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Neeti Jain

Jimmy Kansal

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1. Neeti Jain*

Scientist, Defence Geoinformatics research establishment (DGRE), Plot no 01, Him Parisar, Sector 37, Chandigarh
email id : neetijain1@rediffmail.com

2. Jimmy Kansal

Scientist, Defence Geoinformatics research establishment (DGRE), Plot no 01, Him Parisar, Sector 37, Chandigarh

Key Words:Organization Behavior (OB), Organizational Culture (OC), Organization Development (OD), Organizational Effectiveness (OE), Organization Change, Mckinsey's7s model, R&D Organization, Knowledgebased Organization

Abstract:

Research studies on Organizational Development (OD) commenced a few decades ago to enhance an organization's effectiveness (OE) through the alignment of its various functions such as strategy, structure, people, rewards and management.

Organizational devolvement is not an independent factor of growth, it includes complete process of organizational change aimed at organizational excellence. In today's scenario not only industries are working hard to achieve organizational effectiveness but Knowledge Based Organizations are also striving to attain OE through the process of OD. However, it is

still a challenge to measure the effectiveness of Knowledge Based Organization (KBO) compared to any production units or industries. McKinsey 7S model is considered as one of the best model to depict how organizational effectiveness (OE) can be achieved through interaction of its 7 key elements. This study is an attempt to assess the organizational environment and resources management of an ISO 9001:2015 certified KBO using McKinsey 7S model. Data was collected by survey method and assessed to evaluate the status of various identified markers under enablers of developed instrument based on McKinsey 7S model. After data evaluation, the areas had been identified where the organization is effective and where the improvement is required to attain OD through OE markers. Results shows that organization has many strong areas out of 66 contributors under the seven categories of standard McKinsey's 7S model. A need has been felt to improve the

OE in terms of flexible working timings, performance analysis system and motivational strategies.

Key Words: Organization Behavior (OB), Organizational Culture (OC), Organization Development (OD), Organizational Effectiveness (OE), Organization Change, McKinsey's 7s model, R&D Organization, Knowledge based Organization

1.0 Introduction: An organization is the place where people work together and contribute to achieve a common goal. It is considered as a complex system as integration of all the contributors towards a common goal is to be realized. Performing organizations manage their HR in a systematic and coherent manner, whereas some of the organizations faces various issues and challenges related with performance, resources, people, facilities, infrastructure, targets, technology, competency etc. No organization can survive without strong values, ethics,

culture, communication, involvement at each level, recognition of good work and cross channel interaction. All these influences employees work behavior and overall indicates organizational behavior. Organization Culture and Organizational Behavior (OB) plays large role in organizational success, though both are separate but closely related terms. Organizational culture can be defined as an interactive aggregate of common characteristics that influence a working team's response to its environment and shared values that shape the organization. It is treated as unitary concept and somewhere lacks analytical interpretations (Pettigrew, 1979; Hofstede, 1980). Organizational culture affects at individual level whereas, organizational behavior is a human behavior study in an organizational setup and mainly emphasizes on organization at a particular point of time as closed systems, it also reflects the scholar

side of the scholar-practitioner continuum, OB also affects the motivational level of employees (Moorehead, 1992; Griffin & Moorehead, 2014). At the beginning of 19th Century Organizational Development (OD) was introduced as human relations studies, during which psychologists perceived that behavior and motivation were influenced by organizational structure and processes. Both OB and OC along with organizational strategies gives a way to Organizational Development. Although, OD is an objective based methodology used to initiate a change of systems in an entity and stresses the staff members' involvement in improving organizational effectiveness, it gives a platform to plan and implement change in order to promote organizational effectiveness (Mulili & Wong, 2011). Various authors define OD, as per Beckhard (1969) OD is 'An effort planned organization wide and managed from the top, to increase organizational effectiveness

and health through planned interventions in the organization processes using behavioral science knowledge'. In 2005 Warrick defined OD as 'Planned and collaborative process for understanding, developing and changing organizations to improve their health, effectiveness and self renewing capabilities'. The Organizational climate, organizational culture and organizational strategies are considered as the three key elements of organizational development.

