

Relationship between Change Management Ability of Directors of Research Institutes and Effectiveness of Change in their Organizations in the Indian National Agricultural Research System

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This paper studies the ability of leaders in effective organizational change management. It gives the details of an action research conducted in agricultural research organization. It is necessary for any organization to keep pace with the dynamic internal and external environments. To bring in organizational change, the abilities of the existing leaders play a vital role. They can be termed as the direct change agents. Their knowledge, skill, and willingness help the organization in facilitating change.

Introduction

It is essential for organizations to keep pace with the changing internal and external environments of the organizations. It is more so in these days of global competition due to liberalization and the intellectual property regime. Bringing about change successfully in organizations requires certain change management abilities in the change agents. The pace of change that can be brought about will depend upon the position of the change agent in the hierarchy and also his/her excellence in transience management skills and his/her willingness to utilize the same.

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Harigopal (2001) has stated that to survive and eventually to prosper, an organization must monitor its external environment and align itself with changes that occur or tend to occur. Sometimes, change could be so rapid that there is no time to adjust before more change takes place. Yet, it is the ability to plan for, implement and manage change that seems to be the core factor that separates successful organizations from unsuccessful ones. The successful ones do not believe in change *per se* but a proactive (rather than reactive) change, radical when required, and reinvent themselves as and when necessary. Such change management would require heads of institutions having high change management ability.

A number of instruments have been developed, by various social scientists, to measure personal characteristics of change agents, which are thought to measure their change management abilities. Some of these instruments are listed in the Table 1.

Table 1: Instruments Used for the Study on Transcience Management

Sl. No.	Instrument	Author	Change Management Ability Sought to be Measured
1	X, Y or Z	Bishop and Taylor (1995)	Managerial style and its appropriateness to organizational change
2	Resiliency Quiz: Change Management	Siebert (1996)	Resilience and amenability to change
3	Leadership Effectiveness and Adaptability Description (LEAD) Questionnaire	Hersey and Blanchard (1977)	Leadership style and effectiveness
4	Myers-Briggs Type Indicator (MBTI)	Briggs-Myers and McCaulley, 1985	Personality type
5	Fundamental Interpersonal Relationships Orientation-Behavior (FIRO-B)	Reiffer, Heslin and Jones (1976)	Interpersonal relationships
6	Stress Test	Miller and Smith (2000)	Vulnerability to stress
7	Time Management Questionnaire	Anonymous (2003)	Time management efficiency
8	Power Orientation Test	Christie and Gels (1970)	Power orientation
9	Self-monitoring Scale	Lennox and Wolfe (1984)	Self-monitoring status
10	How Political Are You?	DuBrin (1990)	Extent of politics in the nature of the individual

Conner (1993) has stated that when the boss is the sponsor of change the author has position to enforce change and he must have the ability to understand the seven fundamental issues that contribute to the dramatic increase in the magnitude of changes. These are faster communication and knowledge acquisition, growing worldwide population, increasing interdependence and competition, limited resources, diversifying political and religious ideologies, constant transitions of power, and ecological distress. The author further stated that two prerequisites for major organizational change are Pain: a critical mass of information that justifies breaking from the *status quo* and Remedy: desirable, accessible actions that would solve the problem or take advantage of the opportunity. To change, a person must both be willing and able to do so. Deficiencies in ability result from inadequate skills and should be addressed by training. A lack of willingness stems from a shortage of motivation and should be addressed through consequence management (the combination of rewards and punishments). In order to address change directors need the abilities described.

Methodology

Objective of the Study: To study the relationship between change management ability of directors of research institutes and the effectiveness of change implemented by them at their institutions.

Materials and Methods: Twenty-seven directors of constituent institutes of the Indian Council of Agricultural Research—The Indian National Agricultural R&D Organization, listed in Table 2 were invited to participate in the experimental study on change management. Of them, directors of only 19 institutes could participate in the study.

