Research Paper

Volume : 4 | Issue : 10 | October 2015 • ISSN No 2277 - 8179

Need for Knowledge Management Strategies to Improve the Indian Agriculture

Library Science

KEYWORDS : Agriculture, Knowledge Management, Agri-Information, Innovative agriculture

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ABSTRACT

When look into the economic composition of the Indian Economy in view of contribution to the GDP Agriculture stands at the bottom with 16% after service and the manufacturing sector. In case of contribution to the employment Agriculture stands at the top with 49%. Looking at the facts we need to accept the underperformance of agriculture sector. Most of the time we blame the nature and farmers capacity, but we lack in strategic analysis and understanding of the reasons for the real failure. When we started comparative study with other nations seems we are for behind in innovative solutions and we are far ahead of sticking to old strategies and placing the blame on monsoon. In this paper we have made an attempt to analyze the reasons for the failure of the Indian Agriculture and the role of Knowledge management in enhancing the performance of Agriculture on the bases of study conducted at Villages of KA-8 Northern Transition Zone of Agro-climatic region of Karnataka which includes Hukkeri, Chikkodi, Balihongali, Dharwad, Haveri, Shiggoan, Shirahatti, Kundgol, Savanur, Hubli, Dharwad, Byadagi, Hirekerur, Ranibenur

Introduction

Agriculture is the key income source and livelihood for around three-fourths of India's total population specifically for those who live in villages and agriculture is the only major source which can feed whole nation. But in other side as compare to the other areas of economy agriculture which is considered as the backbone of Indian economy is passing through many turbulent situations, which intern resulting in declining contribution to the India's GDP. Today's society which is called as Knowledge Society is mainly driven by the accelerating speed of change and shaped by adopting competitive changes which is also a crucial for existence. As we know every area of today's society including agriculture is acknowledging the increasing impact of knowledge in their success. But in case of agricultural if we analyze the real situation it is clear that we have not made any systematic attempt to bring Knowledge based practices which can also be called as Knowledge Management (KM) practices in Agriculture. It is really shocking to see the success of the Agriculture in Israel where the climatic conditions are worst than India the major reason for their success is knowledge based practices and innovativeness in agriculture made the country a research hub agriculture and most of the nations looking towards Israel when it comes to progress in agriculture.

Role of KM in Agriculture

Bringing knowledge management practices in Agriculture to manage the Agri-knowledge is the most challenging factor as most of which is hidden in the human mind in the form of tacit knowledge. The knowledge management practices which we are planning to bring in agriculture will enhance the required competency and productivity. KM approach in agriculture is not only confined to managing the tacit and explicit knowledge and information also focuses on many other competitive strategies which can enhance the intellectual and managerial capacity of agri-community in a holistic manner.

To address most of the problems of the Indian agriculture through improving the intellectual efficiency of the farming community, through knowledge management practices. Knowledge management is a set of process and practices which are able to bring competitive edge to every sector and which is already notably acknowledged its role in the success of corporate world with its strategic support. Application of KM in agriculture has lot of feasibility and relevance for Indian Agriculture. Being a strategic approach KM can play a recognizable role in addressing the major problems of agriculture through education and knowledge. Here the KM approach which we are going to implement is designed in a way to address most of the problems of agriculture through identifying and implementing practices in various areas according to its feasibility, relevance and availability of resources.

Government has been investing lot of money on agriculture and rural development. When we think of cost benefit analysis of these plans and programmes it seems to be dissatisfactory in most of the programmes. Today major focus is needed to invest in setting up of active knowledge centres which can really address the problems playing the role in the failure of all these developmental programmes. Setting up of knowledge centres in rural areas will help to bring all the possible knowledge management practices in all the possible areas of agriculture and rural development.

India is one of the rapidly developing nations of the modern world. It has become an independent country, a model republic, more than six decades ago. During this period the country has been engaged in efforts to attain development and growth in various areas such as building infrastructure, finance, agriculture, industrialization, rural development and so on. As compared to the various areas of development agriculture, have not reached the desired level of development and reflects lot of scope for development if we can think of competitive strategies.

Rural India is real India where almost 65% of the nation's population lives and most of them depend on agriculture as a means of their life. The real development of the nation depends on the development of villages and agriculture which is the need of the hour. A country with a large population has to be nearly self-sufficient in essential food items which can be realized by agriculture development. Hence, agriculture development must top the agenda of the policymakers.