Organization Development (OD) is an objective based approach to system that is focused on a change within an organization and can be described in a number of ways. One of the most well-known facts is that the organizational effectiveness is achieved by the system-wide application and exchanging knowledge of behavior science in line with development plan, strategies reinforcement, structures and the processes (Cummings, & Worley, 2005). Organization Development can also be described in terms of its

approach to change the organization, which is centered on the change in behavior and robust research methodology. One of the definitions of OD emphasizes on a systematic process for applying principles and practices of behavior science in organizations to increase organizational effectiveness along with individual effectiveness (French & Bell, 1999). Rukert et al., 1985 described how an organization structure greatly affect the performance and why structured organizations only progressed well.

One element is common in all the definitions, that to create a balance between identifying distinctive ways to maximize the value of the organizational experience for the individual and finding distinctive ways to maximize the interaction for improvement of the organization's performance. The factors on which an organization's success depends are its ability to be responsive and innovative in increasingly complex environ-

ments. Appropriate application of the skill-set of organization development tools enhances the organization's ability to meet these kinds of challenges. The main difference between Organizational Behavior and Organizational Development is that OB emphasizes mainly on research than application and OD focuses on the applied side of the scholar-practitioner continuum. It is not easy to evaluate the impact of OD interventions on improvement in the effectiveness of the organizations. OD contributes in organizational effectiveness enhancement by taking one or a combination of intervention strategies, human process based strategies, techn-
no-structural strategies, socio-technical strategies and organizational transformation strategies (Mulili & Wong, 2011, Asumeng & Larbi., 2015). Now a days, customers are more quality focused then the cost of product or services, hence quality is considered as key element for strategic development and success of any organizations. The quali-

ty approach began at Japan and spread all over the world, it created entirely new way of thinking about organization and its working. Quality gained name and fame with many names viz Six Sigma, Leadership through Quality, perfect design quality for different organizations, but more referred to as Total Quality Management (TQM). TQM not only focuses on quality output but it also emphasis on creating an organizational culture, promote team work, extensive participation from individual, generation of authentic data and continuous learning. It is continuous development process with learning, thus TQM is highly similar with OD approaches and values (Badiger & Laxman, 2013). Certification for TQM implementations is not available, hence organizations implement ISO standards to ensure the quality in their products or processes. ISO 9001 is widely accepted quality standard started in 1987 and since then it provides the criteria for a Quality Management System (QMS)

with focus on quality product and the PDCA (Plan-Do-Check-Act) cycle to achieve targeted output along with customer satisfaction. ISO 9001 standards get reviewed time to time to ease the documentation and to incorporate alternatives with focus on achieving quality. ISO 9001:2015 is a latest series of ISO standards and is aimed at benefiting users by inducing risk-based documentation, minimal documentation along with enforcement of new approaches to get the quality products/ service with minimal system failures. This new series is in-line with modern business and latest quality concepts (Gluck, 2015). Latest version of ISO emphasizes the need of organizational context, stakeholders that influence the organization, business and process approach with more flexibility and less emphasis to documentation. Many studies have been conducted to evaluate the worthiness of ISO certification in terms of performance and results, in both the cases results are not unanimous and

mostly found that performance related to ISO 9001 varies with type of organizations, size of organization, its environment etc. (Astrini, 2018; Molina-Azorín, Claver-Cortés, López-Gamero, & Tarí, 2009;). Even, in overall organizational development TQM is also closely related to organizational change and organizational culture and its principals, organizational goals are incorporated into the major excellence programs and awards (Fonseca L., 2021; Aquino et al., 2017 Boulter et al., 2013; Asif et al., 2009;).

