Organizational Change Study : DIPR

Organization Effectiveness and Change : Project report

by

Ajay Kumar Dhamija (N-1)
Mandeep Singh Rekhi (N-27)
Raghav Raj Buddhiraja (N-39)

under the guidance of

Prof. Sunita Singh Sengupta

and

Dr. Kavita Singh

Faculty of Management Studies
University of Delhi, Delhi
March 2008
Defence Institute of Psychological research (DIPR) was struggling with high cost and
time overruns of its projects in the recent past, lack of understanding of Research process
and proper maintenance of documents. It was felt that some kind of holistic change is
needed to bring the declining level of user satisfaction up. Two initiatives, ISO 9001-
2000 (DIPR being a services organization) and Knowledge Management (DIPR being a
research organization) were started at organization level and division level respectively , in
sync with the McKinsey 7S Model. These initiatives led to efficient and effective utilization
of resources (including human capital) , and reduction in time and cost overruns of the
projects, thereby leading ultimately to higher degree of user satisfaction.
We would like to express our deep sense of gratitude to Prof Sunita Singh Sengupta and Dr. Kavita Singh for her invaluable help and guidance during the course of project. We are highly indebted to her for constantly encouraging us by giving her constructive critics on our work. We are grateful to her for having given us the support and confidence.

Authors
March 2008
Faculty of Management Studies, University of Delhi
Contents

1 Introduction ........................................... 1
   1.1 McKinsey 7S Model ...................................... 1
      1.1.1 The Seven Elements .................................. 1
      1.1.2 ISO 9000 ............................................... 4
      1.1.3 Knowledge management ................................. 5

2 Brief Description of the Organisation ................. 6

3 Situations or Factors that led to Change Initiatives ... 7
   3.1 ISO 9001:2001 ............................................ 7
   3.2 Knowledge Management ................................. 7

4 Specific Initiatives, steps and processes followed ..... 9
   4.1 ISO 9001-2000 ............................................. 9
   4.2 Knowledge Management ................................. 10

5 Barriers and Resistance ................................ 12
   5.1 Barriers and Resistance to ISO 9001-2000 ............... 12
   5.2 Overcoming the Barriers and Resistance ................. 12
   5.3 Barriers and Resistance to Knowledge Management ...... 13
   5.4 Overcoming the Barriers and Resistance ................. 13

6 Achievements of Change Effort .......................... 14
   6.1 Outcomes of Change Effort of ISO 9001-2000 ............. 14
   6.2 Indicators of the Outcomes ............................. 14
   6.3 Outcomes of Change Effort of Knowledge Management .... 14
   6.4 Indicators of the Outcomes ............................. 15

7 Conclusion ............................................... 16
List of Figures

1.1 7 elements of McKinsey 7S model ........................................... 2
4.1 Knowledge Management Model ............................................. 10
List of Tables

1.1 7 elements of McKinsey 7S model ................................. 2
Chapter 1

Introduction

While some models of organizational effectiveness go in and out of fashion, one that has persisted is the McKinsey 7S framework. Developed in the early 1980s by Tom Peters and Robert Waterman, two consultants working at the McKinsey & Company consulting firm, the basic premise of the model is that there are seven internal aspects of an organization that need to be aligned if it is to be successful.

1.1 McKinsey 7S Model

The 7S model can be used in a wide variety of situations where an alignment perspective is useful, for example to help you:

- Improve the performance of a company
- Examine the likely effects of future changes within a company
- Align departments and processes during a merger or acquisition
- Determine how best to implement a proposed strategy

The McKinsey 7S model can be applied to elements of a team or a project as well. The alignment issues apply, regardless of how you decide to define the scope of the areas you study.

