights into self-leadership, duty consciousness, emotional balance, and ethical decision-making. Similarly, Kautilya's *Arthashastra* provides foundational ideas in governance, policy design, risk management, and strategic leadership that remain highly relevant in institutional settings.

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

In educational institutions, where leadership requires a balance of ethics, mentorship, and administration, these indigenous principles can offer a culturally grounded framework.
This study seeks to empirically examine the perceived relevance of these traditional leadership constructs among academic professionals.

2. Literature Review

The growing interest in indigenous leadership frameworks has encouraged scholars to revisit classical Indian texts as sources of management thought.
Agarwal and Rastogi (2021) argue that Indian organizations have historically relied excessively on Western management models, often overlooking culturally rooted frameworks better aligned with Indian social values. Their work emphasizes the relevance of the *Bhagavad Gita* in developing ethical, emotionally intelligent, and duty-driven leadership models.
Mukherjee (2017) identifies the *Bhagavad Gita* as a significant source of modern management thought, particularly in the domains of self-regulation, leadership clarity, and organizational harmony.
Recent work on Indian ethos in management also highlights the practical implications of duty orientation, strategic vision, and ethical leadership in contemporary organizations.
Further, leadership lessons derived from the *Ramayana* and *Bhagavad Gita* continue to be explored in corporate training and professional development contexts.
Research Gap
While conceptual scholarship is growing, empirical evidence examining the perception of Indian leadership principles among professionals remains limited.
This study addresses that gap.

3. Research Methodology

Research Design
Descriptive and empirical.
Objectives
To assess the relevance of Indian leadership principles in modern management.
To examine their relationship with perceived leadership effectiveness.
Hypothesis
H1: Indian leadership values positively influence leadership effectiveness.
Sample
60 academic professionals.
Sampling Method
Convenience sampling.
Instrument
Structured questionnaire using 5-point Likert scale.
Variables
Independent
Ethical leadership
Duty orientation
Mentorship culture
Strategic foresight
Dependent
Leadership effectiveness

4. Data Analysis

Table 1: Descriptive Statistics

Variable	Mean	SD
Ethical Leadership	4.00	0.78
Duty Orientation	4.17	0.72
Mentorship Culture	4.25	0.63
Strategic Foresight	4.17	0.74
Leadership Effectiveness	4.20	0.58

The results indicate strong agreement among respondents.
The highest mean score was reported for **mentorship culture**, suggesting that respondents strongly associate leadership effectiveness with guidance-based and developmental leadership practices.

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

Table 2: Correlation Analysis

Variable	Leadership Effectiveness
Ethical Leadership	0.53
Duty Orientation	0.21
Mentorship Culture	0.19
Strategic Foresight	0.28

The correlation coefficient of **0.53** indicates a moderate positive relationship between ethical leadership and leadership effectiveness.
This supports the hypothesis.

5. Discussion

The findings indicate that Indian leadership constructs remain highly relevant in professional contexts, particularly within academic institutions.
The strong score for mentorship culture reflects the continued significance of the Guru-Shishya model in educational leadership.
Similarly, the positive relationship between ethical leadership and effectiveness aligns with the *Bhagavad Gita's* emphasis on *Dharma* and value-based action.
These findings suggest that leadership frameworks rooted in Indian knowledge traditions may enhance organizational trust, conflict resolution, and sustainable governance.

6. Findings

The empirical analysis reveals several important insights regarding the applicability of Indian Knowledge Traditions in contemporary leadership and management settings.
First, the consistently high mean scores across all variables indicate that respondents perceive indigenous leadership principles as highly relevant in modern academic institutions. In particular, **mentorship culture (M = 4.25)** emerged as the most strongly endorsed dimension. This reflects the enduring relevance of the **Guru-Shishya tradition**, which emphasizes guided learning, developmental leadership, and the cultivation of long-term institutional values.
Second, the moderate positive correlation between **ethical leadership and leadership effectiveness (r = 0.53)** suggests that leadership rooted in ethics, responsibility, and value-based decision-making contributes meaningfully to perceived organizational success. This finding is aligned with the *Bhagavad Gita's* concept of **Dharma**, where leaders are expected to act with integrity and duty-consciousness.
Third, respondents also reported strong agreement with **duty orientation and strategic foresight**, indicating that decision-making models inspired by Indian knowledge systems remain professionally applicable. The influence of Kautilya's strategic principles from the *Arthashastra* can be observed in contemporary management functions such as planning, governance, and risk anticipation.
Overall, the findings indicate that Indian knowledge traditions are not merely philosophical constructs but operationally relevant frameworks for leadership development and management effectiveness in present-day institutions.

7. Managerial Implications

The findings of the study offer meaningful implications for leadership development and organizational management.
a. Leadership Development Programs
Educational institutions and corporate organizations may integrate Indian leadership philosophies into formal leadership development modules. Concepts such as duty-based leadership, emotional balance, and ethical governance can enrich existing leadership training frameworks.
b. Mentorship Systems
The strong response toward mentorship culture suggests that organizations should strengthen formal and informal mentoring structures. The Guru-Shishya model may be adapted into faculty induction, management training, and succession planning initiatives.
c. Ethical Governance
The moderate positive association between ethical leadership and effectiveness underscores the need for ethics-centered administrative practices. Institutions may incorporate value-based decision frameworks in governance policies.
d. Strategic Management
Insights from the *Arthashastra* may inform modern strategic management practices such as long-term planning, crisis management, negotiation, and resource optimization.
These implications are especially relevant for higher education institutions where leadership demands both administrative competence and human-centered guidance.

https://www.gapgyan.org/

8. Conclusion

The present study reinforces the relevance of Indian Knowledge Traditions as a culturally grounded and professionally applicable framework for contemporary leadership and management practices.

The findings indicate that academic professionals strongly recognize the significance of ethical leadership, mentorship culture, duty orientation, and strategic foresight in effective institutional management. Among these, mentorship and ethical leadership emerged as particularly influential dimensions.

The study contributes to the growing discourse on indigenous management thought by demonstrating that classical Indian concepts continue to possess substantial practical relevance in present-day organizational contexts.

By integrating principles from the *Bhagavad Gita*, *Arthashastra*, and traditional pedagogical systems, institutions can develop leadership models that are not only efficient but also ethically sustainable and culturally resonant.

Future studies may expand the sample size, include professionals from corporate sectors, and employ advanced statistical techniques such as regression or structural equation modeling to further validate these relationships.

9. References

[1] Agarwal, H., & Rastogi, N. K. (2021). Management leadership and Bhagwat Gita. *Zenodo*. https://doi.org/10.5281/zenodo.5816498

[2] Basu, M. (2019). A study on the Bhagavad Gita: Management insight. *Management Insight*.

[3] Chakraborty, A. (2022). Bhagabat Gita and leadership: A correlation between the ultimatum of reality and leadership in organizations. *Asian Journal of Management*, 13(4).

[4] Chitrao, P. V. (2025). The Ramayana and Bhagavad Gita as training grounds for leadership in contemporary business environments. *Cogent Business & Management*.

[5] Hee, C. H. (2007). A holistic approach to business management: Perspectives from the Bhagavad Gita. *Singapore Management Review, 29*(1), 73-84.

[6] Jain, R. (2023). Personal leadership: Insights from the Bhagavad-Gita. *DME Journal of Management*.

[7] Kautilya. (2000). *Arthashastra* (R. Shamasastry, Trans.). Mysore Printing and Publishing House.

[8] Kuknor, S. (2021). Me-leader versus we-leader: Bhagavad Gita perspectives on transformational leadership. *Purushartha Journal*.

[9] Mukherjee, S. (2017). Bhagavad Gita: The key source of modern management. *Asian Journal of Management, 8*(1), 68-72. https://doi.org/10.5958/2321-5763.2017.00010.5

[10] Nayak, A. K. (2018). Effective leadership traits from Bhagavad Gita. *International Journal of Indian Culture and Business Management, 16*(1), 1-14.

[11] Patel, A. N. (2024). Bhagavad Gita and modern management practices: A study. *Research Review Journal of Indian Knowledge Systems*.

[12] Behl, M., & Pattnaik, C. (2023). Relevance of the Guru-Shishya parampara to modern-day mentorship. *ResearchGate Preprint*.

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

"LEADERSHIP STYLES IN THE BHAGAVAD GITA AND THEIR RELEVANCE TO MODERN MANAGEMENT THEORIES"

MS. UNNATI ABHAYBHAI SHAH
[B.COM (GOLD MADALIST), M.COM, GSET]
E-MAIL ID: uashah30@gmail.com,
MOBILE NO: +91 9327749191
ASSISTANT PROFESSOR, FACULTY OF FINANCE AND ACCOUNT,
SHREE SWAMINARAYAN COLLEGE OF COMMERCE AND MANAGEMENT

Abstract

In this research, the leadership ideas presented in the Bhagavad Gita are examined, as well as the relevance of these ideas to contemporary management theories in the business field. It is essential for companies to address problems that include moral dilemmas, employee stress, and the need to be successful in the dynamic business world of today. Therefore, the need to have efficient leadership that incorporates moral values arises. The Bhagavad Gita, through the dialogue between Krishna and Arjuna, which represents moral dilemma and making decisions under pressure, provides important leadership advice that has stood the test of time.

Guided by the results of the comparative analysis of modern leadership theories, including transformational, transactional, servant, and ethical leadership, and the analysis of the specific provisions of the Bhagavad Gita, the research uses the qualitative method of research, focusing on the key leadership philosophies presented in the Bhagavad Gita, including transformational leadership through inspiration and vision, servant leadership through humility and service, ethical leadership through dharma (righteous duty), and self-leadership through the importance of inner stability and emotional control.

In accordance with the modern views of the importance of intrinsic motivation and long-term business success, the importance of Nishkama Karma, or selfless action without attachment to the outcome, is emphasized as one of the key leadership philosophies in the Bhagavad Gita, along with the practical applications of these philosophies in the field of corporate governance, human resource management, leadership, and crisis management.

The results suggest that there is a comprehensive framework for leadership presented in the Bhagavad Gita that considers strategic, psychological, and ethical aspects. The study leads to a conclusion that these ideas can be used to improve contemporary management techniques to ensure sustainability and effectiveness.

INTRODUCTION

The success of any organization depends on the quality of leadership. The volatility, uncertainty, complexity, and ambiguity of today's corporate world require leaders who are not only strategic thinkers but also morally upright and emotionally balanced.

The meeting between Lord Krishna and Arjuna on the battle field of Kurukshetra, as depicted in the ancient Indian philosophical work "Bhagavad Gita," presents a number of important lessons for leaders. The moral predicament of Arjuna, the protagonist, presents a metaphor for the predicament of leaders in general. The teachings of Lord Krishna present important guidelines that are remarkably similar to the teachings of modern leadership philosophies.

This paper, through a study of the leadership styles as depicted in the "Bhagavad Gita" and how they are applicable to today's corporate world, aims to bridge the gap between ancient spiritual knowledge and modern management techniques.

2. Literature Review

The Bhagavad Gita is discussed in a research by Jaiswal and Rao (2014) as an effective source of leadership concepts applicable in modern-day business. In this research, some of the vital ideas discussed include Nishkama Karma (selfless action) and Dharma (righteous duty), which highlight the importance of ethical responsibility and non-attachment to results in effective leadership. Further, through Arjuna's dilemma and Krishna's counsel, the writers highlight the importance of emotional stability and self-control. The research concludes that with the integration of moral, psychological, and spiritual dimensions in leadership practices, the Gita provides an integrative framework of effective leadership beyond modern theories of transformational and ethical leadership.

By studying concepts presented in the eighteen chapters (Adhyayas) of the Bhagavad Gita, Dave (2019) seeks to explore it as an exhaustive guide for management. The focus is on the valuable advice that is provided in terms of cooperation, leadership, decision-making, and conflict resolution. The values of self-control, responsibility

https://www.gapgyan.org/

(Dharma), and detachment from results (Nishkama Karma) are identified as significant qualities for effective leadership. It is concluded that valuable lessons are provided in the Gita that assist leaders in maintaining ethical behaviour, emotional balance, and mental clarity in adverse business situations. The conclusion is that valuable management lessons are provided in the Gita that are extremely relevant for effective leadership in contemporary businesses.

The Bhagavad Gita is one of the important sources of modern management principles, according to the research by Mukherjee (2017), which emphasizes the significance of the Bhagavad Gita in developing successful leadership. The important principles such as self-understanding, discipline, and moral judgment are emphasized in the research as important qualities in leadership. The Bhagavad Gita also emphasizes Nishkama Karma and Karma Yoga, which inspires the leader to perform his/her duty without any expectation of results. The author argues that the Bhagavad Gita provides an integrated approach to leadership by combining spiritual knowledge and valuable managerial techniques. According to the research study, the principles and lessons provided in the Bhagavad Gita are effective in improving the leadership effectiveness in modern business organizations by promoting the development of mental clarity and emotional stability.

In the study on the applicability of the Bhagavad Gita to modern management principles, Patel (2024) focuses on the significance of the Gita in relation to moral and competent leadership. The study centers on significant concepts that affect decision-making, leadership, and organizational behavior, such as Karma Yoga (activity), Jnana Yoga (knowledge), and Bhakti Yoga (devotion). The author discusses how concepts such as Dharma (righteous duty) and Nishkama Karma (selfless deed) enable leaders to maintain moral ethics, increase motivation, and effectively manage challenges in the workplace. The study leads to the conclusion that the adoption of Gita principles in modern management can improve organizational success, employee engagement, and leadership competence.