Organizational change and development are necessary to hold the top position in market and to compete with other market players. Many time changes are required to be done to overcome internal or external pressure. For implementation of change there are many factors which are crucial viz. competencies of the employees along with efficient and effective organizational output, environment of the organization, other available resources etc. Organizational

Development is a vital ingredient of any R&D organization that contains many factors, which are needed for the development of organizations (Duncan, 1972). R&D organizations are Knowledge based organizations where identification of weak areas and implementation of change are difficult due to varying requirement of resources and huge investment. In KBO, the work processes influence organizational knowledge, technology infrastructure influences knowledge capture, retention and transfer. In R&D organizations, it is must for all the employees to act as learning agent due to challenging career opportunities in the high technological areas with their career advancements and professional growth. In KBOs, knowledge remains as one of the most strategic factors associated with a firm's capability to excel and get competitive advantages. To initiate change in any organization, it is must that leaders should clearly see the gap areas that are

required to be filled to become leading organization (Marz et al., 2006; Asumeng & Osae-Larbi, 2015; Burke, 2018).

For implementation of changes, firstly one should identify the areas where changes are required than make sure that identified changes should be sustained, objective oriented, employee friendly and cost effective. All OD interventions led to gain in any form, like knowledge acquisition, gaining of insight, habit or skill learning etc (Mulili & Wong., 2011). There are five models of organizational development (OD) assessment, by using them organizations can access their status on various parameters and after identification of weak areas, improvement policies may be implemented to enhance organization effectiveness. These models are Burke-Litwin Model, McKinsey 7S Model, The Galbraith's Star Model, Weisbord Six Box Model and Nadler-Tushman's Congruence Model. All these OD intervention strategies leads to some

form of organizational learning but not surely in creation of learning organization (Asumeng & Osae larbi., 2015).

In this study McKinsey's 7S model is used to assess the organizational effectiveness as it is considered as a potential fit for an R&D organization. This model can be used to understand how the different elements and changes like new processes, change in leadership, change in system and so on are interrelated. It also helps to make sure that the impact of changes made in any area of the organization is taken into consideration. This model was developed in the early 1980's by consultants for the consulting firm McKinsey and the Company with the concept of change management and corporate development strategy (Peter TJ & Waterman RH., 2007). According to literature and past studies in Research & Development organizations, McKinsey's 7S model is much effective than other Organizational Development models

(Garbrah & Binfor., 2013; Larry Dwyer & Robert Mellor, 1993). McKinsey's 7S model is a tool which analyzes the organizational design of a firm by considering 7 key internal elements and identifies their effective alignment to achieve the organizational objectives. McKinsey's 7S model is divided into two parts - Hard elements (strategy, business structure, system) and Soft elements (management style, shared values/ corporate culture, skills, staff/ capabilities). Hard elements are easily defined/ identified, however on the other hand, soft elements are less tangible and difficult to describe (Table 1). Although, model elements also mutually get affected during the restructuring, soft elements get affected by corporate culture and rigid elements get altered with management culture (Demir & Kocaoglu., 2019).

This model has been widely followed by academics and practitioners and is one of the most popular tools for strategic planning (**Ovidijus Jurevicius**). Apart from the traditional mass production tangibles of capital, equipment and infrastructure, it also emphasizes on Human Resources (Soft S) to achieve higher organizational performance. The framework is commonly used for the following:

- a. To expedite organizational change
- b. To help execute a new strategy
- c. To identify the changes
- d. To expedite the organizational mergers, if required

This model is easy to understand but harder to implement in an organization due to the common misunderstanding as to what well-aligned elements should be like. McKinsey's 7S model should be reviewed continuously to make any organisation lead in its area (Waterman et al., 1980, Paul et al., 2009).