When we analyzed the real problem in agriculture it is not the scarcity of resources or scarcity of programmes it is the problem of unawareness and lack of orientation and knowledge.. This situation sounds the real role and need of knowledge management approach towards these problems, which is more vital than all other responsibilities towards the success of agriculture.

People are restricting the application of Knowledge Management Strategies for Corporate world only, but after thorough understanding of the scope of KM in agriculture there is wide scope to KM to address most of the problems of Indian agriculture and to give a competitive edge for agriculture. With this understanding

the researcher is aimed to analyzing each knowledge management strategy and its applicability and its impact in agriculture. After analyzing the tremendous impact of implementing the KM practices in Agriculture and knowing previously there was no such integrated effort to address all the problems through Knowledge Management, the present study proposed as a major project to contribute towards design and application of Knowledge Management practices that will be customized towards the agricultural needs in general and in the study area in particular.

	KM Practice	Impact
1	**Agriculture Information Management** Information management as a KM practice should address the needs of all categories of users. Information needed for the farmers should be collected, organized and presented in manner which is easy to access and use by both literates as well as illiterate farmers. Knowledge Manager can create a portal or database or if the facilities are limited he can use manual methods with the motto of reaching the farmers. In brief he should create "one-stop center for agricultural information for all farmers".	-Brings Innovation in agriculture by scientific information. -Increases the Economy in agriculture. - Improve marketing strategy by agriculture market information. -Effective use of administrative policies by policy information. -Systematic weather information helps to tackle with weather variations, apart from these there are many other impacts of information. -Brings the awareness by timely information.
2	**Managing Tacit Knowledge/Knowledge in People(Farmers & Experts) Heads** **Collaboration** Improving collaboration in farming is the need for the day where the farming sector facing the scarcity of physical as well intellectual resources. Ex- collaborative farming, information sharing, collective bargaining, Etc. As a KM practice we should bring the systematic collaboration among the farmers **Story Telling** As a KM practice story telling technique can be used to share the tacit knowledge of the experts and farmers who are succeeded in the farming. Knowledge managers should present the success of farmers and their way of success in story form which can inspire all sections of farmers. Ex- Story of a farmer who is earning 20 lack rupees per year in his 2 acres of land in Karnataka. **Mind Mapping** Mind mapping is a technique of organizing the thoughts and ideas before executing any task. Farmers are having many thoughts and ideas to do but they are not able to organize their thoughts and ideas in a systematic manner. As a KM practice we should educate them to organize their ideas and plan in very systematic manner which will help to execute their tasks in a planned manner. **Community of Practice** COP Refers to the process of social learning that occurs when people who have a common interest in some subject or problem collaborate over an extended period to share ideas, find solutions, and build innovations. As a KM practice in agriculture we can use the COP as a platform to bring the farmers of common interest together through which they can share their innovative ideas and solve the problems together. There are many such practices but doing it in view of KM will make it most strategic. **Learning** Learning is acquiring new knowledge, behaviors, skills and values. As a KM practice we should motivate the farmers towards learning by providing the essential resources and atmosphere.	-Farmers can address the scarcity of human and material resources. - Increase the cooperation among the farmers -Improve the efficiency of farming by knowledge sharing. -Farmers can get competitive price for their product with collective bargaining. -Helps to motivate the farmers towards strategic farming. -Easy way of presenting the scientific ideas. -creates interest in learning. -Can be a lesson for farmers -Brings the planning strategy in farming. -Systematic execution of farming activities -Brings the efficiency by avoiding the wastage. -Improve the Cooperation - Provides a platform to share the innovative ideas. -Improve the social values among the farmers. - Information exchange and sharing of best practices. -Improve the intellectual efficiency of the farmers. -Brings the competency in farming.
3	**Agricultural Memory** Agricultural memory refers to stored information gained from experience that can be used for current decisions. It is not centrally stored, but distributed across different facilities where it is retained. **Knowledge Re Use** As a KM practice we can capture the knowledge and experience from the farmers and experts which can be reused for timely utility. This can be captured in AV form or in text form. **Best Practices** There are many success stories in agriculture which are the results of best practices in their operations. As a KM practice we can capture and organize those best practices in a systematic manner which can be studied and practiced by other farmers wherever necessary. **Lessons Learned** With lots of success their might be many failures in agriculture practices with those failures farmers use to learn that, not to repeat the practice which caused the failures. As a KM practice we should capture these experiences in a systematic manner preserve them as a 'Lessons Learned Database' which can be strategic source for farmers. **Who Know What** We can find many experts in many areas of farming. As a KM practice we can collect the information about experts and their field of expertise and skills which can be managed in a database as 'Who Know What Database' it will be helpful to use the expertise wherever needed to improve the agricultural practice.	-Capturing, organizing and disseminating experience and expertise of farmers will help to use the potential knowledge for timely benefit. -Helps to use the experience of farmers and experts in a systematic manner. -Provides a base to tacit knowledge of farmers and experts. -Helps to make use of best practices for successful farming. -Helps to avoid unnecessary wastage of time and resources. - Helps to create the awareness about unhealthy practices. - Provide insight about what is good and what is not good in particular project - Helps to determine the best way of doing thins - Helps to identify experts in various areas of Agriculture. - Provides a platform for the potential use of human expertise and experience.