The study by Shukla & Dwivedi (2024) deals with managerial ideas that have been developed from ancient Indian texts, especially the Bhagavad Gita. The study shows that the Gita provides valuable insights on corporate behavior, work ethics, and management. It also shows that concepts such as control, emotional control, and Dharma (a sense of duty) are essential in effective management. The authors also discuss Nishkama Karma, or selfless action, which is also an essential tool in reducing stress levels and increasing productivity by motivating people to focus on efforts rather than results. According to the study, if ancient philosophical ideas are used in modern management techniques, it could be more effective in terms of moral management, employee satisfaction, etc.

The relevance of the principles of the Bhagavad Gita in the context of moral leadership in modern corporate governance is analyzed in the research study undertaken by Monika et al. (2024). The significance of the research study is the way it illustrates the possibilities that exist for ethically correct decision-making in corporate governance by embracing the principles of the Bhagavad Gita, such as the concept of Dharma (righteous duty), integrity, and Nishkama Karma (selfless action). The research study concludes that the principles of the Bhagavad Gita are highly relevant in the context of modern business management and leadership.

3. Research Methodology

The study examines the philosophies of leadership discussed in the Bhagavad Gita and their relevance in relation to modern management theory. A qualitative method of research is used in this study. Unlike other research methods, in qualitative research, more emphasis is placed on interpretation than on measurement.

3.1 Data Collection

The following are the various sources of secondary data used in the study:

Scholarly articles and essays on management and leadership

Bhagavad Gita books

Studies on the contrast between modern management styles and antiquated ideologies

Management literature on servant, transactional, transformational, and moral leadership

3.2 Research Methods

Qualitative methods that are applied are as follows:

1. Bhagavad Gita Textual Analysis

A detailed analysis of the relevant chapters and verses of the Gita to identify concepts of leadership, such as self-leadership, emotional control, Nishkama Karma (selfless deed), and Dharma (righteous duty). Analyse the dialogue between Krishna and Arjuna to understand the moral and psychological pressure of decision-making.

2. A Comparative Study of Contemporary Leadership Theories

The practical applicability of concepts from the Gita to contemporary theories of leadership, such as servant, transformational, transactional, and ethical leadership. The differences and similarities, and how they can be improved, from contemporary theories of management.

3. Interpretation of Concepts

The construction of a conceptual framework that relates concepts of Gita-based theories of leadership to contemporary needs of organizations. The useful implications for crisis management, human resource management, and corporate governance.

3.3 Justification

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

Since the purpose of this study is to explore value-based, ethical, and psychological aspects of leadership, all of which are innately interpretative and non-quantifiable, a qualitative approach for this study would be appropriate. It will help to achieve a deep understanding of traditional knowledge and its usage in contemporary organizational contexts.

4. The Bhagavad Gita's Leadership Styles

The Bhagavad Gita provides an in-depth guide to effective leadership with an emphasis on moral responsibility, self-discipline, and inspirational leadership. There are several leadership styles evident in this text, which are highly relevant to modern management through the conversation between Krishna and Arjuna. These are strategic, psychological, and moral in nature.

4.1 Transformational Leadership

Krishna is an exemplary model of a transforming leader because

"Yad yad ācharati śhreṣhṭhas tat tad evetaro janaḥ
Sa yat pramāṇaṁ kurute lokas tad anuvartate."

[Bhagavad Gita - Chapter 3, Verse 21]

Translation: Whatever action a great person performs, others follow; the standards they set become benchmarks for society.

He motivates Arjuna to work towards a higher goal beyond his circumstances

He presents a vision that fosters spiritual growth

He inculcates self-awareness in Arjuna

Current Relevance: Transformational leaders inspire their members to contribute to the organization by aligning organizational goals with personal values.

4.2 Servant Leadership

Krishna is the epitome of Servant Leadership in the following ways:

He was Arjuna's charioteer, which represents service and humility

He led Arjuna without imposing any control or authority

Relevance in Today's World: Servant Leadership that prioritizes the well-being and development of employees through service and guidance helps build corporate cohesion.

4.3 Dharma-Based Leadership, or Ethical Leadership

Krishna emphasizes the importance of 'Dharma' or moral responsibility in the following ways:

"Tejaḥ kṣhamā dhṛitiḥ śhaucham adroho nātimānitā
Bhavanti sampadaṁ daivīm abhijātasya bhārata."

[Bhagavad Gita - Chapter 16, Verse 3]

Translation: Vigor, forgiveness, fortitude, purity, absence of malice, and humility are qualities of a noble leader.

Moral values over personal interests

Ethical decisions even in adverse situations

Relevance in Today's World: Ethical Leadership in corporate governance and decision-making ensures the integrity and viability of the organization.

4.4 Emotional Intelligence and Self-Leadership

Emotional Stability (Equanimity)

Arjuna's conflict is an example of the importance of self-leadership in the face of:

"Yoga-sthaḥ kuru karmāṇi saṅgaṁ tyaktvā dhanañjaya
Siddhy-asiddhyoḥ samo bhūtvā samatvaṁ yoga uchyate."

[Bhagavad Gita - Chapter 2, Verse 48]

Translation: Perform your duties with a balanced mind, abandoning attachment to success and failure. Such equanimity is called Yoga.

This stanza emphasizes the need for emotional stability and poise, especially in leadership roles, whether in success or failure. For logical thinking to take place in crisis situations, this is vital.

Relevance to Current Relevance: The stanza is relevant to Daniel Goleman's theory of emotional intelligence, especially the concept of self-regulation, which is vital in managing uncertainty and instilling team confidence.

Self-Leadership (Self-Mastery)

"Uddhared ātmanātmānaṁ nātmānaṁ avasādayet
Ātmaiva hyātmano bandhur ātmaiva ripur ātmanaḥ."

[Bhagavad Gita - Chapter 2, Verse 48]

Translation: Elevate yourself through your own mind; do not degrade yourself. The mind alone is the friend of the self, and the mind alone is the enemy of the self.

This poem emphasizes the importance of controlling ideas, emotions, and behavior and the significance of self-mastery as a prerequisite of good leadership.

Relevance in the Present: This poem is relevant to the present in the context of the concepts of self-leadership and authentic leadership, which are enabled by personal resilience and internal consistency of decision-making.

4.5 Intrinsic Motivation and Nishkama Karma

The Nishkama Karma philosophy teaches:

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

"Karmanye vadhikaraste ma phaleshu kadachana
Ma karma phala hetur bhur ma te sango 'stv akarmani."
[Bhagavad Gita - Chapter 2, Verse 47]
Translation: You have the right to perform your duties, but not to the fruits of your actions.
Diligently performing tasks without regard to results
Effort is more important than rewards and recognition
Relevance in the Modern Era: Encouraging intrinsic motivation is essential in the long-term success of organizations because it reduces stress, avoids burnout, and ensures sustained performance.

5. A Comparative Study of Contemporary Leadership Theories

There are a number of contemporary management theories, such as transformational, servant, ethical, and self-leadership theories, that are highly consistent with the concepts of leadership as defined in the Bhagavad Gita. Organizations may benefit from a comparative study of these theories.

5.1 Transformational Leadership

Modern Theory: Bass (1985) created the concept of transformational leadership. This form of leadership is centered on motivating others, fostering creativity, and effecting substantial change. Vision, drive, mental stimulation, and individualized consideration are key elements.

Gita Alignment:

By providing Arjuna with a sense of greater purpose and vision, Krishna is able to motivate him past his fears and doubts.

It promotes personal development and self-realization, much like motivating your employee toward their highest potential.

It fosters commitment to moral action, integrating personal ideals with organizational goals.

Comparative Analysis: Both styles of leadership focus on vision-based leadership that inspires individuals toward transcending their immediate tasks. However, with the inclusion of Dharma (righteousness) and selflessness, which is not emphasized in transformational leadership, there is also a spiritual component.

5.2 Servant Leadership

Modern Theory: Greenleaf (1977) proposed the theory of servant leadership, which emphasizes the growth, well-being, and empowerment of the followers. Instead of authoritarian leaders, servant leaders are mentors.

Gita Alignment:

He acts as a mentor to Arjuna, who is the charioteer, placing Arjuna's needs above his.

He promotes learning through guidance, not coercion, to foster individual responsibility.

"Saktāḥ karmany avidvāṁso yathā kurvanti bhārata
Vidyāwān vidwāṁs tathāsaktaśh chikīrṣhur loka-saṅgraham."
[Bhagavad Gita - Chapter 3, Verse 25]
Translation: While the ignorant act with attachment, the wise act without attachment for the welfare of society.

Comparative Analysis: Both servant leadership by Krishna and the leadership by Krishna in the Gita emphasize the importance of empowerment, humility, and service. By adding the dimension of duty and selfless service (Nishkama Karma) to the Gita, employee-centered leadership gains a moral dimension.

5.3 Dharma-Based Leadership, or Ethical Leadership

Contemporary Theory: Integrity, justice, responsibility, and moral judgment are integral components of ethical leadership. Leaders in companies are expected to be an example of moral behavior (Brown et al., 2005).

Gita Alignment:

Reiterates the importance of acting in accordance with Dharma, as opposed to self-interest, in several places in the Gita.

Requires decisions to be made with integrity, irrespective of circumstances.

Advocates detachment from the outcome of actions to focus on moral action.

Comparative Analysis: Both leadership models place significant emphasis on moral action, though the Gita links ethics with all aspects of decision-making, whereas contemporary theory focuses on corporate governance.

5.4 Emotional Intelligence and Self-Leadership

Current Theory: Goleman (1998) states that self-awareness, self-regulation, and internal motivation are key leadership competencies in the theory of self-leadership and emotional intelligence. Proper management of emotions enables leaders to make better decisions, thus improving their team performance.

Gita Alignment:

Arjun's doubts and worries are an illustration of the challenges leaders encounter.

Lord Krishna offers models for gaining emotional stability in his teaching on self-control, concentration, and focus.

It encourages disengagement from stressful circumstances, which is in line with resilience and stress management techniques in contemporary businesses.

Comparative Analysis: The Gita, which focuses on internal mastery for external success, can be used in conjunction with contemporary models of emotional intelligence, which focus on behavioral skills.

5.5 Theories of Nishkama Karma and Motivations

https://www.gapgyan.org/

Modern Theory: Intrinsic motivations, autonomy, and purposeful work are emphasized as important considerations that affect engagement and performance, as seen in contemporary theories of motivation, such as Deci & Ryan's Self-Determination Theory (2000).

Gita Alignment:

Nishkama Karma theory focuses on the value of effort as a reward and the need to perform tasks irrespective of results.

It promotes purposeful behavior in leaders and followers, resulting in reduced anxiety and long-term drive.

Comparative Analysis: The Gita, in a way, predicted contemporary theories of intrinsic motivations and yet added a spiritual and moral dimension to it, focusing on the need for a sense of responsibility for long-term success.

Conclusion of Comparative Analysis:

The principles of the Bhagavad Gita complement and enrich modern leadership theories by incorporating ethical, psychological, and spiritual dimensions. While contemporary models emphasize outcomes, performance, and follower behaviour, the Gita emphasizes moral responsibility, self-mastery, and purpose-driven action, offering a holistic approach to sustainable leadership.

6. Useful Applications in Contemporary Organizations

The leadership principles of the Bhagavad Gita are highly applicable and useful for the management of contemporary organizations. The concepts of the Bhagavad Gita are useful for the management of organizations, as they incorporate the ethical, psychological, and motivational aspects of a leader.

6.1 Corporate Governance

Application of Dharma and Ethical Leadership: Dharma-based leaders are highly ethical and give priority to ethical values rather than their personal interests. Therefore, Dharma-based leaders are open and responsible.

Making Decisions Under Pressure: The guidance of Krishna to Arjuna represents the ethical and right way of making decisions in a state of crisis, and this may inspire leaders to settle conflicts and disputes while being highly ethical.

Sustainability and Trust: Organizations may establish trust and sustainability in the long term by giving high priority to moral values and performing altruistic deeds (Nishkama Karma).

For example, business leaders may avoid financial crises and establish a culture of integrity-driven leadership by incorporating ethical decision-making models.

6.2 Management of Human Resources (HRM)

Employee Motivation and Engagement: Nishkama Karma's emphasis on employees' prioritizing effort and skill development over motivation and reward encourages intrinsic motivation.

Servant Leadership Practices: Building trust and loyalty among employees by prioritizing employees' well-being and providing advice and mentoring can benefit the organization.

Conflict Management: The application of emotional intelligence and self-leadership principles helps managers manage conflicts by promoting empathy, tolerance, and understanding.

For instance, training programs that promote self-control, emotional control, and moral judgment can lead to better employee satisfaction and output.

6.3 Training and Development of Leadership

Transformational Leadership Training: Krishna's approach emphasizes the importance of motivation, goal-setting, and self-improvement. Transformational leadership qualities can be inculcated in modern-day leaders through activities such as vision-setting, mentorship, and storytelling.