2.0 Methodology:

For this study, descriptive survey research method is used to gather the data and test our hypothesis. The research population included scientists and technical staff of a government sector R&D organization. Most Scientists are project leaders working on projects in field of cryospheric sciences with the aim to develop technologies to mitigate mountain geo-hazards with a focus on avalanches and landslides. Technologists are supporting staff that helps scientists in execution of their project objectives. Both scientists and technical staff are well qualified and have relevant expertise in their technical domains. The number of the population for collection of data was 96 (45 scientists and 51 technical staff). Out of 45 Scientists, 19 were senior (experience more than 20 years); 15 were middle level (experience more than 10 yrs) and 12 were young scientists (experience less than 10 yrs). Out of 51 technical staff, 21 were

senior (experience more than 20 years); 17 were middle level (experience more than 10 yrs) 13 were young staff (experience less than 10 yrs).

A questionnaire was designed as per the mandate and functioning of the organization and designed questionnaire was circulated to 105 scientists and technologists to conduct this research. 91% responses were received. Cronbach's Alpha test was used to check the reliability of the designed instrument and its data (Reynaldo & santos., 1999). Face validity method was used to validate the designed questionnaire. One way ANOVA test was used as statistical tool to analyze the data using 'Prism' statistical software. Inter group one way ANOVA test indicated that there is no significant variation in the data collected from all the groups. Hence, there is no bias in response from respondents of different categories.

In this study each factor under Mckensy's 7S models leads to one hypothesis, as follows:

- I. Structure: R&D organizational factor of structure is unfavorable based on McKinsey's 7S model
- II. System: R&D organizational factor of system is unfavorable based on McKinsey's 7S model
- III. Strategy: R&D organizational factor of strategy is unfavorable based on McKinsey's 7S model
- IV. Skills: R&D organizational factor of skills is unfavorable based on McKinsey's 7S model
- V. Style; R&D organizational factor of style is unfavorable based on McKinsey's 7S model
- VI. Shared Values: R&D organizational factor of Shared Values is unfavorable based on McKinsey's 7S model

VII. Staff: R&D organizational factor of staff is unfavorable based on McKinsey's 7S model

2.0 Results & Discussion

Table 2 shows the developed instrument and its contributors, that have been identified after interaction with the top management and middle management of the R&D institute. The developed instrument contains all the seven defined categories of the Mckinesy 7S model. All the identified contributors are having relevance with organization's goal and directly influence the output of the organization. This organization is KBO working as per govt guidelines; hence the selected contributors are in line with rules and policy of organization. The contributors under various categories are well defined and selected after discussions with senior scientists. Further, number of contributors in each category is different e.g. under structure there were 11 contributors identified w.r.t the selected

organization. Validity and reliability are the fundamental elements in the evaluation of a measurement instrument. Instruments may be of anything like, conventional knowledge, skill or attitude tests, clinical simulations or survey questionnaires (Tavakol & Dennick, 2011). This developed instrument is validated by group of senior scientists for its relevance with the aim. Table 3 shows all the comprehensive number of contributors in each category and Cronbach alpha value of each category. Organizational factors have a Cronbach alpha value greater than 0.700 (<1.0), so the developed instrument is reliable to be used for research.

Organizational structure is the way in which responsibilities and powers are distributed, it shows the work procedures and work distribution amongst the staff (Walton., 1985). Table 4 shows the significance of structure factor, for this the hypothesis used was "R&D organizational factor of structure

is unfavorable based on McKinsey's 7S model". The results indicate that only one attribute which is "We are flexible and react quickly to opportunities", has significant difference as its p-value is less than 0.05 for 95% confidence interval depicting need of improvement in this particular area of the organization. Organizational development is severely affected due to old values and lack of upgradation of skill of employees. Management needs to refresh the old values, skills and update them with new requirements, adopt new ideas to contribute to organization efficiency, effectiveness and to finally enhance the performance. To increase the confidence level of employees, management can draw a job rotation policy to make employees familiar with all types of organizational tasks.