1.1.1 The Seven Elements

The McKinsey 7S model involves seven interdependent factors which are categorized as either "hard" or "soft" elements:
Hard Elements | Soft Elements
--- | ---
Strategy | Shared Values
Structure | Skills
Systems | Style
Staff

Table 1.1: 7 elements of McKinsey 7S model

"Hard" elements are easier to define or identify and management can directly influence them: These are strategy statements; organization charts and reporting lines; and formal processes and IT systems. "Soft" elements, on the other hand, can be more difficult to describe, and are less tangible and more influenced by culture. However, these soft elements are as important as the hard elements if the organization is going to be successful.

The way the model is presented in Figure 1.1 depicts the interdependency of the elements and indicates how a change in one affects all the others.

![Figure 1.1: 7 elements of McKinsey 7S model](image)

Let's look at each of the elements specifically:

1. **Strategy:** the plan devised to maintain and build competitive advantage over the competition. It deals with essentially three questions where the organization is at this moment in time, where the organization wants to be in a particular length of time and how to get there (Ansoff, 1965).

2. **Structure:** the way the organization is structured and who reports to whom. The recent trend is increasingly towards a flat structure where the work is done in teams of specialists rather than fixed departments. The idea is to make the organisation more flexible and devolve the power by empowering the employees and eliminate the middle management (Boyle, 2007).
3. **Systems**: the daily activities and procedures that staff members engage in to get the job done. Increasingly, the organisations are simplifying and modernising their process by innovation and use of new technology to make the decision-making process quicker. Special emphasis is on the customers with the intention to make the processes that involve customers as user-friendly as possible (Lynch, 2005).

4. **Shared Values**: called "superordinate goals" when the model was first developed, these are the core values of the company that are evidenced in the corporate culture and the general work ethic. These values and common goals keep the employees working towards a common destination as a coherent team and are important to keep the team spirit alive. The organizations with weak values and common goals often find their employees following their own personal goals that may be different or even in conflict with those of the organization or their fellow colleagues (Martins & Terblanche, 2005).

5. **Style**: the style of leadership adopted, distinct culture and management style. There have been extensive efforts in the past couple of decades to change to culture to a more open, innovative and friendly environment with fewer hierarchies and smaller chain of command. Culture remains an important consideration in the implementation of any strategy in the organization (Martins & Terblanche, 2005).

6. **Staff**: the employees and their general capabilities. All leading organizations such as IBM, Microsoft, Cisco, etc put extraordinary emphasis on hiring the best staff, providing them with rigorous training and mentoring support, and pushing their staff to limits in achieving professional excellence, and this forms the basis of these organizations’ strategy and competitive advantage over their competitors. (Purcell & Boxal, 2003)

7. **Skills**: the actual skills and competencies of the employees working for the company.

Placing Shared Values in the middle of the model emphasizes that these values are central to the development of all the other critical elements. The company’s structure, strategy, systems, style, staff and skills all stem from why the organization was originally created, and what it stands for. The original vision of the company was formed from the values of the creators. As the values change, so do all the other elements. Effective organizations achieve a fit between these seven elements. If one element changes then this will affect all the others. For example, a change in HR-systems like internal career plans and management training will have an impact on organizational culture (management style) and thus will affect structures, processes, and finally characteristic competencies of the organization. In change processes, many organizations focus their efforts on the hard S’s, Strategy, Structure and Systems. They care less for the soft S’s,
Skills, Staff, Style and Shared Values. Peters and Waterman in 'In Search of Excellence' commented however, that most successful companies work hard at these soft S’s. The soft factors can make or break a successful change process, since new structures and strategies are difficult to build upon inappropriate cultures and values. These problems often come up in the dissatisfying results of spectacular mega-mergers. The lack of success and synergies in such mergers is often based in a clash of completely different cultures, values, and styles, which make it difficult to establish effective common systems and structures.