Self-Leadership Training: Self-leadership training can focus on self-improvement, mindfulness, and stress management through activities such as those learned from Arjuna's introspective dilemma.

Ethical Awareness Training: Managers can be encouraged to make ethical and socially responsible decisions through Gita-based ethical training incorporated in management training.

For example, activities such as 'Nishkama Karma' can be incorporated in management training to encourage managers to act with ethics without caring for accolades.

6.4 Handling Emergencies

Making Decisions in Uncertainty: The debate in the Gita shows how decisions are taken in uncertain and morally and psychologically challenging circumstances. Such a model may be used by leaders to deal with difficult corporate situations.

Resilience and Emotional Stability: The advice of Krishna highlights the need for emotional stability and logical thinking in crisis situations, and this is a key factor for success in crisis leadership.

Long-Term Perspective: Crises may be managed in a long-term, value-driven manner by giving more importance to accountability and moral behaviour than to profits.

For example, a leader may use the strategies from the Gita debate to balance short-term and long-term considerations in reorganizing the company or in a turbulent market situation.

6.5 Organizational and Strategic Alignment

Vision and purpose integration: Both transformational and Gita-based leadership styles highly value linking organizational goals with morals and values of employees.

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

Culture building: A united, focused, and purpose-driven employee group could be created by integrating selfless action, morals, and emotional intelligence into organizational culture.
Sustained performance: The Gita's philosophy could be used to ensure sustained productivity among organizational groups by inculcating constant efforts in work with no attachment to outcomes.
For example, organizations could include employee wellness programs, mentor programs, and ethics codes to align value-based leadership with organizational goals.

7. Discussion

The Bhagavad Gita offers a holistic approach to leadership that encompasses ethical, psychological, and motivational aspects, as seen in the comparative analysis and practical applications. Elements such as vision, service, and emotional intelligence are emphasized by contemporary theories of leadership, including transformational, servant, ethical, and self-leadership. However, the inclusion of inner drive or Nishkama Karma, moral duty or Dharma, and inner self-mastery sets the Bhagavad Gita apart.
Key Insights:
1. Ethical Integration: Modern management practices often neglect moral and spiritual issues in favour of achieving corporate goals. The Gita offers an approach to prevent organizational unethical behaviour and promote corporate governance by underlining the importance of ethical decision-making in leadership.
2. Self-Leadership and Resilience: The inner conflict experienced by Arjuna emphasizes the significance of emotional intelligence and self-leadership, skills that are becoming increasingly important in managing workplace stress and making decisions.
3. Motivation and Performance: Nishkama Karma supports performance based on effort with reduced levels of stress and burnout, and the absence of goal-related pressure, in line with modern intrinsic motivation theories.
4. Universal Applicability: The principles provide long-term guidance for sustainable and successful leadership because they are universally applicable to all sectors and levels of organizations and leadership issues.
Thus, it is clear that the discussion in the conversation illustrates the potential of integrating Gita-based concepts into modern management practices and their long-term implications for organizational success and ethics in the workplace.

8. Conclusion

The above study indicates that Bhagavad Gita offers an exhaustive guide to leadership which is highly relevant in today's management scenario. Key contributions include:
Transformational Leadership – Motivating, individual development, and value-based leadership.
Servant Leadership – Employing humility in caring for and directing subordinates.
Ethical Leadership – Making ethical judgments and behaving in accordance with Dharma.
Self-Leadership and Emotional Intelligence – Emotional stability and intra-personal conflict management.
Nishkama Karma and Motivation – Inspiring resiliency, stress management, activity-oriented behaviour, and self-motivation.
The above ideas can be incorporated into modern management theories to groom moral, ethical, and efficient leaders capable of dealing with challenging situations and promoting growth and well-being of subordinates.
Future Extent:
The measurable impacts of Gita-based leadership on organizational success may be explored through empirical studies.
The concepts may be incorporated into leadership development programs to enhance employees' intrinsic and moral motivations.
Summing up, the Bhagavad Gita presents universal concepts for ethical, resilient, and sustainable leadership by bridging the divide between ancient philosophy and modern management.

9. Suggestions

Following are the suggestions put out for modern-day organizations based on the comparative study and real-world application of leadership principles derived from the Bhagavad Gita:
9.1 Value-Based and Ethical Leadership
To uphold ethical standards in every organizational activity, motivate your leadership to make decisions based on 'dharma.'
To develop organizational guidelines and rules that promote ethical behaviour in all managerial roles.
To inculcate more accountability and trust in the leadership, include ethics in leadership training.
9.2 Servant and Transformational Leadership
To develop transformational leadership qualities, motivate employees to develop themselves as individuals and set organizational visions.
To apply servant leadership theories, put employees' empowerment, guidance, and welfare first and organizational hierarchy later.
To develop mentoring and coaching skills in leadership to develop motivating leadership styles.

https://www.gapgyan.org/

9.3 Promote Emotional Intelligence and Self-Leadership
Run training programs to enhance the emotional intelligence and self-leadership skills of the managers.
For better decision-making skills in times of crisis, one can make use of techniques such as situational role-play and reflective exercises.
Encourage the employees to make better use of techniques that promote self-leadership in the context of Arjuna's teachings.
9.4 Use Nishkama Karma to Encourage Intrinsic Motivation
Instruct the employees to be motivated by the value of effort, purpose, and competence rather than the value of reward and achievement.
Develop a culture of achievement that emphasizes the value of learning, dedication, and morality in the workplace.
In this way, one can avoid burnout and stress in the workplace.
9.5 Incorporate Gita-Based Concepts in Leadership Development
Develop leadership development programs, such as training courses, workshops, etc., using the concepts of Bhagavad Gita, which include self-leadership, ethics, and motivating factors.
Use Gita-based concepts to solve organizational issues.
Suggest to managers that they use a framework that is purpose-driven as well as value-driven to mentor their staff members.
9.6 Achieving Organizational Effectiveness through Strategic Implementation
Use Gita-based concepts for aligning organizational goals with ethics, motivating factors, and emotional factors.
Use Gita-based frameworks to implement strategic plans, manage changes, and resolve crises.
Use moral responsibility, intrinsic motivation, and emotional intelligence to build organizational sustainability.
Conclusion of Suggestions:
Ethical, resilient, and value-based leaders could be developed by integrating concepts of leadership from the Bhagavad Gita into modern organizational practices. Organizations could achieve sustainable growth, employee engagement, and long-term competitive advantage with intrinsic motivation, self-leadership, and employee-centric management.

10. References

[1] Bass, B. M. (1985). Leadership and performance beyond expectations. Free Press.
[2] Brown, M. E., Treviño, L. K., & Harrison, D. A. (2005). Ethical leadership: A social learning perspective for construct development and testing. Organizational Behavior and Human Decision Processes, 97(2), 117–134.
[3] Dave, B. (2019). Management insights from the 18 Adhyayas of the Bhagavad Gita. International Journal of Research and Analytical Reviews.
[4] Deci, E. L., & Ryan, R. M. (2000). The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior. Psychological Inquiry, 11(4), 227–268.
[5] Goleman, D. (1998). Working with emotional intelligence. Bantam Books.
[6] Greenleaf, R. K. (1977). Servant Leadership: A journey into the nature of legitimate power and greatness. Paulist Press.
[7] Jaiswal, U., & Rao, K. N. (2014). Leadership lessons from Bhagavad Gita. Dev Sanskriti Interdisciplinary International Journal.
[8] Monika, et al. (2024). Relevance of the Bhagavad Gita's teachings on ethical leadership in modern corporate governance. Journal of Social Review and Development.
[9] Mukherjee, S. (2017). Bhagavad Gita: The key source of modern management. Asian Journal of Management.
[10] Patel, A. N. (2024). Bhagavad Gita and modern management practices: A study. Research Review Journal of Indian Knowledge Systems, 1(1), 34–43.
[11] Shukla, S., & Dwivedi, P. K. (2024). Management concepts from ancient Indian scriptures with special reference to Bhagavad Gita. Library Progress International.

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

Leadership Lessons from the Bhagavad Gita: Implications for Ethical and Transformational Leadership in Modern Organizations

Dr. Vihang Desai
Assistant Professor, Department of Commerce,
Gyanmanjari Innovative University, Bhavnagar.
vihang4desai@gmail.com

Abstract

The growing complexity of modern organizations has increased the need for ethical, value-oriented, and transformational leadership. Contemporary leaders are expected not only to achieve organizational goals but also to maintain integrity, inspire employees, and make responsible decisions during uncertainty and crisis. In this context, the Bhagavad Gita offers significant insights for leadership and management. Through the dialogue between Lord Krishna and Arjuna, the text presents timeless principles such as self-awareness, duty, emotional balance, ethical conduct, selfless action, and inspirational guidance.

The present study examines the leadership lessons contained in the Bhagavad Gita and analyses their implications for ethical and transformational leadership in modern organizations. The study is descriptive and conceptual in nature and is based entirely on secondary data. Relevant information has been collected from books, research journals, published articles, conference papers, and commentaries on the Bhagavad Gita and leadership theories.

The study identifies major leadership dimensions reflected in the Bhagavad Gita, including duty-oriented leadership, Nishkama Karma, emotional intelligence, ethical decision-making, motivation, and crisis management. These teachings have been compared with the concepts of ethical leadership and transformational leadership. The findings reveal that the Bhagavad Gita provides a practical framework for developing responsible, value-based, and visionary leaders. The role of Lord Krishna as a guide and mentor closely resembles that of a transformational leader who inspires, influences, and develops followers.

The paper concludes that the Bhagavad Gita remains highly relevant in the modern business environment and can help organizations create an ethical work culture, motivated employees, and sustainable leadership practices.

Keywords: *Bhagavad Gita, Ethical Leadership, Transformational Leadership, Modern Organizations, Karma Yoga*

INTRODUCTION

Leadership plays a crucial role in determining the success, sustainability, and effectiveness of modern organizations. In the contemporary business environment, leaders are expected not only to achieve organizational objectives but also to maintain ethical standards, motivate employees, manage conflicts, and guide organizations through uncertainty and crisis. However, increasing competition, technological changes, work pressure, and ethical challenges have made leadership more complex than ever before. As a result, organizations are now searching for value-based and transformational leadership approaches that can ensure both organizational performance and human well-being.

In this context, ancient Indian philosophy provides significant insights for modern management. The Bhagavad Gita, one of the most influential philosophical and spiritual texts of India, offers a comprehensive understanding of leadership, decision-making, responsibility, and human behaviour. The Bhagavad Gita consists of 18 chapters and 700 verses and presents a dialogue between Lord Krishna and Arjuna on the battlefield of Kurukshetra. Faced with confusion, fear, and moral dilemma, Arjuna becomes unable to perform his duty. Lord Krishna then guides him by explaining the importance of duty, self-awareness, ethical conduct, emotional control, and selfless action.

The teachings of the Bhagavad Gita are not limited to religion or spirituality alone; they are equally relevant to organizational leadership and management. Lord Krishna emerges as an ideal leader, mentor, and motivator who transforms Arjuna's thinking and inspires him to act with confidence and responsibility. Similarly, modern leaders are expected to influence, guide, and transform their followers through vision, ethics, and inspiration.

The present study attempts to examine the leadership lessons contained in the Bhagavad Gita and to analyze their relevance to ethical and transformational leadership in modern organizations. The study also seeks to demonstrate that the principles of the Bhagavad Gita can provide an effective framework for responsible, sustainable, and value-oriented leadership in the contemporary workplace.

3. REVIEW OF LITERATURE

3.1 Mulla and Krishnan (2006) developed the concept of Karma-Yoga leadership based on the Bhagavad Gita. They stated that leaders should perform their duties sincerely without attachment to personal rewards. Their

https://www.gapgyan.org/

study found that selfless action and responsibility increase trust, commitment, and leadership effectiveness in organizations.

3.2 Bass and Riggio (2006) discussed the concept of transformational leadership and identified four major dimensions: idealised influence, inspirational motivation, intellectual stimulation, and individualized consideration. Although their study was not directly related to the Bhagavad Gita, these dimensions closely resemble the role of Lord Krishna in guiding and transforming Arjuna.

3.3 Rarick and Nickerson (2008) analyzed the Bhagavad Gita as a source of leadership principles for modern business organisations. They observed that Lord Krishna's guidance to Arjuna reflects qualities such as motivation, ethical conduct, and crisis management. The authors concluded that the Bhagavad Gita can be used as an important framework for managerial decision-making.

3.4 Dhiman (2015) emphasised that the Bhagavad Gita promotes value-based leadership and spiritual intelligence. According to the author, qualities such as integrity, self-control, emotional balance, and compassion are essential for effective leadership. He further stated that modern organisations need leaders who combine professional competence with moral values.

3.5 Sharma (2017) studied the relationship between spirituality and management in India. The study highlighted that the teachings of the Bhagavad Gita are highly relevant in reducing workplace stress and improving leadership effectiveness. Sharma argued that principles like Nishkama Karma and self-awareness help leaders maintain mental stability and better decision-making.

3.6 Northouse (2018) explained that effective leadership requires vision, emotional intelligence, communication, and ethical behaviour. His study highlighted that transformational leaders influence followers by creating confidence and purpose. These ideas are similar to the teachings of the Bhagavad Gita, where Lord Krishna motivates Arjuna to overcome confusion and perform his duty.

