MANAGING THE KNOWLEDGE ASSET OF
INDIGENOUS SYSTEMS OF MEDICINE

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ABSTRACT

Key Words: knowledge asset, Knowledge Management, Indigenous systems

India is a multi-lingual, multi-cultural nation emerging as a powerful nation, rich in knowledge assets from ancient times. Indigenous systems such as Ayurveda and Siddha have been evolving for the last 5000 years. These Indigenous systems prove significant in eradication of diseases as well as their prevention.

Hence this knowledge asset inscribed in ancient materials like palm leaves should be managed effectively and preserved in an appropriate manner. Knowledge Management is a practice that involves capturing and sharing of an organization’s information assets enhancing the sustainability and ability to gain competitive advantage in the present day globalization.

Managing the knowledge of an organization is very critical and value proposition. By managing organizational knowledge successfully, organizations can dramatically enhance their ability to compete with other organizations and to develop sustainability.

Management of knowledge assets is important for managers to sustain the organizational efficiency. Role of Librarians is gaining significance in managing the knowledge asset of any organization. As a medical librarian, I have documented and digitized this indigenous knowledge in the form of an Expert System. This expert system is an effective tool designed for powerful knowledge management.

Knowledge in Siddha medicine is the asset of CRIS organization. For example, a viral disease called ‘chickungunya’ spread over Tamil Nadu in the recent past could be controlled by treating with Siddha, an indigenous system of medicine. It is evident that Siddhas had documented the remedies for such diseases in palm leaves in ancient days itself.

This paper is based on knowledge management of Indigenous system of medicine which is the most ancient & more effective one. The detailed report and case studies will be dealt with the statistical support in the full paper.
MANAGING THE KNOWLEDGE ASSET OF
INDIGENOUS SYSTEMS OF MEDICINE

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India is a multi-lingual, multi-cultural nation emerging as a powerful nation, rich in knowledge assets from ancient times. Indigenous systems such as Ayurveda, Siddha and Unani have been evolving for the last 5000 years. These Indigenous systems prove significant in eradication of diseases as well as their prevention.

Hence this knowledge asset inscribed in ancient materials like palm leaves should be managed effectively and preserved in an appropriate manner. By managing organizational knowledge successfully, organizations can dramatically enhance their ability to compete with other organizations and to develop sustainability.

Management of knowledge assets is important for managers to sustain the organizational efficiency. Role of Librarians is gaining significance in managing the knowledge asset of any organization.

The organizational knowledge can be categorized into two major types namely tacit knowledge and explicit knowledge. Tacit knowledge is the knowledge which resides in the minds of individual. Tacit knowledge is intangible and difficult to capture. When the tacit knowledge is presented in the form of policies procedures or documented then it is called explicit knowledge which is tangible.

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The indigenous knowledge of medical system in India is the tacit knowledge of the ancient saints. It was not popularized because it was not documented and transferred to the next person only by observation method. Fortunately some saints have preserved this knowledge in palm leaves. Some have attempted to bring it in book form. The India system of medicine were scattered in palm leaves, cloth and paper manuscripts. Some are even inscribed on stones in the form of slogans.

Siddha system of medicine is an ancient system in South India which was not popularized by its proponents. The Siddhas (saints) invented this system who lived several hundred years back in India. India is the birth place of three famous tradition medical systems such as Ayurveda, Unani and Siddha. But these systems are still adopted by the present Indian doctors successfully. Some of the Ayurvedic medicines are prescribed by Allopathic doctors also due to its effectiveness in treating some of the disease which have no permanent cure in Allopathic medical system. The ancient knowledge about Siddha system which is very precious for curing chronic diseases is scattered in the form of palm leaves manuscripts before the invention of printing and attempts have been seriously made recently to publish them in print by our institute. Siddha medical knowledge is not yet very popular but due to its effectiveness in curing the chronic diseases this system is gradually drawing the attention at the national and International level. The best example for the effectiveness of Siddha Medical knowledge is the treatment for Chikunguniya, which has no permanent cure in Allopathy. But in the Central Research Institute for Siddha, where I am working as the Librarian, a permanent cure has been found by using Siddha medicine for Chikunguniya. This example proves the value of the knowledge assets of India in the field of medical science. Hence as a librarian I felt the responsibility of managing this knowledge asset
effectively. As a result of this I have adopted knowledge management of Siddha medical system

**Knowledge management**

Knowledge management involves enhancing organizational knowledge through sound practices of information management and organizational learning. Knowledge management is a systematic management of vital knowledge and its associated processors of creation, organizational, diffusion, use, and exploitation.