No.	Division/Institution	No.	Division/Institution
A	Crops Division	C	Engineering Division
01	National Bureau of Plant Genetic Resources, New Delhi.*	16	Central Institute of Post Harvest Engineering and Technology, Ludhiana.*
02	Indian Institute of Sugarcane Research, Lucknow.	17	Central Institute of Agricultural Engineering, Bhopal.
03	Directorate of Oilseeds Research, Hyderabad.	18	Central Institute of Research for Cotton Technology, Mumbai.*
04	Directorate of Rice Research, Hyderabad.	19	Central Research Institute for Jute and Allied Fibers, Barrackpore.
05	National Research Centre for Weed Science, Jabalpur.*		

Contd...

No.	Division/Institution	No.	Division/Institution
06	National Research Center for Medicinal and Aromatic Plants, Anand.	D	Animal Sciences Division
07	Vivekananda Parvathiya Krishi Anusandhan Shala, Almora.	20	National Research Centre for Equines, Hissar.
08	National Bureau of Agriculturally Important Microorganisms, New Delhi.	21	National Research Centre on Yak, Dirang.
B	Horticulture Division	E	Fisheries Division
09	Indian Institute of Vegetable Research, Varanasi.*	22	Central Marine Fisheries Research Institute, Cochin.
10	Indian Institute of Horticultural Research, Bangalore.	F	Extension Division
11	Indian Institute of Spices Research, Kozhikode.*	23	National Research Centre for Women in Agriculture, Bhubaneswar.
12	Central Institute of Temperate Horticulture, Srinagar.*	G	Natural Resource Management Division
13	National Research Center for Mushrooms, Solan.	24	ICAR Research Complex for Eastern Region, Patna.*
14	Central Agricultural Research Institute, Port Blair.	25	ICAR Research Complex for NEH Region, Barapani.
15	National Research Center for Orchids, Gangtok.	26	ICAR Research Complex for Goa, Goa.
		H	Management and Statistics Division
		27	National Centre for Agricultural Economics and Policy Research, New Delhi.

Note: * Institutions that did not participate in the study.

In the workshop the directors of the participating institutes were sensitized on the concept and process of transience management and they were facilitated to synthesize their experiences on change management at their institutes. Following this, the directors were administered 10 instruments to assess their personality traits with reference to change management. For this 10 widely used instruments mentioned in the Table 1, whose validity and reliability are well-tested, were employed. All the 19 participating directors were administered the 10 instruments. Of these, only 10 submitted completed instruments. Rao *et al.* (2006) have described a method whereby the scores obtained by the instruments can be reduced to a single score and the people obtaining such a

single score can be classified into five groups describing their composite change management ability on the basis of these 10 tests. Based on these 10 responses, the results are presented in the findings.

The directors were then asked to prepare a road map for change in their institutes. They were then required to implement the change process over a period of two years, which was monitored from time to time, and a final report was obtained on the implementation of change. Rao *et al.* (2006) have described a method where the change plans and the implementation plans can be evaluated; and based on the scores they can be listed on the merit of effectiveness of the preparation of the plan and later its implementation. The results of the assessment of the plan and their implementation are presented in the findings. In this study the authors attempted to correlate the change management skills of the directors as measured by the various instruments with their actual change management skills as assessed by their preparation of change plans and their implementation.

Based on this study, it is attempted to suggest measures for managing change, formulate recommendations for change management in research organizations and to improve basic change management tactics in research organizations.

Results and Discussion

In Table 3 is presented the evaluation of the directors with reference to their personality characteristics in relation to the traits thought to be important for effective management. This evaluation is based on a consolidated score obtained on averaging the results of 10 instruments, which were used to measure these traits. The details of the instruments and the method of consolidating the scores have been described in the report of Rao *et al.* (2006).

Class		Number	Code Numbers of Institutes
Rating	Percentage (%)		
Excellent	> 75	0	-
Very Good	> 65	5	1, 18, 3, 15, 5
Good	> 55	4	9, 13, 16, 12,
Fair	> 45	1	11
Not Good Enough	< 45	0	-
Not Submitted	-	9	2, 4, 6, 7, 8, 10, 14, 17, 19
Not Participated	-	8	-

In Table 3 it is observed that while none of the directors scored excellent, five have scored very good, four good and one fair of the 10 who have submitted the results of the instrument. Half of the respondents are very good in relation to their personal characteristics with reference to transience management. It is to be measured that if these skills will actually correspond to action in developing and implementing effective change management plans. For this purpose all the participating directors were asked to develop the road map for transience management in their institutes and then to implement it and present a final report on the extent of success of the implementation. The change plans and the implementation reports were evaluated by the method described by Rao *et al.* (2006) and the results are presented in Table 4.