3.7 Singh (2019) examined ethical leadership from the perspective of Indian philosophy. The study revealed that the Bhagavad Gita encourages leaders to make decisions based on justice, honesty, and social welfare. Singh concluded that organizations can improve their ethical culture and employee trust by adopting Bhagavad Gita-based leadership values.

4. RESEARCH GAP

Although several researchers have discussed the relevance of the Bhagavad Gita to management, spirituality, and leadership, most studies are limited either to ethical values or to transformational leadership separately. Very limited research has attempted to establish a direct relationship between the leadership principles of the Bhagavad Gita and both ethical and transformational leadership in modern organizations. Furthermore, previous studies have not adequately explained how these principles can be practically applied in contemporary organizational settings. Therefore, the present study seeks to bridge this gap by examining the implications of Bhagavad Gita-based leadership for ethical and transformational leadership in modern organizations.

5. OBJECTIVES

To examine the major leadership principles described in the Bhagavad Gita.
To analyze the relevance of these principles to ethical leadership.
To study the relationship between the teachings of the Bhagavad Gita and transformational leadership.
To explore the applicability of Bhagavad Gita-based leadership in modern organizations.
To suggest a value-based leadership framework for organizational success.

6. RESEARCH METHODOLOGY:

The present study is descriptive and conceptual in nature. It is based entirely on secondary data.
Secondary information has been collected from:
Books and commentaries on the Bhagavad Gita
Research journals and articles on leadership and management
Conference papers
Published theses and dissertations
Online databases, websites, and academic publications
The collected information has been analyzed qualitatively in order to identify leadership principles from the Bhagavad Gita and compare them with modern concepts of ethical and transformational leadership.

7. FINDINGS (LEADERSHIP LESSONS FROM THE BHAGVAD GITA)

7.1 SELF-AWARENESS AND SELF-MANAGEMENT

"Uddhared atmanatmanam natmanam avasadayet; Atmaiva hy atmano bandhur atmaiva ripur atmanah." (Chapter 6, Verse 5)

Meaning: A person should elevate oneself through one's own mind and not degrade oneself. The mind can be one's best friend or one's worst enemy.

This verse highlights the importance of self-awareness and self-management in leadership. A leader who understands and controls his own mind and behaviour becomes capable of guiding others effectively.

One of the most important teachings of the Bhagavad Gita is self-awareness. Lord Krishna encourages Arjuna to understand his true nature, strengths, responsibilities, and emotions. A leader who is aware of himself can manage stress, control emotions, and make better decisions.

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

In modern organizations, self-awareness helps leaders improve emotional intelligence, confidence, and communication. Leaders who know their strengths and weaknesses are more effective in managing teams and organizational challenges.

7.2 DUTY ORIENTED LEADERSHIP

"Svadharme nidhanam shreyah paradharmo bhayavahah." (Chapter 3, Verse 35)

Meaning: It is better to perform one's own duty imperfectly than to perform another's duty perfectly.

This verse emphasizes that leaders must remain committed to their own responsibilities and duties. Duty-oriented leadership is based on accountability, sincerity, and commitment.

The Bhagavad Gita emphasizes the concept of Dharma or duty. Lord Krishna advises Arjuna to perform his duty without fear or hesitation. A true leader focuses on responsibilities rather than personal gains.

Duty-oriented leadership encourages commitment, accountability, and discipline in organizations. Such leaders remain dedicated to organizational goals and inspire employees through their sincerity and hard work.

7.3 NISHKAMA KARMA: ACTION WITHOUT ATTACHMENT TO RESULTS

"Karmanye vadhikaraste ma phaleshu kadachana; Ma karma-phala-hetur bhur ma te sango 'stv akarmani." (Chapter 2, Verse 47)

Meaning: You have the right to perform your duty, but not to the fruits of your actions. Do not let the results become your motive, and do not become attached to inaction.

This is one of the most important teachings of the Bhagavad Gita and forms the basis of Nishkama Karma and selfless leadership.

The Bhagavad Gita teaches that individuals should perform their work sincerely without being excessively attached to the outcome. This principle is known as Nishkama Karma.

In modern organizations, leaders often experience stress because of targets, competition, and uncertainty. By focusing on effort and process rather than only results, leaders can maintain mental balance and encourage employees to work sincerely.

This principle reduces anxiety, promotes ethical behaviour, and improves job satisfaction.

7.4 ETHICAL DECISION-MAKING

"Yad yad acharati shreshthas tat tad evetaro janah; Sa yat pramanam kurute lokas tad anuvartate." (Chapter 3, Verse 21)

Meaning: Whatever a great person does, others follow. Whatever standards such a person sets, the world follows.

This verse explains that leaders influence the behaviour of others through their own conduct. Therefore, ethical decision-making and moral example are essential qualities of leadership.

The Bhagavad Gita strongly supports ethical conduct and righteousness. Lord Krishna guides Arjuna to take decisions based on justice, morality, and truth.

Ethical leadership is extremely important in modern organizations where issues such as corruption, misuse of power, dishonesty, and exploitation can damage reputation and trust. Leaders inspired by the Bhagavad Gita take decisions that are fair, transparent, and morally correct.

7.5 EMOTIONAL INTELLIGENCE AND CONTROL

"Dhyayato vishayan pumsah sangas teshu upajayate; Sangat sanjayate kamah kamat krodho 'bhijayate." (Chapter 2, Verse 62)

Meaning: When a person constantly thinks about worldly objects, attachment develops. From attachment comes desire, from desire arises anger.

This verse demonstrates the importance of controlling emotions, desires, and reactions. Leaders with emotional intelligence are able to remain calm and make rational decisions.

Arjuna experiences fear, confusion, and emotional instability before the war. Lord Krishna helps him overcome these emotions through wisdom and self-control.

Similarly, organizational leaders often face pressure, conflict, and uncertainty. Emotional intelligence enables leaders to understand their own emotions as well as those of others. Leaders who remain calm and balanced can handle crises more effectively.

7.6 MOTIVATION AND INSPIRATION

"Tasmat uttishtha kaunteya yuddhaya krita-nishchayah." (Chapter 2, Verse 37)

Meaning: Therefore, arise with determination and perform your duty.

Lord Krishna motivates Arjuna to overcome fear and act with confidence. This verse reflects the role of a leader as a motivator and guide.

Lord Krishna acts as a mentor and motivator for Arjuna. He inspires Arjuna by increasing his confidence, clarifying his purpose, and guiding him towards action.

Modern leaders must also motivate employees by providing direction, support, and encouragement. Inspirational leadership improves employee morale, productivity, and commitment.

7.7 CRISIS MANAGEMENT

"Sukha-duhkhe same kritva labhalabhau jayajayau; Tato yuddhaya yujyasva naivam papam avapsyasi." (Chapter 2, Verse 38)

Meaning: Treat happiness and sorrow, gain and loss, victory and defeat alike, and then engage in your duty.

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

This verse teaches leaders to maintain balance and stability during crisis situations. A leader who remains calm under pressure can guide the organization effectively.
The battlefield situation in the Bhagavad Gita represents a crisis. Arjuna becomes unable to take decisions due to emotional conflict. Lord Krishna demonstrates how a leader should guide others during difficult situations.
Effective crisis leadership requires calmness, vision, communication, and confidence. Modern organizations frequently face economic, technological, and social crises. The Bhagavad Gita teaches leaders to remain stable and focused even in adverse conditions.

8. ETHICAL LEADERSHIP & THE BHAGVAD GITA

Ethical leadership refers to leadership based on moral values, honesty, fairness, and integrity. The Bhagavad Gita provides a strong foundation for ethical leadership. The following ethical principles can be derived from the Bhagavad Gita:

Principle	Meaning in the Bhagavad Gita	Relevance in Organizations
Truthfulness	Acting according to truth and righteousness	Builds trust and transparency
Integrity	Consistency between words and actions	Improves credibility of leaders
Selflessness	Working for the welfare of others	Encourages teamwork and service
Responsibility	Performing one's duty sincerely	Strengthens accountability
Justice	Making fair decisions	Reduces conflict and discrimination

Ethical leadership inspired by the Bhagavad Gita creates a healthy work culture and enhances employee trust and organizational reputation.

8. IMPLICATIONS FOR MODERN ORGANIZATIONS

The leadership lessons of the Bhagavad Gita can be applied in various organizational situations:
Corporate organizations can use Bhagavad Gita-based values for ethical governance and decision-making.
Educational institutions can train future leaders through value-based leadership programmes.
Human resource departments can incorporate emotional intelligence and self-management into leadership development.
Organizations can improve employee motivation through inspirational and transformational leadership.
Business leaders can manage stress, conflict, and crisis more effectively through the principles of self-control and Nishkama Karma.
The Bhagavad Gita also encourages long-term thinking, sustainable development, and social responsibility, which are essential for modern organizations.

9. FINDINGS OF THE STUDY

The study reveals that the Bhagavad Gita provides a comprehensive and practical framework for leadership which remains highly relevant in the context of modern organizations. The leadership style demonstrated by Lord Krishna reflects the essential characteristics of both ethical and transformational leadership. Through his guidance to Arjuna, Lord Krishna acts not only as a mentor and motivator but also as a role model who inspires confidence, moral responsibility, and purposeful action.
The study further finds that the principle of Nishkama Karma, or action without attachment to results, is one of the most significant contributions of the Bhagavad Gita to modern leadership. This principle encourages leaders to perform their duties sincerely and responsibly without being excessively influenced by personal rewards or fear of failure. Such an approach reduces stress, improves mental stability, and promotes greater commitment towards organizational goals.
Another important finding of the study is that the concept of Dharma promotes duty-oriented leadership based on responsibility, accountability, and dedication. The Bhagavad Gita teaches that leaders should remain committed to their duties even in difficult situations. This principle is particularly relevant in modern organizations where leaders are required to make difficult decisions and maintain ethical standards under pressure.
The study also indicates that self-awareness and emotional control are essential qualities of effective leadership and are strongly emphasized in the Bhagavad Gita. A leader who understands his own emotions, strengths, and limitations becomes more capable of guiding others. The teachings of the Bhagavad Gita help leaders control fear, anger, confusion, and stress, thereby improving their ability to manage crisis and conflict.
Further, the study highlights that ethical values such as truthfulness, justice, integrity, and selflessness are central to the leadership philosophy of the Bhagavad Gita. These values contribute to building trust, transparency, and positive work culture within organizations. Finally, the study concludes that the integration of Bhagavad Gita-

https://www.gapgyan.org/

based leadership principles with modern leadership theories can help organizations develop responsible, value-based, and sustainable leadership practices.

10. SUGGESTIONS

Organizations should include ethics and value-based leadership training in employee development programmes.
Management education should incorporate teachings from the Bhagavad Gita in leadership courses.
Corporate leaders should practice self-discipline, emotional control, and ethical decision-making.
Future researchers may conduct empirical studies on Bhagavad Gita-based leadership in different industries.
Organizations may develop leadership models combining modern management theories with ancient Indian wisdom.

CONCLUSION

The Bhagavad Gita offers timeless and universal lessons for leadership. The dialogue between Lord Krishna and Arjuna demonstrates how an ideal leader guides, motivates, and transforms others. The principles of self-awareness, duty, ethical conduct, emotional balance, and selfless action are highly relevant to the needs of modern organizations.
A central message of the Bhagavad Gita for leadership is summarized in the following sloka:
"Yatra yogeshvarah krishno yatra partho dhanur-dharah; Tatra shrir vijayo bhutir dhruva nitir matir mama." (Chapter 18, Verse 78)
Meaning: Wherever there is Lord Krishna, the master of wisdom, and Arjuna, the man of action, there will always be prosperity, victory, success, and righteousness.
This verse symbolizes the ideal combination of wise leadership and committed action. In an age where organizations face increasing ethical challenges, competition, and uncertainty, the Bhagavad Gita provides a valuable framework for ethical and transformational leadership. By integrating these teachings into organizational practices, leaders can create more responsible, motivated, and sustainable organizations.
The Bhagavad Gita offers timeless and universal lessons for leadership. The dialogue between Lord Krishna and Arjuna demonstrates how an ideal leader guides, motivates, and transforms others. The principles of self-awareness, duty, ethical conduct, emotional balance, and selfless action are highly relevant to the needs of modern organizations.
In an age where organizations face increasing ethical challenges, competition, and uncertainty, the Bhagavad Gita provides a valuable framework for ethical and transformational leadership. By integrating these teachings into organizational practices, leaders can create more responsible, motivated, and sustainable organizations.

REFERENCES:

[1] Chakraborty, S. K. (1995). Ethics in Management: Vedantic Perspectives. Oxford University Press.
[2] Mulla, Z. R., & Krishnan, V. R. (2006). Karma-Yoga: The Indian Model of Transformational Leadership. Journal of Human Values.
[3] Rarick, C. A., & Nickerson, I. (2008). The Bhagavad Gita: A Foundation for Leadership. SAM Advanced Management Journal.
[4] Dhiman, S. (2015). Bhagavad Gita and Leadership. Journal of Values-Based Leadership.
[5] Bass, B. M., & Riggio, R. E. (2006). Transformational Leadership. Psychology Press.
[6] Northouse, P. G. (2018). Leadership: Theory and Practice. Sage Publications.
[7] Prabhupada, A. C. Bhaktivedanta Swami. Bhagavad Gita As It Is. Bhaktivedanta Book Trust.
[8] Radhakrishnan, S. (2014). The Bhagavadgita. HarperCollins.
[9] Sharma, S. (2017). Spirituality and Management in India. Himalaya Publishing House.
[10] Singh, N. (2019). Ethical Leadership and Indian Philosophy. International Journal of Management Studies.