**Knowledge Hierarchy:**

Data, information, and knowledge are closely interconnected. Data lies at the lowest layer in the knowledge chain and acts as a raw material of the knowledge. Data is referred as the unformatted unstructured matter. Numbers, signals, graphics, statistics and visuals are considered as data. Information is structured data that reduces uncertainty. Knowledge is interpretation of information, which is conceived by the user. The same information may lead to different knowledge for various individuals. Wisdom is the state of human mind characterized by profound understanding and deep insight.

**Basic types of knowledge**

Tacit knowledge is also referred as procedural knowledge, which is needed to act and react in an environment. Tacit knowledge is not structured; intangible, cannot be recoded and represents experience ideas insides values and judgment of people.

Explicit knowledge referred as procedural knowledge, which can be written or
documented. Explicit knowledge is semi-structured and represents tangible or recorded knowledge. Documents, e-mail voicemail, Multimedia etc. are examples of explicit knowledge.

THE PROCESS OF KM: -

The successful knowledge management involves the following activities.

1. Capturing existing knowledge
2. Packaging knowledge
3. Creating new knowledge
4. Utilizing or sharing knowledge, and
5. Re-using knowledge.

Capturing knowledge

Capturing tacit knowledge is very difficult since it is in the minds of the experts which could not be expressed in a comprehensive manner. Conceptualizing individual thoughts depends on their communication skills and willingness to reveal the information. Capturing the Siddha medical knowledge was available physically in poetry form but the problem is translating it in English.

However the knowledge was transcribed, annotated and translated in English with the help of experts.

Organization of knowledge

The knowledge which is collected have to be organized by using a classification scheme. In Decimal Classification there is no schedule for Siddha medicine. In Colon classification there is a number for the Main class (Main subject) But number are not
given for micro level classification. Since the CC is analytic synthetic classification scheme, the classifier has freedom to construct new numbers by using various devices which makes the system very flexible unlike DDC. Hence the Siddha knowledge resources were classified using the devices. Examples:

**Gunapadam-Mooligai Vaguppu (Siddha Materia Medica-Medicinal Plants Division)**, the CC number allotted is **LC: 4:6(I)** where ‘L’ for medicine; ‘C’ for Siddha; ‘4’ for Diseases and ‘6’ for treatment and ‘I’ stands for subject i.e.,Botany, as this book deals with the descriptions of different varieties of medicinal plants used for treating different diseases. So also for other branches of Siddha medical knowledge, CC has been proved flexible and convenient for shelving, weeding and locating.

All the facets can be combined and brought together in a single entity for easy and quick reference.

<table>
<thead>
<tr>
<th>Category</th>
<th>LC:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toxicology &amp; Jurisprudence</td>
<td>44 0a Z, 91</td>
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<tr>
<td>Marunthugalin Seimurai</td>
<td>4:6 (LZ5)</td>
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<tr>
<td>Dictionaries</td>
<td>(P31:4) K</td>
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<tr>
<td>Karutharangu (Seminar, Symposium etc.)</td>
<td>p 4411, N*</td>
</tr>
<tr>
<td>Maanadu &amp; Payilagam (Conferences &amp; Workshops res.)</td>
<td>p 44111, N*</td>
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* The period of publication must be added to this.

Likewise, other systems of Indian Medicine can utilize this newly designed classification schedule and get benefited.
Packaging the knowledge

Packaging knowledge of Siddha medicine was done in the form of expert system.

Display

This output is an example for the first part of the first component of knowledge base, containing all the features such as information in the form Tamil poetry, citation of the Tamil poetry, incorporation of relevant picture showing the pathological symptoms, etc.

Creating new knowledge

Library professionals can create new knowledge but they have certain limitations. They cannot create new knowledge in other disciplines. They can create new knowledge only using information technology which needs skills in IT. They can create knowledge...
only using the sources already existing in various fields of knowledge. They can design expert systems or multimedia documents or if the person has expertise knowledge in programming knowledge he or she can design new systems. For example expert systems for pharmaceutical medicines and Indian medical plants and Bovine diseases were designed by the research scholar in the department of Information science in the University of Madras. Another scholar designed a simple diagnostic system for reading the diabetic condition of a person by studying the weight and height of the person. Such information products designed on the basis of the specific requirement of the users will enhance the creativity of the library users.

**Utilizing or sharing knowledge**

In the present IT era there are number of techniques and avenues available for sharing knowledge. For example knowledge can be shared by e-mails videoconferencing, designing website, portals and blogs etc. But with all these facilities marketing of information plays a vital role in the utilization of knowledge. Marketing of information involves popularizing the knowledge repositories or knowledge base system among the users for the maximum utilization and reusing of knowledge.

**Conclusion**

This article proves that library professionals can become expert knowledge managers in this knowledge base society. Knowledge management in libraries will pave way for the maximum utilization of the resources. It will enhance creativity and creation of new knowledge among the users which will optimize the development and sustainability of the organization.

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