In line with the Mckinsey 7S model, Two initiatives initially are taken up for change

- ISO 9001-2000
- Knowledge Management

1.1.2 ISO 9000

is a family of standards for quality management systems. ISO 9000 is maintained by ISO, the International Organization for Standardization and is administered by accreditation and certification bodies. Some of the requirements in ISO 9001 (which is one of the standards in the ISO 9000 family) include

- a set of procedures which cover all key processes in the business;
- monitoring processes to ensure they are effective;
- keeping adequate records;
- checking output for defects, with appropriate corrective action where necessary;
- regularly reviewing individual processes and the quality system itself for effectiveness;
- facilitating continual improvement

ISO 9001:2000 is intended for use in any organization which designs, develops, manufactures, installs and/or services any product or provides any form of service. It provides a number of requirements which an organization needs to fulfill if it is to achieve customer satisfaction through consistent products and services which meet customer expectations. It includes a requirement for the continual (i.e. planned) improvement of the Quality Management System, for which ISO 9004:2000 provides many hints. Certification to an ISO 9000 standard does not guarantee the compliance (and therefore the quality) of end products and services; rather, it certifies that consistent business processes are being applied.
1.1.3 Knowledge management

refers to processes and practices through which organizations generate value from knowledge. Initially, knowledge management was primarily concerned with information technology - especially the use of intranets, groupware, and databases for storing, analyzing, and disseminating information. Subsequent developments in knowledge management have been concerned less with data and more with organizational learning - especially the transfer of best practices - and the management of intellectual property. The single most useful contribution of knowledge management is the recognition that different types of knowledge have very different characteristics.

A key distinction is between knowing how and knowing about. Know-how is primarily tacit in nature - it involves skills that are expressed through their performance (riding a bicycle, playing the piano). Knowing about is primarily explicit - it comprises facts, theories, and sets of instructions. The primary difference between tacit and explicit knowledge lies in their transferability. Explicit knowledge is revealed by its communication: it can be transferred across individuals, across space, and across time.

Both ISO 9001 and Knowledge Management are holistic initiatives and thus completely in sync with the McKinsey 7S model.
Chapter 2

Brief Description of the Organisation

Defence Institute of Psychological Research (DIPR) is a premier research institute of Defence Research & Development Organization (DRDO) providing dedicated service to the nation in general and Indian Armed Forced in particular.

DIPR takes on new areas of research related to morale, ideological convictions, motivation, morale, attitude, anthropometric factors, civil-military relations, human engineering, personality and intelligence tests etc.

DIPR has standardized lot of bilingual intelligence and personality test batteries. These tests are monitored regularly and validated constantly with periodic modifications and revisions. The Institute has constant interaction with HQs of Armed Forces and all the Selection Centers spread all over India.
Chapter 3

Situations or Factors that led to Change Initiatives

3.1 ISO 9001:2001

Following are the specific factors for change initiatives of ISO 9001-2000,

- **External Factors**
  - Low Overall User Satisfaction
  - Deadline Overrun for handing over the products
  - Low Quality Products
  - Mandatory Requirement from GOI to restructure and standardise

- **Internal Factors**
  - Functional Difficulties in the processes
  - Delay in deadlines of the projects
  - Lack of Clarity of the Research Process
  - Lack of Clarity of proper Documentation and Files movement
  - Irrationality in the costing of various projects
  - Improper Documentation
  - Poor Tracing of Records
  - Inefficient ultimation of Human Resources

3.2 Knowledge Management

Following are the specific factors for change initiatives of Knowledge Management,
• External Factors
  – Low Overall User Satisfaction
  – Deadline Overrun for handing over the products
  – High Costing of Projects
  – Low Quality Products

• Internal Factors
  – Lack of understanding of recognizing the generated knowledge
  – Lack of understanding of value of generated knowledge
  – Lack of proper information systems for storage and retrieval of knowledge
  – Poor knowledge Integration
  – Poor Knowledge Conversion
  – Inefficient use of knowledge generated especially tacit knowledge
Chapter 4

Specific Initiatives, steps and processes followed

4.1 ISO 9001-2000

Following are the specific steps for change initiative for ISO 9001-2000 (DIPR, 2008) certification

- **Interaction with Organizations already having ISO 9001-2000**: A team of internal Management representatives (MR) was formed to coordinate all the actions involved. This interaction gave initial awareness to MR about the processes behind the standardization.