System is necessary to support the implementation of strategies and structure in an organization properly. In Table 5 significance of the organizational factor of

system is analyzed, for this the hypothesis used was "R&D organizational factor of system is unfavorable based on McKinsey's 7S model", results indicate that no attribute has p-value less than 0.05 for 95% confidence interval, so the hypothesis is wrong proving that the organizational factor of system is favorable based on McKinsey's 7S model. This can be interpreted as that good system support all organizational affair fairly and these type of organizations have their own SOPs to make system run effectively and efficiently. This data indicates that organization is mature and is made up of corporate hierarchy, it has strong QMS where all the procedures are fixed and properly laid down, there is clear work flow and SOPs within organization. Although the effect of QMS on organization development is difficult to note particularly on soft areas like behavioral or cultural aspects rather than on hard aspects such as tool techniques and system (Prajogo & Mc Dermott, 2005).

Table 6 shows significance of the organizational factor of strategy, for this the hypothesis used was “R&D organizational factor of strategy is unfavorable based on McKinsey’s 7S model”, from the table it can be analyzed that only one attribute which is “Extent to which data and information are available to measure, analyses and review the Organization's performance”, is significant as its p-value is less than 0.05 at 95% confidence internal depicting need of improvement in this particular area of the organization. The attributes of strategy contributes to make organization competitive in market, frequent interaction with users, external visits to make employees aware about the threats and opportunities in field globally are recommended to plan the growth of organization. Particularly in current scenario there is requirement of wide range strategic plan, as Indian defence R&D is under pressure to replace traditional R&D

activities with gain an edge for subsequent production and induction in Army. Khoirunnisa (2019) reported application of strategy factor and requirement of collaboration with academia, cadets and other related parties to achieve organizational goal. There are many contributors of strategy, organizations with broad and bold strategies get connected with world, work seamlessly, accelerate chaotically, staff get empowered to innovate and develop flawless solutions to critical challenges (Luman et al., 2023)

Data showed that organization is having good data bank now focus is required to make it available at least within organizations to the scientists and technologists for their application. To analyze the strategic factor of OD, time-based performance analysis is required at each point. Hence, frequent management review meetings need to be conducted to discuss the achievements against various

factors under organization's performance and scope of improvements in existing system. Other attributes are not significantly differing as it shows that organization has deeply adopted the ISO 9001: 2015 requirements and suggestions.

Skill comprises the talents and capabilities of the staff that determines the types of achievements. Table 7 shows significance of the organizational factor of skills, for this the hypothesis used was “R&D organizational factor of skills is unfavorable based on McKinsey's 7S model”, from the table it can be analyzed that all the attributes have p-value more than 0.05 at 95% confidence interval, so the hypothesis is wrong proving that the organizational factor of skills is favorable based on McKinsey's 7S model. Since, the organization is knowledge-based organization, so it relies on the ability of individual to transform their knowledge and skill to services. In such types of organizations which are knowledge

driven, learning and continual addition of knowledge is essential to enhance the adoptability towards change, to anticipate existing and future needs, exploit resources to utilize the new opportunities (Prince et al., 2013; Hamilton & Philbin., 2020). Knowledge or skills are organization's intellectual capital and for growth it is essential that individual member share and make this knowledge make available. As both the knowledge and skills requirements are dynamic in nature, hence, skills and knowledge should be upgraded and measured in regular intervals, as based on skill inventory organization decides the requirement of changes in order to achieve the organizational goals set forth in its strategy (Van Den Hogg B & Huysman., 2009). As organization is ISO certified the ISO 9001: 2015 standards also emphasized the need of training and development programmes to enhance the competencies of the employees for given task.

In today's dynamic and competitive environment where customers' choice changes dynamically, hence businesses required to adopt the changes rapidly to remain safe in market. Only successful leaders create an environment that motivates employees toward organizational goal and their different style speaks about which types of transformation required to create positive environment. Table 8 shows significance of the organizational factor of style, for this the hypothesis used was "R&D organizational factor of style is unfavorable based on McKinsey's 7S model". Results indicate that all the attributes are having p-value more than 0.05 at 95% confidence interval, so the hypothesis is wrong proving that the organizational factor of style is favorable based on McKinsey's 7S model. The structure and system of organization determines by the style of their leaders, as leaders only agrees on the staff with required skills to realize the strategy of

organization (Suwanda & Nugroho., 2022). Organizations reflects the broader culture, but it is clear that culture developed by their own employees, organizational culture is a result of the personal biases of their founders and leaders, and their own histories (Schein., 1984).