Table 4: Relationship between the Quality of the Road Maps Prepared and the Effectiveness of the Implementation of the Road Maps of the Institutes

Evaluation		Number		Code Numbers of Institutes which Submitted	
Description	Range	Plan	Implementation Report	Plan	Implementation Report
Excellent	21-25	3	1	1, 3, 7	1
Very Good	17-20	3	2	8, 15, 18	8, 18
Good	13-16	8	3	4, 5, 9, 10, 11, 13, 14, 16	5, 9, 11
Fair	9-12	3	0	6, 17, 19	–
Poor	5-8	2	0	2, 12	–
Not Submitted	–	0	13	0	13
Total	–	19	19	19	19

It is observed from the table 4 that all the participating directors submitted road maps for change, while only six have submitted implementation reports. But 13 have not done so. This shows that a workshop in retreat mode for conducting strategic managerial activities (such as planning for change) is very effective than expecting such activities to happen in the backhome work environment where the directors may face a number of distractions and may be engaged in 'fire fighting'. It is also observed that while the workshop retreat mode is effective it may not always be efficient as observed from three fair and two poor plans prepared by the participants. It is also interesting to note that at least three participants prepared excellent plans while three more prepared very good plans and a majority of the participants eight prepared good plans.

With reference to implementation reports only one was excellent, while two were very good, and three were good of the six reports that were submitted. Had there been a workshop in the retreat mode for the presentation of the implementation report it is assumed that the response would have been much

better. The results also show that the planning was always superior to the implementation both in terms of the number and the quality of the plans. It is also observed that only better plans resulted in better implementation and submission of reports while poorer plans were perhaps not implemented at all and were certainly not reported.

It was attempted to correlate the personal characteristics of the directors and their transience management by looking at the scores of the participating directors and their transience management activities in the respective institutions. The scores of the evaluation of the road maps for change, evaluation of the implementation of these road maps and also the evaluation of the personal characteristics of the directors of the institutes are recorded in Table 5. The number in each category as well as the code number of institutions falling in that category have been classified.

Table 5: Classification of the Institutes as per the Evaluation of their Road Maps and their Implementation and Evaluation of the Personal Characteristics of their Directors

Evaluation		Number of Institutes which Submitted			Code Numbers of Institutes which Submitted		
Description	Range	Plan	Implementation Report	Director's Personal Score	Plan	Implementation Report	Director's Personal Score
Excellent	41-50	3	1	0	1, 3, 7	1	-
Very Good	31-40	3	2	8	8, 15, 18	8, 18	1, 3, 5, 9, 13, 15, 16, 18
Good	21-30	8	3	2	4, 5, 9, 10, 11, 13, 14, 16	5, 9, 11	11, 12
Fair	11-20	3	0	0	6, 17, 19	0	-
Poor	0-10	2	0	0	2, 12	0	-
Total Submitted	-	19	6	10	-	-	-
Total Not Submitted	-	0	13	9	0	2, 3, 4, 6, 7, 10, 12, 13, 14, 15, 16, 17, 19	2, 4, 6, 7, 8, 10, 14, 17, 19
Total	-	19	19	19	19	19	19

It can be observed from the table 5, that all the participating directors have prepared and submitted their plan for change in their respective institutions. However, only six have submitted the implementation report of their action plan. It is a cause for concern that only about one third or 32 percent of the institutes were serious about reporting the implementation of the road map for change. This could be the case, because either no work on implementation was done or the directors did not monitor and record the implementation for submission. Either

way it shows a lack of desire for change. The plan submission was 100 percent because the directors were required to prepare it in the workshop itself at the academy. In order to improve the percentage of the implementation report one strategy could be to have a follow-up workshop for one or two days wherein the implementation report would be discussed. The directors then would be constrained to take the matter seriously because of the requirement to present and discuss the implementation report personally in the follow-up workshop.

