

Knowledge Management in Fisheries Sector

A Study of Kochi Regional Institutions

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ABSTRACT

The article discusses urgent need of proper Knowledge Management in Fisheries sector in Kochi region. Kochi has a potential to become knowledge gate way for the fisheries knowledge since more than a dozen major institutions are doing parallel knowledge processing and dissemination in their circles. Points out the importance of co-operation in Knowledge Management among the institutions of the region to benefit mutually. Since many decision-making offices are situated in the region, suggests solution for the need of timely exchanging of scientific and technological knowledge. Regional strategies of knowledge management through cooperation, sharing and exchange of knowledge shall help overall national development. LIS is highly relevant for making KM a success. Possibility of combining LIS and KM have to be exploited for evolving KM culture. Evaluates the knowledge capacity of various institutions and offices in the region. It emphasizes the need for Fisheries Knowledge Management System involving professional understanding of knowledge. Around 30 institutions small and large within the geographical proximity of 8 km radius is an added factor for knowledge sharing especially in digital era. Suggest a knowledge Portal for disseminating both Tacit and Explicit Knowledge for the development of the sector and benefits of the society.

1. Introduction:

Fisheries is an area where regional and global cooperation quicken the phase of development and bring together different communities that have common resources and identical management problems. The planning for development of fisheries sector requires a considerable amount of knowledge of fishing communities, their occupational structure, income levels etc. Because of the complexity of the problem, without such information and a thorough understanding of the constraints, the development efforts may get frustrated [1]. Information is an ingredient and a problem-solving tool and is a key factor for transformation of the society. It is a fundamental principle of any management decision and action that it needs to be based on the best available information. Fisheries is no exception to this principle. However, the complexity and high degrees of uncertainty that are so common in

fisheries management frequently make it very difficult to implement by using best available knowledge in a suitable manner. Modern society is termed as 'Knowledge Society'. Knowledge Society refers to any society where knowledge is the primary production resource instead of capital and labor. Managing knowledge has become the most important task for modern society. Knowledge Management (KM) deals with organizational processes and strategies to consciously manage this critical asset. Knowledge environments are clearly information centered, and provide unique opportunity for information professionals to become core part of their organization [2]. The KM environment needs excellent Information Management for its implementation and success. In Library and Information Science Knowledge Management simply means 'the right knowledge to the right user at the right time at right format at right cost. In management practice that uses an organization's intellectual capital to enable the enterprise to achieve its organizational mission. Intellectual capital is the knowledge that comes from the developed and accumulated experience, service, and products of the organization's employees, at all employment levels. When an organization establishes and commits to KM as its management methodology, the organization can be said to be using its collective intellect to accomplish its strategic objectives [3].

2. Information, Knowledge, and KM System

Information services are one of the key factors of knowledge industry. The 'Information age' referred commonly as 'Knowledge age'. Knowledge can be (a) explicit, that can be captured in a format which can be manually or electronically documented and (b) tacit, that is, not captured or recorded, but available through the social interactions of those who have it and those who need to access it, or both. Successful KM initiatives try to manage both explicit and tacit knowledge. Library and Information Science (LIS), mainly deals with management of explicit knowledge. The organization of knowledge within the mind, or brain, is a primary focus of cognitive psychology and cognitive science [4]

Role of LIS in KM is increasingly being identified. KM initiatives are most likely to be introduced and succeeded in the libraries that function as learning centre, have strategic goals, a knowledge sharing culture, the versatility to accept new challenges and try different approaches, and the ability to harness the power of IT [5]. Effective bibliometric methods, SDI profiles, heuristics of a Reference Librarian in answering reference queries, capturing knowledge etc. are to be studied further. Knowledge acquired by librarians about best sources or best practices through experience comprise tacit knowledge of that library. As repositories of knowledge and information for distribution and sharing, libraries represent an indispensable link in the scientific system chain. Cao says that the libraries will increasingly be

reposed with development and application of information resources, construction of virtual libraries and portals, protection of intellectual property rights in the new century and shall act as the base for knowledge innovation [6]. Knowledge and expertise existing in organizations generate more value when they are rapidly applied and transferred. It is of limited value if it is not shared. According to Wansley [7] such systems are referred to as KM Systems as follows 1. Content Management Tools; 2. Knowledge Sharing Tools; 3. Knowledge Search and Retrieval Systems 4. General KM Systems.