- **Hiring of Consultant**: After much deliberations, consultants were hired from Institute of Defence Scientists and Technologists (IDST)

- **Awareness Programmes**: Four awareness programmes were started in order to make DIPR personnel aware about the whole gamut of issues.

- **Interaction with Divisional Heads**: MR interacted with Divisional Heads for respective specific nature of jobs, steps, activities involved in various divisions.

- **Quality Procedures**: Quality Procedures at divisional levels were prepared jointly by the MR and the Divisional Heads and finally they were modified and approved by the Consultants.

- **Quality Manual**: A comprehensive Quality Manual was prepared for the organization, which delineated the explanation of ISO clauses, Quality Policy, Objectives, Processes, Evaluation Procedures, User Feedbacks, Continuous improvement Methods, resource management etc.

- **Management Review Meeting**: Finally meeting with the top management, Various points of Quality Management System (QMS) were discussed and resolved.
• **Implementation**: QMS was executed, various points which were raised in between were discussed with Divisional Heads, MR and the Consultants and resolved as per the standards.

• **Internal Auditors Course**: 5 people were sent for Internal Auditors Course, who can coordinate the actions within the organization.

• **Ist Internal Audit**: Non-conformances (NC) were found against various clauses of ISO and the copy of NC were sent to the divisions for compliance and the cut-off date was given to this effect.

• **IIInd Internal Audit**: Similarly, remaining NC were sorted out in the second internal audit.

• **Approaching the certification agency, Standardization, Testing and Quality Certification (STQC)**: Certification process was started. In preaudit the documents, Quality Manuals were sent, NC were raised by the agency and the observations were incorporated. Third party audit was conducted and again NC raised were reconciled. Finally the certificate was awarded.

4.2 Knowledge Management

The following model was adopted for Knowledge Management

![Figure 4.1: Knowledge Management Model](image)

To start with, Knowledge Management approach (Grant, 2008) was started in the Human Engineering Division. It is slated for extension to the whole organization. Following are the specific steps for change initiative for knowledge Management

• **Knowledge Identification**: DIPR started assembling and systematizing information on their knowledge assets. These include assessments and reviews of patent
portfolios and providing personnel data that allowed each employee to identify the skills and experience of other employees in the organization. A key aspect of such knowledge identification is the recognition of knowledge that is being generated within the organization so that it can subsequently be stored for future use. Such knowledge identification is especially important in project-based organizations like DIPR to ensure that knowledge developed in one project is not lost to the organization. Finally a system was established, whereby learning from each project was identified, written up, and submitted to a common database.

- **Knowledge measurement**: This involved measuring and valuing the organization’s stock of knowledge and its utilization.

- **Knowledge storage and organization**: A integrated database was created for storing information, for organizing information, and for accessing and communicating information, to facilitate the transfer of and access to knowledge.

- **Knowledge sharing and replication**: This involved the transfer of knowledge from one part of the organization (or from one person) to be replicated in another part (or by another individual). A central function of IT-based knowledge management systems was to facilitate such transfer. However, tacit knowledge is not amenable to codification within an IT system. Replicating capabilities posed an even greater challenge.

- **Knowledge integration**: This posed one of the greatest challenges to the organization. Producing most goods and services requires bringing together the knowledge of multiple individuals. The essential task was to integrate individual knowledge in an effective and efficient manner and the key was to integrate the knowledge of many technical experts and across a range of functions.

- **Knowledge conversion**: Conversion between tacit and explicit and between individual and organizational knowledge was central to the organization’s building of its knowledge base. The conversion of knowledge between the different knowledge types (the "epistemological dimension") and knowledge levels (the "ontological dimension") forms a knowledge spiral in which the stock of knowledge broadens and deepens. An attempt was made to internalize explicit knowledge into tacit knowledge in the form of intuition, know-how, and routines, and to externalize tacit knowledge into explicit knowledge through articulation and codification.
Chapter 5

Barriers and Resistance

5.1 Barriers and Resistance to ISO 9001-2000

- **Apprehension of Need**: People really apprehended and questioned the very need of putting ISO in place.