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

PSYCHOLOGICAL DIMENSIONS OF INVESTMENT: A STUDY OF FINANCIAL LITERACY AND BEHAVIOURAL BIASES OF INDIAN MUTUAL FUND INVESTORS

LT.DR.PARSHVA SHAH,
ASSISTANT PROFESSOR, INDUS University, Ahmedabad
Nishit Shah,
Research Scholar, Indus University, Ahmedabad

Abstract

The Indian mutual fund (MF) market has grown enormously, becoming a primary destination for household savings. Total money managed (AUM) surged over six times in ten years, reaching ₹75.61 trillion by September 2025, with investor accounts hitting 25.19 crore. The core challenge is the gap between increasing access to mutual funds and the lack of basic behavioural control, which prevents smart investment choices. While financial experts do help investors diversify, their actual Behaviour is often more heavily influenced by non-cognitive factors, like social norms and a cultural preference for traditional assets. Automated savings through Systematic Investment Plans (SIPs) are very popular, reaching nearly ₹30,000 crore monthly. Given that specialized MF knowledge is low (only 60% correct), targeted policy interventions using digital platforms are necessary to deliver high-quality financial education that corrects Behavioural biases and improves fundamental comprehension.18

Keywords: *Investment Advice, Financial Literacy, Human Psychology, Behavioural Biases*

1. INTRODUCTION AND RESEARCH IMPERATIVE

The Contextual Shift in Financial Responsibility

Managing money is easier today, but financial products are more complex, and individuals now bear more financial risk. This is clear in retirement planning, where company pensions (Defined Benefit) are being replaced by personal investment accounts (Defined Contribution). People must now decide how much to save, invest, and spend. Strong financial knowledge is therefore essential for personal and economic stability.

Statement of the Problem: The Investment Behaviour Gap in India

Many people lack basic financial knowledge, even though it's increasingly important. This financial illiteracy harms individuals, families, and the economy. Poor decisions—like avoiding investments, saving too little for retirement, or taking on too much debt—are common results. Making it worse, people often overestimate their own financial knowledge, so they don't realize their gaps. This means the literacy problem is likely worse than surveys suggest.

Defining the link – Financial Literacy and Mutual Fund Investment Behaviour

Financial literacy helps people make better savings and investment decisions. Mutual fund investment behavior describes how individuals choose between different funds and investment methods like SIPs or lump-sum investing. Research shows that financial literacy leads to better-diversified portfolios and more market participation. Most importantly, it helps people avoid emotional or irrational investment choices driven by cognitive biases.

2. THE RESEARCH OBJECTIVE

This paper elaborates two primary objectives of Behavioural finance:

1. To find behavioural biases and its direct link between what people actually know about money (financial literacy) and making smart decisions with mutual funds.
2. To analyse the effects of crucial Behavioural and contextual variables (e.g., risk tolerance, social influences, and demographic disparities) that shape the conversion of financial knowledge into active MF investment.

3. SCOPE AND CORE CONCEPT

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

3.1. Conceptual Definitions and Focus

Financial Literacy – Financial Literacy is defined broadly as the ability to use knowledge and skills to manage one's financial resources effectively for lifetime financial security. Operationally, this study focuses on objective measures of knowledge—understanding core financial concepts such as compounding, inflation, and diversification—rather than subjective measures of confidence or self-efficacy.

Mutual Fund Investment Behaviour - Mutual Fund Investment Behaviour is defined by observable outcomes that indicate informed decision-making within the mutual fund universe. These include: active behavioural control, rational decision making, achieving adequate portfolio diversification, avoiding speculative choices, and maintaining long-term commitment.

Risk Tolerance - Risk tolerance is crucial to how financial literacy affects investing. Financially literate people who are comfortable with risk are more likely to invest in riskier assets. Financial knowledge lets people take informed risks based on their comfort level. Ultimately, financial literacy helps people align their risk exposure with their long-term goals.

4. The Decade-Long Trend in Indian Mutual Fund Investment (2015–2025)

4.1. Quantitative Growth Metrics: A Six-Fold Expansion

The Indian mutual fund industry's growth over the past decade serves as the empirical backdrop for analysing shifts in retail investment Behaviour. This expansion has been defined by rapid increases in both assets and penetration:

- Asset Under Management (AUM): The total AUM of the Indian MF industry surged from ₹11.87 lakh crore as on September 30, 2015, to ₹75.61 lakh crore as on September 30, 2025. This represents a more than six-fold increase in ten years.
- Folio Penetration: Folio counts, a direct measure of unique investor accounts, demonstrated parallel growth, crossing the 10 crore mark in May 2021 and reaching a total of 25.19 crore as of September 30, 2025. Folios related to the retail segment (Equity, Hybrid, and Solution-Oriented Schemes) account for the vast majority, standing at about 19.81 crore.

4.2. The Behavioural Shift: From Lumpsum to Systematic Investing (SIPs)

The most defining Behavioural trend of the last decade is the institutionalization of the Systematic Investment Plan (SIP) as the preferred savings mechanism for retail investors.

Parameter	Systematic Investment Plan (SIP)	Lump Sum Investment	Behavioural Implication
Discipline & Habit	Encourages regular saving discipline	Requires high self-discipline for re-investments	SIPs drive Behavioural resilience
Emotional Bias	Less prone to emotional decisions (timing the market)	High emotional influence during market highs or lows	SIPs mitigate irrationality through automation
Market Volatility	Shields investors via Rupee-Cost Averaging	May yield sub-optimal results in unstable conditions	SIPs promote long-term thinking

This sustained discipline is quantitatively confirmed: yearly contributions through SIPs rose sharply by 45.24% on-year in fiscal 2025, totalling ₹2.89 lakh crore.23 This monthly momentum reached a new peak of ₹29,529.37 crore in October 2025.17

However, this commitment is not entirely immune to volatility. For the first time since 2022, the industry has recently registered a net SIP account closure, suggesting that retail caution is growing amidst evolving market conditions. This shift in net Behaviour, even with the SIP mechanism, warrants close monitoring to understand the true underlying level of investor confidence.

4.3. Digital Technology as a Behavioural Enabler

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

The rise in smartphone penetration (910 million users in FY24) and the number of demat accounts (151 million) 24 provided the scale necessary for this transformation. Digitization has enabled a tectonic shift from the traditional physical paper form model to the online purchase of funds. The core Behavioural benefits facilitated by technology include:

- Convenience: Anytime-anywhere access via mobile devices.
- Access and Cost: Paperless on boarding via digital KYC and e-sign, allowing investors to start investing within minutes. The direct online model also helps mutual funds substantially reduce operating expenses.

5. SYSTEMATIC REVIEW OF LITERATURE

5.1. Theoretical Foundations: The Behavioural Transition

Traditional finance assumed investors were rational. But behavioral finance—using psychology—shows people make emotional, unpredictable financial decisions influenced by mood and social pressure. Financial literacy acts as a defense against cognitive biases like overconfidence. Financially literate people better control these biases, leading to better saving and investing decisions.

5.2. Examples of Market Bubbles and Investor's reaction of History

Tulip Mania, Netherlands (1636-1637) – The Dutch Tulip Mania began after tulips were introduced from Turkey in 1593. The flowers, especially those with rare "flames" of color, quickly became a luxury item. This led to a speculative frenzy where nearly everyone began trading tulip bulbs and their futures contracts. Prices soared to astronomical levels, with a single bulb sometimes costing ten times an average annual salary, fundamentally disconnecting the price from the bulb's intrinsic value. In February 1637, when some prudent sellers started crystallizing their profits, a panic ensued, causing a massive domino effect as prices crashed and the bubble burst. http://www.investopedia.com/features/crashes/crashes2.asp

South Sea Bubble, UK (1711 – 1720) – In the early 1700s, two major speculative bubbles emerged: the South Sea Company (SSC) in Britain and the Mississippi Company in France. The SSC was established to challenge the East India Company's monopoly, promising huge profits from a fantastical trade with Spanish South America. Fuelled by lavish public relations and widespread belief in boundless wealth, investors rushed to buy SSC stock, driving prices far beyond the company's actual value. Concurrently, in France, John Law's Mississippi Company sought to replace gold and silver with a paper currency system, attracting continental traders and becoming another massive speculative opportunity. Both companies' stocks were repeatedly issued and quickly purchased, creating huge financial bubbles that were ultimately unsustainable. http://www.investopedia.com/features/crashes/crashes3.asp

The Florida Real Estate Craze, Florida USA (1926) - In the 1920s, Florida became a hugely popular destination for new residents, causing housing demand to outpace supply and justifying initial price increases. This rapid growth attracted speculators who began pumping large amounts of money into the real estate market, causing land prices to quadruple in less than a year. The booming market turned many Floridians into investors or agents, leading to extreme inflation where properties that were genuinely worth much less were traded for millions. However, once speculators started selling to lock in profits, panic selling took over, leading to a sudden and dramatic crash in prices back down to pre-boom levels. http://www.investopedia.com/features/crashes/crashes4.asp

The Great Depression, USA (1929) - Despite the Florida real estate crash, American optimism in the 1920s remained high, fueled by post-WWI victory and industrialization, leading many to believe the stock market was a guaranteed path to wealth. This resulted in a flood of inexperienced investors pouring their life savings into stocks, making the market vulnerable to manipulation and swindling. Though some experts, like Roger Babson, warned of an impending collapse, their predictions were ignored until the market began a sharp decline in September 1929. The drop intensified through October 1929 and the market continued to fall until it bottomed out in July 1932, having lost nearly 90% of its value. This event triggered the Great Depression, a severe twelve-year worldwide economic downturn that finally ended with the commencement of World War II. http://www.investopedia.com/features/crashes/crashes5.asp

The Crash of 1987, USA - The market crash of October 19, 1987, known as Black Monday, was triggered by a combination of factors, including growing investor concern over a rash of SEC insider trading investigations and a mass exodus of capital from stocks into bonds. Though many investors had expected a downturn, the unprecedented speed of the crash was largely due to the widespread use of computerized program trading. These programs automatically issued sell orders based on stop-loss limits, overwhelming the NYSE's Designated Order

https://www.gapgyan.org/

Turnaround (DOT) system. In a single day, the Dow Jones plummeted 508.32 points (22.6%), resulting in 500$ billion in losses. Fortunately, the Federal Reserve, under Alan Greenspan, intervened to prevent bank insolvency, and the market eventually recovered, leading to the implementation of "circuit breakers" to automatically halt trading during extreme market slides. http://www.investopedia.com/features/crashes/crashes6.asp

The Dotcom Crash, Silicon Valley, USA, (2000 - 2002) – The Dot-Com Bubble formed as commercial use of the Internet exploded, creating an international market that spurred intense speculation in the "new economy." Fueled by buzzwords and promises of limitless growth, investors rushed to buy Initial Public Offerings (IPOs) of internet and technology companies, often without reviewing their business plans. This euphoria peaked in 1999, where hundreds of tech IPOs emerged, with many doubling their price on the first day of trading. However, the unrealistic valuations soon collapsed, and between 2000 and 2002, the Nasdaq Composite lost 78% of its value, marking the dramatic end of the bubble. http://www.investopedia.com/features/crashes/crashes6.asp

Subprime Crisis, World (2007-09) – Following the early 2000s recession, low interest rates and a global savings glut fuelled a period of low-risk complacency called the "Great Moderation," which drove a massive U.S. housing boom. This boom was built on risky mortgages that were deceptively bundled into highly-rated securities. When homeowners began defaulting, the value of these securities plunged, triggering massive losses and a crisis of confidence in global banks. The bankruptcy of Lehman Brothers in September 2008 caused a credit freeze that nearly collapsed the entire financial system. The ensuing recession led to extreme market volatility, with stocks falling over 50% before stabilizing, and the crisis became one of the most frightening economic events in modern history. http://www.investopedia.com/features/crashes/crashes9.asp

Conclusion

- People create most of the risk in the market place by inflating stock prices beyond the value of the underlying company.
- When stocks are flying through the stratosphere like rockets, it is usually a sign of a bubble.
- Stock leap should be justified by the prospects of the underlying companies, not just by a mass of investors following each other.
- If you put your money into investments that have a high potential for returns, you must also be willing to bear a high chance of losing it all.
- Regardless of our measures to correct the problems, the time between crashes has decreased
- The best thing you can do is keep yourself educated, informed and avoid traps.

5.3. Behavioural Patterns of Investors

Two types of investors

1. Rational investors – Rational investors are those who decide by reason, looking at company and economy fundamentals, and sticking with their investment choices for years, even decades.
2. Emotional investors – Emotional investors are those who decide with emotions rather than reason, committing cognitive errors that lead to harmful behaviour – such as overtrading, buying high and selling low, or vice versa.

Biases of Investors

Confirmation Bias – It is bias towards people who agree with us. We love who agrees with our opinion. Similarly, Investors in Tulip Bulb Bubble only liked to hear good stories about their investments and hence they did not see the other side of the story and could not foresee the crash.