3. Need of KM in Fisheries Sector

Knowledge and entrepreneurship would become decisive factors in developing a sustainable economy and an equitable society with adequate and affordable food and ecological security for all. Fisheries and aquaculture sector has been recognized as the fastest growing food production system during the last three decades. Since these are a specialized field, speedy and effective exploitation of the knowledge acquired in the sector has to be applied for development of this important sector. Sharing of knowledge on aquaculture and fisheries is an important area which the related institutions can cooperate [8].

The importance of developing infrastructure and adequate communication networks among member institutions is essential for the process of economic cooperation since Fisheries is an economic activity. The development of a good management of fishery resources is generally the result of the quality of research. The situation provides an ample scope for an Aquatic and Fisheries Information System to fill the knowledge vacuum with a futuristic view. Importance of the issue had been recognized but things remain without much change in the field. Raman Nair opined that the sector needs a strong and efficient Fisheries Information System that provides for collection, organization and accessing fisheries knowledge [9].

4. AQUATIC AND FISHERIES INSTITUTIONS AND OFFICES IN KOCHI REGION

Under Govt. of India

1. Central Institute of Fisheries Nautical & Engineering Training (CIFNET)
2. Fisheries Survey of India (FSI), Kochi
3. National Institute of Fisheries Post Harvest Technology & Training,
4. (NIFPHATT)
5. Products Export Development Authority (MPEDA)
6. MPEDA Regional Centre (NETFISH), Vallarpadam.
7. Centre for Marine Living Resources & Ecology (CMLRE)
8. National Physical and Oceanographic Laboratory (NPOL)
9. National Institute of Oceanography (NIO)
10. Central Inland Capture Fisheries Research Institute (CIFRI)

11. Central Institute of Fisheries Technology (**CIFT**)
12. Central Marine Fisheries Research Institute (**CMFRI**)
13. National Bureau of Fish Genetic Resources (**NBFGR**)

B. Fisheries offices under Government of Kerala in the region

1. Office of the Joint Director of Fisheries, (JD) Central Zone.
2. Office of the Deputy Director of Fisheries, (DD)
3. **Matsyafed** District Office, Thoppumpady, Ernakulam.
4. National Institute of Fisheries administration and Management (**NIFAM**)
5. Fisheries Management Society (**FIRMA**), Kadungalloor.
6. Agency for Development of Aquaculture (**ADAK**)
7. Fish Farmers Development Society (FFDA)
8. Society for Assistance to Fisherwomen (SAF), Kadungalloor.

C. Universities

1. Kerala University of Fisheries and Ocean studies (KUFOS)
2. Fisheries Station, Puthuvypu, Vypeen under KUFOS.
3. School of Ocean Science & Technology. (*CUSAT*)
4. School of Industrial Fisheries. (*CUSAT*)
5. Centre for Integrated Management of Coastal Zones. (*CUSAT*)
6. Centre for Mangrove Studies (*CUSAT*).
7. National Centre for Aquatic Animal Health (*CUSAT*).
8. Centre for Monsoon Studies. (*CUSAT*).
9. St. Albert's College, Banerjee Road, Ernakulam. (MGU)
10. Sacred Heart College, Thevara, Kochi. (MGU).
11. Indian Maritime University, Kochi Campus.

5. Literature Review

Literature review on the topic of KM reveals that there is a plethora of literature published yearly mainly dealing with KM in business environment. KM in the libraries have not been extensively studied. Studies on KM aspects in specialized sectors such as fisheries sector are few. Significant body of literature available, dealing with KM in business environment has been helpful to frame this study focusing on the specific fisheries sector.