- **Apprehension of Rigidity**: People felt that the said system would bring rigidities in to the system

- **Psychological barriers**: People feared that the team was coming for fault finding. They also questioned how can Quality Manuals be applied to the research process

- **Incapability barriers**: People feared that the said system would expose many of those who were not maintaining records in a proper way.

5.2 Overcoming the Barriers and Resistance

- **More and More interaction**: to educate people that the effectiveness and efficiency would increase by this system

- **Open discussion for the reservations**:

- **Continuous management review meeting**: resistance were discussed openly in MRM and resolved.

- **Assuaging**: It was properly explained that the aim is not fault finding, but the fact finding
5.3 Barriers and Resistance to Knowledge Management

- **People instinctively try to withhold knowledge**: People withhold knowledge sharing in order for them not to lose the source of power and influence.

- **Resistance to knowledge capture**: because of effort required, fear of loss of privacy, fear of litigation, fear of punitive action.

- **Resistance to knowledge reuse**: because of effort required and low likelihood of finding relevant knowledge.

- **Technical Barriers**: These include how to capture, store and reuse knowledge, to ensure relevance and intelligibility of retrieved knowledge.

- **Fear of escalating information overload**:

5.4 Overcoming the Barriers and Resistance

- **Building teams and infrastructure**:

- **Keeping the employees informed and involved**:

- **Making KM an intrinsic part of the firm’s work rather than a discrete project**:

- **Linking KM with vision at operational and strategic levels**:

- **Maintaining accuracy and reliability of know-how**:

- **Utilizing the Leadership initiative and support**:

- **Creating easy to use knowledge maps**:

- **Making IT resources adequately available**:
Chapter 6

Achievements of Change Effort

6.1 Outcomes of Change Effort of ISO 9001-2000

- Better Tracing of Records and documents:
- Research Process Clarity:
- Quality Procedures Clarity: Roles, responsibilities and the activities of personnel, divisions have become well defined
- Better understanding of user requirements:
- Better feedback from the user:
- Continuous Improvement Process is in place:

6.2 Indicators of the Outcomes

- Reduced Project overrun times:
- Better understanding of the costing of the projects:
- Efficient ultimation of Human Resources:
- Expedited Tracing of Records:
- Improvement in User satisfaction regarding Quality and Timely handing over the product:

6.3 Outcomes of Change Effort of Knowledge Management

- Better understanding the difference of Data and Knowledge:
• Better Storage of Knowledge in the Organization:
• Better Knowledge Exchange:
• Better Knowledge Conversion:
• Commissioning of Knowledge Base of the organization:

6.4 Indicators of the Outcomes
• Reducing cost, time and risk of Projects by leveraging existing assets:
• Improved Decision Making:
• Improved Strategic Planning:
• Faster Development of New Technical Approaches:
• Faster more Robust Problem Solving:
• Reduced Cost of Employee Training:
• Increased Versatility of the Workforce:
• Organization has become more of learning organization:
Chapter 7

Conclusion

McKinsey 7S Model, when applied to DIPR helped to improve the performance, examine the likely effects of future changes within the organization, align departments and processes and determine how best to implement a proposed strategy. In sync with the holistic approach of McKinsey 7S Model, Two change initiatives were taken for DIPR namely ISO 9001-2000 (because of the vary nature of DIPR being services organization) and the Knowledge Management (because of very nature of DIPR being research organization, whose major focus rests on knowledge). The initiatives were highly successful in terms of making the efficient and effective utilization of resources (including human capital), and reduction in time overrun and costs of the projects thereby leading ultimately to higher degree of user satisfaction.
References