4	**Conversion of Agriculture Information into Knowledge** Any organizations can provide information, but those that can convert that information to knowledge will be most successful.	-This strategy provides a way to use the available information for the timely advantages.
	Logical Intelligence It is a kind of critical thinking. Improving logical thinking in farmers will help them to think scientifically and take thoughtful decisions.	- Critical thinking improves the competency in decision making.
	Competitive Intelligence Competitive intelligence is the information gathered from various competitors and other farmers who are succeeded. Providing Competitive Intelligence to farmers will help to improve their efficiency and the competence.	- Creates the comparative skills in the farmers. - Increase the competency in various operations of farming.
	Business Intelligence Business Intelligence refers to skills, processes, technologies, applications and practices used to support decision making.	-Improve the marketing strategies among the farmers. - Improve the decision making process.

Situation demands for KM in Agriculture

With the analysis of following data we can realize the need of Knowledge Management Strategies in the field of agriculture.

Table1. Awareness about the government programmes to boos the agriculture

Sl No.	Govt. Programmes	No of Respondents	Awareness about the programme	Not Known about the Program
1	Karnataka Seed Mission	60	21	39
2	Public Farm Mechanization	60	13	47
3	National Food Security Mission	60	09	51
4	Soil Health Mission	60	13	47
5	Minimum Support Price	60	22	38
6	Aam Admi Bima Yojane	60	17	43

The above table symbolizes the lack of awareness among the farmers. Though there are many programmes implemented by the state and the central government but their reach to the people not significant and it indicates the demand of the KM strategies to educate the farmers about the programmes.

Table2 Land holdings and beneficiaries

Sl No.	Land Holdings (in Acres)	No of Respondents	No of Beneficiaries
1	01 to 03 Acres	50	11
2	Above 3 Acres	50	31

Above table shows that majority of the beneficiaries are large land holders as compare to the small land holders. This shows the trends of regressive subsidies this happens due to lack of strategic information among the small land holders which can be removed by KM strategies.

Table3 Education beneficiaries

Sl No.	Education level	No of Respondents	No of Beneficiaries
1	Less than 10th standard	50	13
2	Above 10th standard	50	29

Education plays an important role in every field of the life. Above table says that the farmers who are well educated are better in utilizing the government programmes than the farmers who are less educated so to make government programmes more successful we need to educate the farmers about the government programmes to the farmers who are not in a position to study and understand the government programmes.

Impact of KM in agriculture

- Systematic audit of agriculture knowledge
- Extracting and managing the traditional and modern knowledge for the benefit of farmers
- Bringing Businesslike approach in agriculture
- Educating farmers about all the government programmes, projects and other initiatives through a single platform called **rural knowledge centre** particularly using technology and human resource
- Rural Knowledge Centres as platform for brainstorming to solve the agriculture sector with the association of farmers, experts and researchers in the field of agriculture
- Making use of individual expertise for community welfare
- Sharing the best practices of agriculture for the benefit of agriculture community
- Solving the agricultural problems with a co-operative approach
- Field level application of Agriculture research output
- Improving the participation of farming community in planning and implementation of the developmental programmes
- Making agriculture as an attractive profession by giving competitive edge through many KM strategies

Conclusion

Knowledge management provides many ways to make agriculture innovative but it all depends on how we make use of it. If we take an initiation to implement the above discussed and many other ideas it will be greater contribution to the overcome the problems of agriculture and realize the innovative agriculture with more efficiency.

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