6. Aims and Objectives of the Study

The study aims to investigate the basic Knowledge Management aspects in the Fisheries institutional libraries in Kochi Region and to suggest the ways in which the libraries could add value to their services by engaging best KM practices and cooperation among libraries in the region.

7. Mode of study

A quick survey has been conducted to trace the tenets of KM in 26 fisheries, ocean and allied sector libraries in Kochi region through a Questionnaire to the professionals in the listed libraries in the region. The study also used Interview and Observation methods to collect data. Secondary data has been collected from concerned websites and primary literature. Head of the libraries, concerned senior professionals, and Scientists

in charge of library and information systems were interviewed to get in-depth information about KM practices followed in their libraries. Data were analyzed with mean and mode while the data gathered through interview and observation, were analyzed qualitatively.

8.Results and Discussion

The Institutions in the sector are not implemented any KMSs. 76% of the respondents revealed that the expertise of Library professionals is not considered and are not involved in the KM initiatives. Meetings and gatherings are not there to discuss the knowledge strength and weakness. The concept of KM is known to the professionals in the sector. 82 % of respondents have responded positively and 80% support KM activities in the libraries. Importance of knowledge is known to the professionals and 74 % of the professionals opined that the LIS have an increased role in KM activities in their respective organizations. They all know the need of acquisition, capture, conversion of tacit to explicit knowledge to the posterity.

84 % of respondents opined that their institutions have ICT infrastructure that can act as a tool for successful KM system. 66% of the respondents could not say any KM activities or products that are being carried out in their library. The major reason pointed out by the respondents is the lack of policy on KM in their institutes. Other hindrances are lack of Programmes, Funds, Awareness of knowledge management, guidance and necessary training.

96 % of the professionals are not aware of the knowledge resources of the other regional libraries and no opportunities are there to know that. 90% are willing to take part in regional cooperation and online resource sharing. 20% are ready to take responsibilities in future endeavors.

Information services are most important in modern libraries. However, efficient Reference Service based on tacit knowledge of the Reference Librarian can be considered as a part of KM concepts. 92% of the respondents opined that institute/library do not have programs for capturing expert tacit knowledge of the professionals.

Libraries in the regional sector have taken up KM initiatives such as Electronic Theses and Dissertations, Digital Archives, Repositories that are made operational with the expertise and resources of the libraries. These efforts are very appreciable. However, libraries have not taken up creation and maintenance of Portals because, they needed support, from their institutions itself.

CMFRI, KUFOS, CUSAT and CIFT are the major fisheries institutions, that have implemented repository of institutional knowledge.

Their initiatives are accessible globally. More libraries could initiate such KM activities if provide them necessary support.

9. Findings

More than 30+ institutions, small and large, specialized in Fisheries and allied sciences in Kochi region. Out of these the knowledge management systems of CMFRI, KUFOS, CIFT, CUSAT are ranked top in terms of knowledge resources. Any one of the institutions can come voluntarily in a leading role as apex center of the proposed regional Fisheries Information System of Kochi (FISK)

Need for a strong and efficient Fisheries Information System that provides for collection, organization and accessing fisheries knowledge has been stressed earlier. [9]. Institutional network based on cooperative agreements, is absent among fisheries institutions. Networking and sharing of information by utilizing the power of ICT shall pave way for excellent information management stems that are essential for successful KM. National fisheries Institutions, especially under ICAR, have rich knowledge capacity. This knowledge base has to be utilized in the sector.

10. Conclusions

This study undoubtedly reveals that KM initiatives and exchange of scientific and technological information in fisheries sector among the regional member institutions shall benefit mutually and will benefit to society. A portal shall serve as a single point of access for consolidated information resources that can meet information needs of decision makers and stake holders in the sector. Information shared over the portals shall pave way for regional cooperation [10]. A knowledge society can influence activism taking place in the sector to take into consideration issues affecting our environment and consequently quality of life. Such knowledge-based activism shall fill the information gap for stake holders in Kochi region. KM in the sector can boost research for the benefits of society. The authors offer to continue the effort and hope definitely will make some critical steps with the cooperation among the concerned institutions, towards the findings and will make result in near future.

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