In-group Bias – This bias is like Love Molecule. We only believe in likeminded people and see others suspiciously. Ultimately, the 'In-Group' bias causes us to overestimate the abilities and value of our immediate group at the expenses of people we don't really know. South Sea Bubble was caused because the people overestimated their stock valuations.

Gambler's Fallacy – Gamblers are superstitious. Under influence of this bias, we start to believe past events determine future outcome and hence we follow previous patterns. For example, we flip a coin and five consecutive times it falls as Heads. So we more inclined to believe that in next flip it's going to be a tail. But reality is odds are still 50/50. Every flip is new chance and does not depend on previous result.

Post Purchase Rationalization - Remember that time when you bought something totally unnecessary or expensive. Post purchase you analysed it and had a belief that it's the best buy you had till date even though there is better product available. For example, you bought a smart Phone for Rs.40,000. 10 days later another phone

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

with similar features was launched for Rs.35,000. You spend a month analysing your buy. Though subconsciously you know that new launch is superior but consciously you feel inferior to accept it.

Neglecting Probability – Almost no one has a problem getting into a car and going for drive but many may have a Phobia stepping into an airplane and flying at 35,000 feet. Statically, chances to die in road accident is 1 : 84 as compared to 1: 20,000 in airplane. Hence, many of us are least worried about dying by accident caused by misstepping on stairs rather than dying in an act of terrorism. We always overestimate the risks of relatively harmless activities. The Great Depression of 1929, was exactly an overestimation by large number of investors who neglected probability.

Observational Selection Bias – Effect caused by suddenly noticing things we didn't notice much before. For example, you bought a new car and you go and park your car in a parking lot and you notice similar cars everywhere. It's not like the world is suddenly buying what you bought, it's just that you have become more aware of your own car. People mistake it for a trend and may take wrong decisions based on such biases

Negativity Bias – People tend to pay more attention to negative news. Given our attention span, negative news causes more disruption. Investors tend to believe this most while investing. Investors post Dot Com bubble refused to touch Tech stocks for many years.

The Anchoring Bias (Relativity trap) – Brain fixes one price and then revolves around the same price and tend to settle to something closer to that. For example, In a retail shop, we see a discounted item and before we bought it was out of stock, then we look at all items with similar feature and then settle for one closest to that price.

This-time-its-different Bias – In USA, 50% of first time marriages end in divorce. 67% of second time marriages end in divorce. 70% of third time marriages end in divorce. Tendency of People is to rebound and enter into relationships without addressing the issues of the first breakdown. It is very similar to stock markets. Investors buy stocks without really analysing and ending up buying another worst stock.

Specific Mutual Fund Literacy Gap in India: Surveys focusing on advanced financial literacy concepts in India reveal a specific knowledge deficit regarding mutual funds. While fixed deposit questions registered the highest correct score at 85.6%, mutual fund-specific knowledge (which should include understanding NAV, expense ratio, and risk) lagged significantly at only 60.00% correct answers.18 This knowledge gap suggests that the majority of retail investors possess minimal comprehension of key mutual fund concepts like risk-return, asset allocation, and portfolio diversification.26

5.4. The Direct Link between Financial Literacy and Behaviour

Financial literacy strongly improves investment decisions and results across all groups. Financially literate people invest better because they're less influenced by emotional behaviour. They diversify across sectors, reduce risk, avoid speculation, and build long-term wealth.2

Demographic Diversity and Investment Gaps in India

Investment activity correlates strongly with both education and geographic location 27:

- Education: Post-graduate degree holders show a 27% participation rate in financial instruments, compared to 19% for graduates.27
- Occupation: Salaried professionals participate at 23%, contrasting sharply with those in agricultural work, who show only 4% participation.27
- Geographic Divide: The nine major metropolitan areas demonstrate 23% penetration, whereas rural regions lag severely at just 6% participation.27

This disparity highlights that inclusion efforts must address fundamental income stability and localized trust barriers, as stable income and higher education are important factors for determining financial literacy.28

5.5. Moderating Role of Psychological, Digital, and Contextual Factors

Social and Cultural Influence

In the contemporary environment, the importance of digital skills and digital financial literacy has emerged, particularly in shaping investment Behaviour amidst online trading and fintech tools.13 Beyond individual skills, investment Behaviour is also significantly influenced by external, social factors. Reputational cues, social interactions, and advocate recommendations play a pronounced role in driving investment decisions.30 Research specifically in India suggests that social norms have a stronger effect on investment Behaviour than financial literacy alone.16 This reliance on social validation and trust, rather than fundamental comprehension, contributes to the persistent cultural preference among many Indians for traditional assets like gold, real estate, or fixed deposits over capital market instruments.26

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

6. Methodology and Data Strategy

6.1. Research Design and Data Collection Strategy

The study employs a secondary quantitative and microeconomic data. This approach is identify complex, probabilistic nature of Behavioural economics, where the "laws" of human Behaviour are inherently flexible and cannot be measured with the quantitate accuracy of mathematical models.31 Therefore, microeconomic data helps for the investigation of diversity in Behaviour among different types of individuals and eliminates the complex impact.32

6.2. Variables and Tools

Mutual Fund Investment Behaviour: Measured using data derived from AMFI data:

1. Systematic Investment Participation: Volume and count of active SIP accounts.17
2. Portfolio Diversification: An index reflecting the variety of MF schemes held (e.g., equity, debt, hybrid, index funds).3

To identify the effect of Financial Literacy, covering socio-demographics (age, income, gender, education level) and Behavioural constructs (e.g., objective risk tolerance measures, digital access/skills, and financial planning engagement)34. The analysis employs identifying complex behavioural decisions and establishing a credible relationship.

Proving Action vs. Correlation

Successful investors may simply seek out financial education while staying biased, making the literacy-success link misleading. To prove financial knowledge actually causes better investing, researchers need sophisticated methods that rule out pre-existing wealth or skill as explanations.31

7. Conclusion, Implications, and Future Research Agenda

7.1. Synthesis of Key Findings

This research shows financial literacy directly improves mutual fund investing—leading to disciplined SIP use and diversification. Financial literacy helps people overcome psychological barriers and biases like fear and herd mentality, steering them toward long-term wealth building instead of impulsive decisions.2

Crucially, the Indian market exhibits two defining Behavioural characteristics over the last decade:

1. Structural Shift to Discipline: The six-fold growth in AUM over 10 years has been continued by the SIP phenomenon, representing a fundamental shift toward disciplined savings. This systematic approach has been improved by the shift to digital distribution, enabling low-cost, paperless access.
2. Behavioural Vulnerability: Despite increasing access, a significant literacy deficit persists, with only 60.00% of surveyed respondents correctly answering mutual fund-specific questions.18 Furthermore, investment decisions are often disproportionately influenced by social norms and trust rather than fundamental financial knowledge 16, contributing to the persistence of traditional asset preferences (gold, real estate).15 The recent net closure of SIP accounts since 2022 indicates that the new retail investor base remains sensitive to market conditions, despite the general discipline of SIPs.

7.2. Policy and Practical Implications

The widespread impact of financial illiteracy demands policy intervention, particularly in the Indian mutual fund market. The key actions suggested are: mandating financial education, launching targeted awareness campaigns, and simplifying product disclosures to encourage prudent investment behaviours like SIPs and diversification.

1. Targeted MF Education and Quality Focus: Policy frameworks integrate MF-specific education that moves beyond general literacy to focus intensely on core concepts like the Asset Allocation, Diversification and scheme risk profiling.18
2. Leveraging Digital Channels for Education: Policymakers prioritize developing tailored educational programs for the digitally active and younger populations, focusing on the responsible use of online platforms.3
3. Addressing Demographic and Trust Barriers: Recognizing the geographic divide (23% metro penetration vs. 6% rural) and the strong influence of social norms 27, interventions must utilize community leaders and localized trust networks to extend MF awareness, particularly in agricultural and lower-income segments.27

7.3. Limitations and Future Research Directions

Large-scale data required for continued research. Specifically, the lack of detailed clarification regarding financial education exposure 14 limits the ability to guide optimal course construction. Furthermore, the absence of detailed asset value data restricts the analysis of the magnitude of investments.22

https://www.gapgyan.org/

The future research agenda must therefore pivot from diagnosing the problem to rigorously testing the efficacy of specific solutions:

1. Experimental Methods: Further work must employ experimental or quasi-experimental methods to strengthen causal inferences.
2. Digital Behavioural Biases: Given the digital shift, future studies must specifically examine the impact of digital financial literacy and the unique Behavioural biases that influence MF investment decisions.37

8. Citations and References

[1] NBER WORKING PAPER SERIES FINANCIAL LITERACY AROUND THE WORLD: AN OVERVIEW Annamaria Lusardi Olivia S. Mitchell Working Paper 17, accessed November 11, 2025, https://www.nber.org/system/files/working_papers/w17107/w17107.pdf

[2] Financial Literacy and Its Influence on Investment Behaviour - ResearchGate, accessed November 11, 2025, https://www.researchgate.net/publication/395699955_Financial_Literacy_and_Its_Influence_on_Investment_Behaviour

[3] EVALUATING THE EFFECT OF FINANCIAL LITERACY ... - Lex localis, accessed November 11, 2025, https://lex-localis.org/index.php/LexLocalis/article/download/802207/2518/24999

[4] The Economic Importance of Financial Literacy: Theory and Evidence - PMC, accessed November 11, 2025, https://pmc.ncbi.nlm.nih.gov/articles/PMC5450829/

[5] (PDF) EVALUATING THE EFFECT OF FINANCIAL LITERACY ON INVESTMENT DECISION- META-ANALYSIS – Research Gate, accessed November 11, 2025, https://www.researchgate.net/publication/396713253_EVALUATING_THE_EFFECT_OF_FINANCIAL_LITERACY_ON_INVESTMENT_DECISION-_META-ANALYSIS

[6] FINANCIAL LITERACY, FINANCIAL EDUCATION AND ECONOMIC OUTCOMES - PMC - PubMed Central, accessed November 11, 2025, https://pmc.ncbi.nlm.nih.gov/articles/PMC3753821/

[7] Three Questions to Measure Financial Literacy | Bocconi University, accessed November 11, 2025, https://www.unibocconi.it/en/faculty-and-research/research/research-centers/three-questions-measure-financial-literacy

[8] Center for Research on Consumer Financial Decision Making | Leeds School of Business, accessed November 11, 2025, https://www.colorado.edu/business/centers/center-research-consumer-financial-decision-making

[9] Financial Capability in the United States - Finra Foundation, accessed November 11, 2025, https://www.finrafoundation.org/sites/finrafoundation/files/2025-07/NFCS-Report-Sixth-Edition-July-2025.pdf

[10] The National Financial Capability Study | Finra Foundation, accessed November 11, 2025, https://finrafoundation.org/national-financial-capability-study

[11] The Impact of Political and Economic Developments on Stock Investors' Decisions: Evidence from Turkiye1 - DergiPark, accessed November 11, 2025, https://dergipark.org.tr/en/download/article-file/2669172

[12] Editorial: Improving financial decisions - PMC - NIH, accessed November 11, 2025, https://pmc.ncbi.nlm.nih.gov/articles/PMC10097875/

[13] Modeling the Determinants of Stock Market Investment Intention and Behaviour Among Studying Adults: Evidence from University Students Using PLS-SEM - MDPI, accessed November 11, 2025, https://www.mdpi.com/2227-7072/13/3/138

[14] Evidence based on the National Financial Capability Study - Digital Commons @ EMU, accessed November 11, 2025, https://commons.emich.edu/cgi/viewcontent.cgi?article=2562&context=theses

[15] Mutual Fund Industry in India: Challenges & Opportunities - 5paisa, accessed November 11, 2025,

https://www.gapgyan.org/

https://www.5paisa.com/blog/mutual-fund-industry-in-india-challenges-and-opportunities

[16] Investors' Behavioural Intention in Mutual Fund Investments in India: Applicability of Theory of Planned Behaviour | Request PDF - ResearchGate, accessed November 11, 2025, https://www.researchgate.net/publication/382650864_Investors'_Behavioural_Intention_in_Mutual_Fund_Investments_in_India_Applicability_of_Theory_of_Planned_Behaviour

[17] AMFI Data: Mutual fund SIP inflows inch up 1% to Rs 29,529 crore in October, accessed November 11, 2025, https://m.economictimes.com/mf/mf-news/mutual-fund-sip-inflows-inch-up-1-to-rs-29529-crore-in-october/articleshow/125242406.cms

[18] A STUDY OF FINANCIAL LITERACY AMONGST THE INVESTORS OF GURUGRAM, accessed November 11, 2025, https://gjust.ac.in/portal/upload/97d8e310-04b9-4fb5-b021-c98b18c2e3bc.pdf

[19] FAQs for Mutual Fund Investors - SEBI, accessed November 11, 2025, https://www.sebi.gov.in/sebi_data/faqfiles/sep-2024/1727242783639.pdf

[20] Expense Ratio in Mutual Fund - Meaning, Calculation, and Formula - Bajaj Finserv, accessed November 11, 2025, https://www.bajajfinserv.in/investments/what-is-expense-ratio

[21] Financial literacy among young college students: Advancements and future directions - PMC, accessed November 11, 2025, https://pmc.ncbi.nlm.nih.gov/articles/PMC12411838/