From the Table 5, data have been reclassified in the Table 6 to show the results in qualitative terms with reference to personal characteristics evaluation, plan evaluation, and implementation report evaluation.

Table 6: Personal Characteristics of the Directors, Road Maps Evaluation and Implementation Evaluation of their Institutes

Sl. No.	Institute Code	Personal Evaluation	Plan Evaluation	Implementation Evaluation
1	1	VG	Ex	Ex
2	3	VG	Ex	-
3	18	VG	VG	VG
4	15	VG	VG	-
5	5	VG	G	G
6	9	VG	G	G
7	13	VG	G	-
8	16	VG	G	-
9	11	G	G	G
10	12	G	P	-
11	7	-	Ex	-
12	8	-	VG	VG
13	4	-	G	-
14	10	-	G	-
15	14	-	G	-
16	6	-	F	-
17	17	-	F	-
18	19	-	F	-
19	2	-	P	-

Note: Ex = Excellent; VG = Very Good; G = Good; F = Fair; P = Poor; - = Not Submitted.

It is observed that of the eight directors who showed very good personal scores, two have submitted excellent plans, two others very good plans and remaining four good plans. Four of these directors have also submitted their implementation plans and one of the implementation report was excellent, another very good, and two were good. These four implementation reports were a part of total six that were submitted. Of the two directors who showed good personal score one of them submitted a good plan and a good implementation report, while the other submitted a poor plan and did not submit an implementation report. Of the nine directors who did not submit their personal scores one had submitted an excellent plan, one a very good plan, three a good plan, three others a fair plan and one a poor plan. Of these directors, one who had submitted an excellent plan did not submit their implementation report while the director who had submitted a very good plan submitted a very good implementation report while the seven others who had submitted three good plans, three fair plans and one poor plan did not submit the implementation reports at all. In general, it may be said that when the directors are able, as indicated by scoring very good on their personal characteristics, planned well and also by and large executed the plans well. Those directors who have not submitted the scores of their personal characteristics also showed lesser efficiency in planning and did not submit their implementation reports at all.

Recommendations for Change Management in Research Organizations and Measures to Improve Basic Change Management Tactics in Them

Based on this researched study conducted on the nature and process of change management in research organizations, the following recommendations are made.

- Intensive training needs to be imparted on change management to the directors of research institutes as it is seen that less than half showed very good personal characteristics with reference to change management, while none could make it to the excellent category.
- Change management workshops are a good means of sensitizing and imitating the change management process and these should be periodically conducted.
- Those directors who do not apply themselves well to produce excellent, very good or good road maps for change, and prepare only fair or poor documents may be required to redo the effort.
- Regular and periodic follow-up visits may be made by the management experts to review and monitor the change implementation process.
- A follow-up workshop may be conducted for the presentation, discussion and experience sharing of the change implementation reports in order to ensure that effective implementation does take place, and also the experiences during this process are shared by the participants.

- Successful implementation of the road map for change must be rewarded and awarded while its non-implementation should draw flack and be noted for suitable action.
- In addition to self-assessment and self-reporting of the implementation of the road maps for change, there may be an evaluation by an out-side agency.
- A roster of mandatory participation in management workshops may be prepared for the directors of research institutes in order to ensure that the directors do periodically devote time to improve their management knowledge and skills and utilize them for improved management of their institutions.
- The directors may ensure the participation of their institute members in preparing their vision for the institutes and the road map for change. Such a contingency may be incorporated in the transience process.

Conclusion

In conclusion, it may be said that change management is a difficult and a slow process and requires a great concerted effort to ensure its successful implementation. The HRD efforts in change management in the shape of training followed by periodic workshops and regular monitoring by management consultants are essential to bring about effective change in the system. It may be appropriate to establish an all-India coordinated research project on management of research institutes with all the directors of research institutes as cooperating members, and to have an annual workplan quarterly workshops in small groups of 25 participants each. Such a project may be managed by a project coordinator in a rank higher than the directors of research institutes. ✘

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