

Effectiveness of Maturity Models in the Indian Knowledge System (IKS)

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Abstract: *The Indian Knowledge System (IKS) is a rich and diverse body of traditional knowledge spanning disciplines such as Ayurveda, Yoga, Vastu Shastra, Jyotish, linguistics, mathematics, and indigenous educational methodologies. In recent years, there has been a growing emphasis on institutionalizing and standardizing these knowledge domains within modern academic and professional frameworks. This study examines the effectiveness of maturity models as structured assessment tools for evaluating the development, implementation, and sustainability of practices within the Indian Knowledge System (IKS). Widely used in quality management and process improvement, maturity models provide staged frameworks that enable organizations to measure capabilities, identify gaps, and implement systematic enhancements. The research adopts a qualitative and analytical approach to evaluate the applicability of maturity models in IKS-related institutions and knowledge dissemination platforms. Key dimensions such as documentation, knowledge preservation, curriculum standardization, practitioner competency, and innovation capacity are analysed to assess their alignment with maturity level indicators. Comparative analysis of selected frameworks highlights the adaptability of maturity models to culturally rooted and interdisciplinary knowledge traditions. The study shows that maturity models offer structured pathways for organizational progress by pinpointing strengths, gaps, and opportunities for improvement. Their effectiveness increases when they are adapted to the cyclical and integrative approaches inherent in the Indian knowledge system. Benefits include improved knowledge dissemination, innovation capacity, and organizational resilience. However, challenges such as over-standardization, limited awareness, and resistance to change can constrain their impact. The findings suggest that customized maturity models significantly improve transparency, accountability, and continuous improvement in the management and dissemination of Indian traditional knowledge (IKS). Furthermore, integrating maturity-based evaluation mechanisms supports policy implementation, enhances research quality, and promotes sustainable knowledge transfer across generations. The study concludes that context-sensitive maturity models can serve as effective tools to strengthen institutional capacity and ensure the systematic growth of the Indian Knowledge System (IKS) in contemporary academic and professional environments.*

Keywords: Maturity Models, Indian Knowledge System, Organizational Development, Cultural Adaptation, Knowledge Management

1. Introduction

Indian Knowledge System (IKS) is a large, interdisciplinary, rich intellectual heritage developed over thousands of years. It includes texts of the type Veda and Upanishad, but also practices in medicine, maths, linguistics, long pre-dating Western practice - sciences understood by a different cultural narrative at a point in time.

IKS encompasses a practice of broadening the parameters within which we think about our existence to include material, ethical, and moral dimensions together as an integrated whole. It represents a shift away from discrete, fragmented knowledge frameworks to one that prioritizes interconnectedness, sustainability, and experiential learning.

Therefore, there has been a revival of interest in the inclusion of IKS into contemporary educational and governance systems. That is reflected in schemes like NEP 2020 and institutional changes, with universities including IKS in their curricula to promote comprehensive education. However, despite this growing focus, incorporating IKS into modern systems faces various obstacles:

2. Lack of Standardization

- Difficulty in evaluation and measurement.
- Contextual and regional diversity.

- Tension between traditional and modern epistemologies.
- To address these challenges, structured frameworks such as maturity models can be employed. Maturity models provide a systematic approach to assessing the development and effectiveness of systems across defined stages.

3. Literature Review

3.1 Indian Knowledge System (IKS): Nature and Scope

- IKS is a comprehensive framework for knowledge that promotes harmony between Humans and nature are integrated through multiple disciplines.
- It is a dynamic, ever-evolving system that continues to address modern issues like sustainability, mental health, and ethical governance rather than just historical knowledge.
- Furthermore, IKS differs from contemporary scientific paradigms that emphasize empirical and quantitative methods since it is firmly anchored in oral traditions and experiential learning.

3.2 Maturity Models: Concept and Uses

A system, organization, or process's progressive stages of development are defined by maturity models, which are organized frameworks. They are extensively utilized in organizational growth, software engineering, and knowledge

management.

Usually, maturity models have several levels, like:

- Initial (ad hoc processes)
- Managed (Basic structure)
- Defined (standardized procedures)
- Quantitatively managed (Measured performance)
- Optimized (Continuous improvement)

These models help organizations identify gaps, improve efficiency, and guide long-term development strategies.

3.3 Relevance of Maturity Model to IKS

The application of maturity models to IKS is an emerging area of research. While maturity models have been successfully applied in domains like healthcare and education to improve performance and efficiency, their application to indigenous knowledge systems requires careful adaptation.

IKS differs significantly from conventional systems due to its:

- Non-linear knowledge structures
- Cultural and contextual variability
- Emphasis on values and ethics

Therefore, direct application of conventional maturity models may not be sufficient.

3.4 Proposed Framework of the IKS Maturity Model

The following is a conceptualization of a customized maturity model for IKS:

Level	Description
Level 1: Initial	Fragmented and informal understanding of IKS
Level 2: Awareness	Inclusion in discourse and introductory curricula.
Level 3: Defined	Structured frameworks and institutional policies.
Level 4: Integrated	Interdisciplinary application across sectors.
Level 5: Optimized	Continuous innovation and global integration.

4. Effectiveness of Maturity Models in IKS

4.1 Advantages

4.1.1 Structured Integration

Maturity models provide a systematic framework for integrating IKS into modern institutions. This reduces ambiguity and ensures consistency in implementation.

4.1.2 Measurability and Evaluation

They introduce measurable indicators such as:

- Curriculum adoption rates
- Research output
- Policy implementation

4.1.3 Policy Alignment

Maturity models align well with national initiatives such as NEP 2020, which emphasizes interdisciplinary and holistic education. For instance, universities integrating IKS into multiple courses demonstrate progression from awareness to defined maturity stages.

4.1.4 Continuous Improvement

Maturity models emphasize iterative improvement, enabling systems to evolve.

4.2 Limitations

4.2.1 Reductionism

IKS is inherently holistic and non-linear, whereas maturity models are linear and structured. This mismatch can lead to oversimplification.

4.2.2 Context Sensitivity

IKS varies across regions, languages, and traditions. Standardized models may fail to capture this diversity.

4.2.3 Measurement Challenges

Many aspects of IKS—such as spirituality, ethics, and experiential knowledge—are difficult to quantify.

4.2.4 Risk of Misinterpretation

Improper application of maturity models may distort traditional knowledge or reduce it to superficial metrics.

5. Conclusion

Maturity models offer a structured and scalable framework for integrating and evaluating the Indian Knowledge System in modern contexts. They enhance clarity, measurability, and policy alignment, making them valuable tools for institutional and national development.

However, their effectiveness is limited unless they are adapted to the unique nature of IKS. The holistic, experiential, and context-dependent characteristics of IKS require flexible, hybrid maturity models that incorporate both quantitative and qualitative dimensions.

Future research should focus on developing specialized maturity models for indigenous knowledge systems, ensuring that traditional wisdom is preserved while being effectively integrated into contemporary frameworks.

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