[22] The FINRA Foundation's National Financial Capability Study: Unpacking 12 years of data on U.S. financial capability | Journal of Financial Literacy and Wellbeing | Cambridge Core, accessed November 11, 2025, https://www.cambridge.org/core/journals/journal-of-financial-literacy-and-wellbeing/article/finra-foundations-national-financial-capability-study-unpacking-12-years-of-data-on-us-financial-capability/123F12F04B99AC4651BF1EDB53831E7B

[23] AMFI Annual Report, accessed November 11, 2025, https://www.amfiindia.com/Themes/Theme1/downloads/AMFI_AnnualMFReport2025.pdf

[24] Assessment of Mutual Fund industry in India, accessed November 11, 2025, https://www.icicipruamc.com/blob/investor-relations/IR_Documents/ICICI_Prudential_Industry_Report.pdf

[25] Three Questions to Measure Financial Literacy, accessed November 11, 2025, https://gflec.org/wp-content/uploads/2015/04/3-Questions-Article2.pdf

[26] (PDF) A STUDY ON "OPPORTUNITIES AND CHALLENGES FACED BY MUTUAL FUND INVESTORS IN INDIA" - ResearchGate, accessed November 11, 2025, https://www.researchgate.net/publication/388790946_A_STUDY_ON_OPPORTUNITIES_AND_CHALLENGES_FACED_BY_MUTUAL_FUND_INVESTORS_IN_INDIA

[27] SEBI Survey Reveals Indian Investors Prefer Social Media Influencers Over Traditional Financial Advisors - Moneylife Advisory, accessed November 11, 2025, https://mas360.moneylife.in/article/sebi-survey-reveals-indian-investors-prefer-social-media-influencers-over-traditional-financial-advisors/4832.html

[28] Financial Literacy across Different States of India: An Empirical Analysis, accessed November 11, 2025, https://www.ris.org.in/sites/default/files/Publication/DP-286-PDash-and-Rahul-Ranjan.pdf

[29] Mapping Financial Literacy: A Systematic Literature Review of Determinants and Recent Trends - MDPI, accessed November 11, 2025, https://www.mdpi.com/2071-1050/15/12/9358

[30] Financial literacy and investment decision: an empirical study from the Palestine Stock Exchange - Frontiers, accessed November 11, 2025, https://www.frontiersin.org/journals/Behavioural-economics/articles/10.3389/frbhe.2025.1444022/full

[31] How Useful Are Econometric Models? in: Finance & Development Volume 6 Issue 001 (1969), accessed November 11, 2025, https://www.elibrary.imf.org/view/journals/022/0006/001/article-A004-en.xml

[32] Microeconometric Models of Investment and Employment - Institute for Fiscal Studies, accessed November 11, 2025, https://ifs.org.uk/sites/default/files/output_url_files/bondvanr2003.pdf

[33] Reserve Bank of India's (RBI) financial inclusion index shows growth across all segments, rises 4.3% in FY25 | IBEF, accessed November 11, 2025, https://www.ibef.org/news/reserve-bank-of-india-s-rbi-financial-inclusion-index-shows-growth-across-all-segments-rises-4-3-in-fy25

[34] Determinants of Mutual Fund Investment Returns: Evidence from Indian Retail Investors' - EconJournals.com, accessed November 11, 2025,

https://www.gapgyan.org/

https://www.econjournals.com/index.php/ijefi/article/download/18542/8844/44282

[35] Financial literacy to develop complex thinking skills: quantitative measurement in Mexican women entrepreneurs - Frontiers, accessed November 11, 2025, https://www.frontiersin.org/journals/education/articles/10.3389/feduc.2024.1331866/full

[36] RBI's Financial Inclusion Index rises to 67 in 2025 indicating Growth for Everyone - PIB, accessed November 11, 2025, https://www.pib.gov.in/PressNoteDetails.aspx?NoteId=154980&ModuleId=3

[37] A Study On The Awarness Of Mutual Funds Among ... - IJCRT.org, accessed November 11, 2025, https://www.ijcrt.org/papers/IJCRT2503629.pdf

[38] Thematic review of financial education and financial literacy in the digital age in: Acta Oeconomica Volume 74 Issue 4 (2024) - AKJournals, accessed November 11, 2025, https://akjournals.com/view/journals/032/74/4/article-p483.xml

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

THE HEALING POWER OF SUNSET

Sitapara Dipali Harshadbhai

sitaparadipalih@gmail.com
MRT&MSV SCIENCE COLLEGE

Abstract

Many people move through life without truly experiencing it. Some are simply surviving, a few are genuinely living, and even fewer live with happiness and purpose. One powerful yet simple way to enhance well-being is by reconnecting with NATURE, especially through practices like Yoga and mindful Sunset observation. Nature has a natural healing effect on both the mind and body. When yoga is practiced outdoors often referred to as "green yoga", its benefits increase significantly. The calm environment, fresh air, and natural surroundings strengthen the connection between body and mind. This combination helps reduce stress, improve focus, and support both emotional and physical recovery. Sunset therapy is another gentle and accessible practice. It involves watching the setting sun to relax the mind and body. While it is not a clinical treatment, it is supported by scientific understanding of how natural light affects mood and mental health. Sunsets offer psychological, social, physiological, and even spiritual benefits. They can lower stress levels, enhance mood, encourage meaningful conversations, improve sleep patterns, and create a sense of peace. As the sun sets, the atmosphere filters blue light and leaves warm red and orange tones. This shift in light influences the body's internal clock and signals the brain to slow down. Watching the gradual change in colours encourages mindfulness, helping quiet racing thoughts and reduce mental fatigue. It creates a natural pause, allowing people to let go of daily worries. In today's fast-paced, technology-driven world, taking time to observe a sunset offers a simple yet powerful way to reconnect with calmness, restore balance, and promote overall well-being. "Easy steps to live happily, enjoy each moment, and create a meaningful life with Healing power of Sunset."

Keywords : *Yoga, Mental Health, Healing, Sunset*

INTRODUCTION

Ayurveda and Yoga are intertwined ancient Indian Systems for Comprehensive holistic health, focusing on balancing the mind, body and spirit to prevent illness and promote longevity. Ayurveda Provides personalized diet, lifestyle and herbal remedies based on individuals body types, while Yoga utilizes Physical postures (Asanas),breathing(Pranayama),and meditation to strengthen and heal. Nature plays a critical and Supercharging role in the healing process when combined with Yoga ,While yoga alone is effective, Practicing it in a Natural Setling create a powerful Synergy that speeds up mental and Physical recovery. Nature Provides Literal "Medicine" that Supports the body's repair during Yoga. Sunset therapy is the intentional practice of using the setting Sun to calm the mind and body. It isn't clinical treatment, but a science backed ritual that uses nature's daily transition to "Supercharge" your mood and reduce stress. This study aims to examine the effects of sunset yoga on physical and psychological well-being across different age groups. A 21-day experimental study was conducted involving participants categorized into three age groups: young adults (20–30 years), middle-aged adults (35–50 years), and older adults (above 60 years).

The participants performed yoga sessions during sunset under natural outdoor conditions. Data were collected through self-reported questionnaires, observational analysis, and behavioural responses. The results indicated that sunset yoga positively influenced mental relaxation, mood enhancement, and stress reduction across all age groups. Younger participants demonstrated greater adaptability to evening routines, while middle-aged and older participants initially showed preference toward morning practices but gradually experienced improved comfort and relaxation with sunset yoga. The findings suggest that sunset yoga may serve as an effective alternative to traditional morning yoga practices, promoting overall well-being and mindfulness. The findings suggest that sunset yoga may serve as an effective alternative to traditional morning yoga practices, promoting overall well-being and mindfulness.

LITERATURE REVIEW

Previous research indicates that yoga improves flexibility, reduces anxiety, enhances breathing capacity, and promotes emotional stability. Environmental psychology research suggests that exposure to natural environments improves mental health. Studies on circadian rhythm indicates that evening relaxation practices may improve sleep quality and reduce stress accumulated during the day. Sunset Yoga Alighn with these findings by providing structured relaxation during evening hours. However, limited research exists regarding sunset yoga specifically, creating a research gap addressed in this study.

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

Have You Ever Heard "The Sunset Theory?"
It Says that every beautiful moment carries its own quiet ending a soft "last light" that we often fail to notice. We move through our days believing there will always be another tomorrow, brighter and better. But not every sunset is the same. Some arrive with a rare calmness, a kind of peace that never repeats itself in quite the same way.
We spend so much time overthinking, waiting for the "perfect" moment to speak, to love, to begin something new. Yet while we hesitate, the sky slowly darkens. And before we realize it, the opportunity fades away, just like the sun slipping beyond the horizon.
So when you find someone or something that feels like a sunset calm, meaningful, and rare don't turn away. Pause. Appreciate it. Hold onto the warmth while it lasts.
Because not every light returns in the same way… and some sunsets are meant to be cherished before they disappear.

Why Sunset Yoga Is Powerful ? A Journey Through History:

1) Ancient Civilizations (3000 BCE – 500 CE)
Ancient cultures saw sunset as a symbol of death and rebirth.
In Ancient Egypt, the sun god Ra was believed to travel to the underworld at sunset and be reborn at sunrise.

2) In Ancient Greece, sunset was linked with Helios riding his chariot across the sky. Meaning:
Sunset = End of life cycle
Sunrise = Rebirth

3) Classical Era (500 BCE – 500 CE)
Philosophers like Aristotle tried to scientifically explain sunset colours. Early observations connected sunset colours to air, dust, and light scattering. Meaning:
Shift from mythology → early science

4) Renaissance Era (1300 – 1600)
Artists began capturing sunset beauty in paintings.
Famous works like The Fighting Temeraire symbolized end of an era through sunset. Sunset became symbols of nostalgia and change.

Meaning:
Sunset = Change and transformation

5) Scientific Revolution (1600 – 1800)
Scientists like Isaac Newton explained sunset colours using light theory. Discovery of light scattering explained why sunsets appear red and orange. Meaning:
Sunset = Scientific curiosity

6) Romantic Era (1800 – 1900)
Writers and artists loved sunsets as emotional symbols. William Wordsworth wrote about sunset and nature.
Meaning:
Sunset = Peace, reflection, emotions

7) Modern Era (1900 – Present)
Sunset linked to mindfulness, mental health, and relaxation.

- Scientific studies in Environmental Psychology show sunsets:

Reduce stress Improve mood Increase creativity Meaning:
Sunset = Mental healing & mindfulness

❖ *Interesting Historical Fact*
During World War II, soldiers often watched sunsets as moments of hope and peace after difficult days.
❖ In Every Era, Sunset Symbolized: Endings
New beginnings
Reflection Hope

So, Across History :
Ancient people saw sunset as rebirth → Yoga teaches renewal Philosophers saw mystery → Yoga teaches awareness
Artists saw emotion → Yoga releases emotions
Poets saw reflection → Yoga encourages mindfulness Modern life sees healing → Yoga brings peace
And today…

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

When you practice yoga during sunset…
You connect with thousands of years of human experience.

Scientific Sunset Theory
A sunset is not just beautiful. It's a fascinating scientific phenomenon caused by Earth's atmosphere and light behaviour.

1) Earth's Rotation

Sunsets happen because of the Earth's rotation. As the Earth spins, the Sun appears to move across the sky. When your location turns away from the Sun, the Sun appears to "set."
This is due to the Earth's rotation, not because the Sun is actually moving down.

2) Why the Sky Turns Orange & Red ?

The main reason sunsets look colourful is called Rayleigh scattering. Here's how it works:
Sunlight contains all colours (white light).
Blue light scatters more easily in the atmosphere.
During sunset, sunlight travels a longer distance through the atmosphere. Most blue light scatters away.
Red, orange, and pink colours remain visible. That's why sunsets look warm and colourful.

3) Why Every Sunset is Different ?

Sunset colours change depending on:
Dust particles, Pollution, Clouds, Humidity, Weather conditions.

4) Why Sun Looks Bigger at Sunset ?

This is called the Moon illusion (also applies to the Sun).
Your brain compares the Sun with objects like trees and buildings, making it appear larger.

THE SCIENCE OF SUNSET,COLORS AND BRAIN CHEMISTRY
As the sun nears the horizon, the atmosphere Scatters blue light, leaving a dominance of long-wave red and Orange light. This Specific Shift in the light spectrum acts as a Powerful Neurochemical trigger.

1) Melatonin Production

The absence of blue light signals the pineal gland to begin Synthesizing melatonin, the hormone responsible For deep sleep and cellular repair. Cortisol Reduction Viewing the sunset's warm hues gradually reduces cortisol (the stress hormone) by signalling to the brain that, The "Active" phase of the day is over.

2) Dopamine & Serotonin

3) The vibrant colours and the "Blue-Orange" contrast at dusk are optimal stimuli for the eye's neurons, which can Increase serotonin by up to 15% and dopamine by 10% boosting mood and focus.

4) Psychological Awe

Witnessing a vast sunset triggers a state of "Awe", which silences the brain's "default mode network", they Are responsible for repetitive thinking and Self-criticism.

Spectrum of Sunset (Scientific Explanation)

1. Red and Orange Light Spectrum

During sunset, sunlight travels through a longer path in the atmosphere. Shorter wavelengths like blue and violet scatter away, while longer wavelengths such as red, orange, and yellow reach our eyes.
This phenomenon is known as Rayleigh Scattering.

➢ Result:

Blue light scatters away
Red & Orange light dominates Warm calming colours appear

➢ **Approximate Sunset Wavelength Range** Violet: 380–450 nm (mostly scattered away) Blue: 450–495 nm (scattered)
Green: 495–570 nm (partially visible) Yellow: 570–590 nm (visible)
Orange: 590–620 nm (strong at sunset) Red: 620–750 nm (dominant at sunset)
These warm colours naturally promote relaxation and mental calmness.

2. Melatonin Activation

Unlike blue light from phones, sunset light does not suppress the sleep hormone Melatonin.
Instead:
Red & orange light signal the brain that day is ending.
The brain's master clock Circadian Rhythm begins preparing for sleep. Melatonin release increases.

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

- **Result:** Better sleep Reduced stress Calm mind

3. Near-Infrared (NIR) Light at Sunset Sunset also contains Near-Infrared (NIR) light. **Benefits**: Penetrates skin and tissues Supports cellular repair Reduces inflammation Improves blood circulation This is sometimes linked with Photo-biomodulation.

4. Low Light Intensity & Stress Relief
Sunset light intensity:



Daytime: ~10,000–100,000 lux Sunset: ~50–500 lux
Lower intensity:
Reduces heart rate Relaxes muscles Calms nervous system

5. Cortisol Reduction Sunset helps reduce Cortisol **Effects:**
Reduces anxiety Improves mood Promotes relaxation

6. Transition to Calm State
Warm sunset colours help the body move from: Alert mode → Relaxed mode
Stress → Calm Activity → Rest
Scientific Tip (Best Practice)

- For best results:

View sunset for 5–15 minutes. Avoid sunglasses (if comfortable) Practice breathing or yoga.
Look at natural horizon.

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

Spiritual Meaning of Sunset
Sunset represents:
Letting go of worries. Ending the day peacefully. New hope for tomorrow. Gratitude and reflection.

Spiritually, sunset reminds us:
"Every ending is also a new beginning." Just like the sun sets…
It always rises again.

❖ **Why Many People Feel Emotional During Sunset ? According to Environmental Psychology natural beauty like sunsets helps**: Reduce anxiety, Improve focus, Increase happiness, Create mindfulness.
That's why many people: Pray during sunset.
Do yoga during sunset.
Feel peaceful while watching sunset.

❖ 21-Day Sunset Yoga Experiment
A Comparative Study Across Three Generations.
Objective
To understand how sunset observation, music, and yoga impact mental well-being, emotional balance, and physical relaxation across three generations.
This experiment also explores the generation gap:
Gen Z (20–30 years) → More connected to sunset & evening calm Millennials (35–50 years) → Believe in sunrise & early morning energy
Older Generation (60+ years) → Traditionally prefer morning routine & sunrise
The goal was to see whether sunset-based wellness practices could benefit all age groups equally.

➢ *Participants*
Group 1 — Young Generation (Gen Z)
Age: 20–30 years
Participants: 03 people
Nature: Active lifestyle, Screen time high, Stress from career & future

Group 2 — Middle Age (Millennials)
Age: 35–50 years
Participants: 03 people
Nature: Work pressure, Family responsibilities, Prefer morning routines

Group 3 — Older Generation Age: Above 60 years Participants: 03 people
Nature: Health concerns, Traditional mindset, Believe in early morning energy.

Experiment Structure (21 Days) Phase 1 (Day 1–7)

Only Sunset Observation. Participants were instructed to: Sit quietly.
Observe sunset daily. No phone usage.
No conversation.
Just breathing and observing.

➢ *Observations*

Group 1 (Gen Z)
Felt relaxed after busy day. Reduced phone usage naturally. Reported improved sleep.
Some experienced emotional calm.
Result after 7 Days:
70% felt less stressed 60% reported better sleep
50% experienced improved mood

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.



Group 2 (Millennials)
Initially uncomfortable with evening routine Felt it was "waste of time" in first 2 days Gradually began enjoying peaceful moments.
Result after 7 Days:
50% felt calmer
40% noticed reduced work stress 30% improved sleep

Group 3 (Older Generation) Felt relaxed but less energetic Some preferred morning still Enjoyed nature connection.

Result after 7 Days:
60% felt peaceful
40% reported improved mood 30% better sleep

Phase 2 (Day 8–14)
Sunset + Soft Music **Participants added**: Calm instrumental music Nature sounds Meditation music Observations

Group 1 (Gen Z)
Strong emotional connection Felt more calm & creative Reduced anxiety

Result after 14 Days:
80% reported emotional calm 70% improved focus
65% reduced anxiety

Group 2 (Millennials) Music helped release stress Enjoyed quiet evening break Felt refreshed after work

Result after 14 Days: 70% reduced stress
60% improved mood
50% better sleep

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.



Group 3 (Older Generation) Music created deep relaxation Felt nostalgic and peaceful Reduced loneliness feeling.

Result after 14 Days:
75% emotional calm
65% relaxed body
55% improved sleep

Phase 3 (Day 15–21)
Sunset + Music + Yoga **Participants added:** Light yoga stretches Breathing exercises Meditation Yoga Included Deep breathing Gentle stretching Meditation Relaxation pose.

- ❖ Final Observations

Group 1 (Gen Z) Results:
Major reduction in stress Improved focus
Better sleep cycle Reduced screen addiction

Final Result:
85% Stress Reduction
80% Better Sleep
75% Improved Mood

https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

70% Better Focus
Unexpected Result Many Gen Z participants reported: Increased creativity
Emotional stability Calm mindset

Group 2 (Millennials) Results:
Reduced work stress Improved emotional balance Better family interaction

Final Result:
80% Stress Reduction
70% Better Sleep
75% Improved Mood
65% Reduced Anxiety

Unexpected Result In Millennials Generation:
Looking forward to sunset Preferring evening relaxation.

Group 3 (Older Generation) Results:
Improved mental calm Reduced loneliness
Improved physical relaxation.

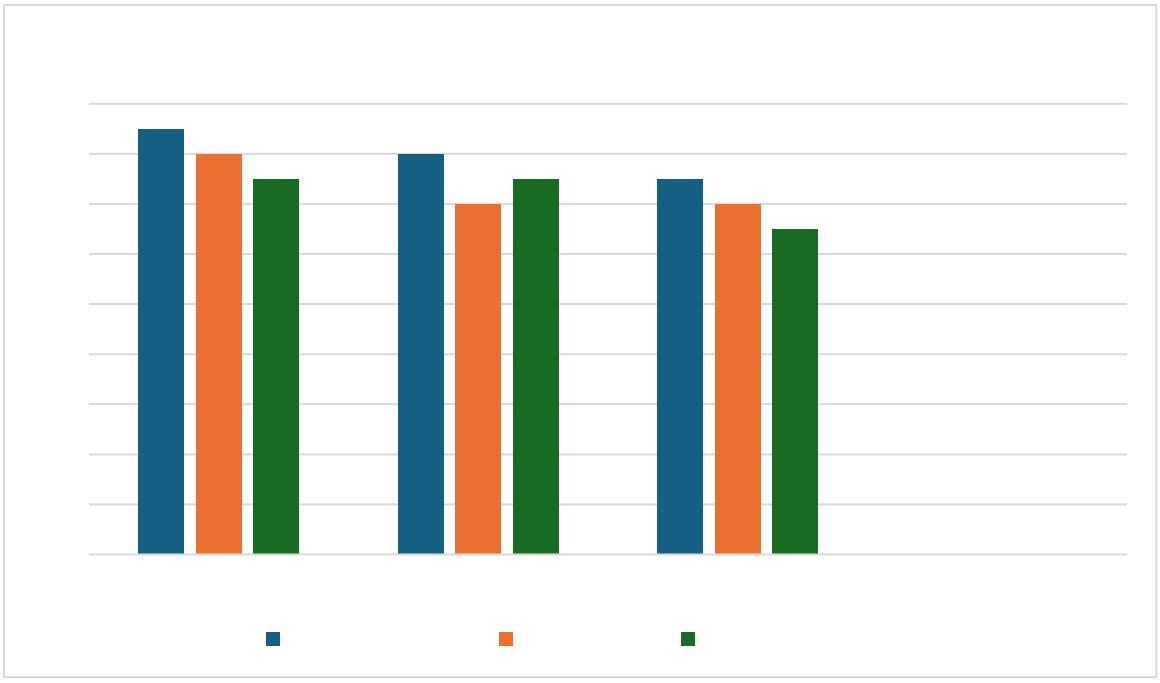
Final Result:
75% Emotional Calm
70% Better Sleep
65% Physical Relaxation
60% Reduced Anxiety

Unexpected Result Many participants started:
Enjoying evening routine Feeling emotionally balanced

❖ Final Comparison

Age Group	Stress Reduction	Better Sleep	Mood Improvement
20-30	85%	80%	75%
35-50	80%	70%	75%
60+	75%	70%	65%

➢ **Experimental Flow Chart**



https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

❖ Sunrise Yoga vs Sunset Yoga:

Factor	Sunrise Yoga	Sunset Yoga
Energy Level	Boosts energy for the whole day	Release tiredness from the day
Mind State	Fresh, Calm, Focused	Relaxed, peaceful, reflective
Body Condition	Muscles stiffness, need gentle Warm-up	Body warm, more flexible
Hormones	Cortisol naturally high=alertness	Melatonin increases = Relaxation
Best for	Productivity, motivation, discipline	Stress relief, Sleep, Mental Calm
Difficulty	Slightly harder (body stiff)	Easier (body flexible)
Purpose	Start your day strong	End Your day peacefully



https://www.gapgyan.org/

GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

FINAL CONCLUSION

The Present study highlights the powerful relationship between Sunset exposure, Yoga, and Overall well-being. The integration of Ayurveda, Yoga, and Nature-based practices of demonstrates that holistic healing is most effective when physical, mental ,and emotional elements are addressed together. Scientific explanations further support these findings. The warm spectrum of sunset light ,reduction in cortisol levels, increased melatonin production, and activation of calming neurochemical responses contribute to improved mental clarity and relaxation. The study also highlights the Psychological and Emotional value of Sunset Observation, which encourages reflection, gratitude, and mental calmness. When combined with Soft Music and gentle Yoga, Sunset becomes a natural Therapeutic Environment that promotes Holistic Wellness.
The 21-Day Sunset Yoga Experiment showed that:
Sunset improves mental calm
Music improves emotional balance
Together they create powerful healing for all generations.

Most Surprising Result:
Even Millennials & Older Generation, who believed strongly in sunrise energy, started preferring sunset relaxation after 21 days.

Overall the findings suggest that Sunset Yoga can serve as an effective alternative to traditional morning yoga, offering flexibility for individuals with busy schedules while still delievering substantial health benefits. It is not merely a wellness trend but a science-supported ,holistic practice that enhances mental peace, emotional balance, and physical health. Incorporating sunset yoga into daily routines may help individuals of all generations achieve greater harmony, mindfulness, and long-term well-being.
This experiment proves:
Sunset is not just beautiful — it's therapeutic.

REFERENCES

[1] Sharma, P. V. (1995). Fundamentals of Ayurveda. Chaukhamba Orientalia.
[2] Telles, S., Sharma, S. K., & Balkrishna, A. (2014). Yoga and Ayurveda: Integration for Health. Journal of Ayurveda and Integrative Medicine, 5(3), 188–193.
[3] Woodyard, C. (2011). Exploring the therapeutic effects of yoga. International Journal of Yoga, 4(2), 49–54.
[4] Field, T. (2011). Yoga clinical research review. Complementary Therapies in Clinical Practice, 17(1), 1-8.
[5] Ulrich, R. S. (1984). View through a window may influence recovery from surgery. Science, 224(4647), 420-421.
[6] Kaplan, R., & Kaplan, S. (1989). The Experience of Nature: A Psychological Perspective. Cambridge University Press.
[7] Czeisler, C. A. (1999). Stability, precision, and near-24-hour period of the human circadian pacemaker. Science, 284(5423), 2177–2181.
[8] Walker, M. (2017). Why We Sleep. Scribner Publications.
[9] Brainard, G. C., et al. (2001). Action spectrum for melatonin regulation in humans. Journal of Neuroscience, 21(16), 6405–6412.
[10] Chang, A. M., et al. (2015). Evening use of light-emitting devices affects sleep. PNAS, 112(4), 1232–1237
[11] Bohren, C. F., & Huffman, D. R. (1983). Absorption and Scattering of Light by Small Particles. Wiley..
[12] Hamblin, M. R. (2017). Photo-biomodulation therapy. Nature Reviews, 3(2), 170-181.
[13] Chung, H., et al. (2012). The Nuts and Bolts of Low-level laser therapy. Annals of Biomedical Engineering, 40(2), 516-533.
[14] Keltner, D., & Haidt, J. (2003). Approaching awe. Cognition and Emotion, 17(2), 297-314.
[15] Stellar, J. E., et al. (2015). Awe and health outcomes. Emotion, 15(2), 129-133.
[16] Ulrich, R. S. (1991). Stress recovery during exposure to natural environments. Journal of Environmental Psychology, 11(3), 201-230.

https://www.gapgyan.org/