Combination of emotional managerial intelligence and transformational leadership are the strong predictors of organizational success (Fareed et al., 2022). In this study data indicates that, the organizational leadership is strong and able to draw the strategies as per market requirement, as the major instruction for organizational leaders is to develop a strong and highly integrated sustainability focused organization. This sustainability concept is to be promoted by the leaders and they should further disseminate it at each level of the organization, so that all can contribute towards organizational development (Linnenlueche & Griffiths., 2010).

The elaboration of other hard and soft factor of model derives success in the organizational strategy, which ultimately represents the shared value. Table 9 shows significance of the organizational factor of shared values, for this the hypothesis used was “R&D organizational factor of shared values is unfavorable based on McKinsey’s 7S model”, from the table it can be analyzed that only one attribute which is “We understand and motivate the people towards the organization's goals and objectives”, is significant as its p-value is less than 0.05 at 95% confidence internal depicting need of improvement in this particular area of the organization. Organization needs to focus on motivating the employees by different ways, this could be by giving awards, rewards or other perks to motivate employees. Here in this point role of managers are important, as they are the link between leaders and workers. Managers required to understand the organizational needs and further educate the

people under him, he should know the cause and effect of each decision and activities within organization (Griffin & Moorehead, 2014)

In Table 10 significance of the organizational factor of staff is analyzed, for this the hypothesis used was “R&D organizational factor of staff is unfavorable based on McKinsey’s 7S model”, from the table it can be analyzed that only one attribute which is “The existing Performance appraisal system of your organization is relevant in today's context”, is significant as its p-value is less than 0.05 at 95% confidence internal depicting need of improvement in this particular area of the organization. Being an Govt organization, it has fixed performance evaluation system and with time moving for online performance. Online performance evaluation will be more fair and reliable and would help in gaining confidence of employees in evaluation system.

Overall results indicate that the structure of the R&D organization based on McKinsey's 7S model is favorable but there is a need for improvement in some areas of the internal environment of the organization. Even the improvements need change and acceptability towards change, employees have different acceptability to change initiative, as they have different individual experiences, motivation status, socio-demographic characteristics, knowledge, values and different behavior models (Wang & Kebede., 2020). Shiri et al (2015) reported application of Mckinsey's 7s model to 9s (7+ self evaluation & supportive factor) model in organizational readiness factor for implementing ERP based on organizational dexterity.

This study was conducted in a government R&D organization which has a proper structure and communication channel which makes less scope of flexibility of the organization in grabbing opportunities.

Paired T-test was used to check for the significance of the attributes of all factors of McKinsey's 7S model. The extent to which data and information are available to measure, analyze and review the performance of the organization is limited because it is the only organization working in the particular field across the country so it does not have a benchmark or prior data which can be used for it.

From this analysis it is clear that the customers are satisfied but there is a lack of few motivational factors within the employees of the organization. The organization includes scientists of different background with vast experience, the structure the organization is as such that there is very less space for communication, any sort of government or cooperate organization both requires internal communication between those employees apart from work-related communication to create a healthy environment within the

organization. Now a days, organizational theories focused mostly on the interpersonal relations and the problem solving based on interactions. To achieve desired results, organizations need to ensure that customers and employees are satisfied, as posited by Freeman stakeholder theory (Freeman, R. E. (1984).

The organization is run by the government and has a multilevel appraisal process; there is no scope of 360° performance appraisal system or 180° performance appraisal system. This organization is the only R&D institute of its kind which works in the field of cryospheric sciences and is one of the best around the world. Although to initiation change up to acceptability is not easy and it has to cross many hurdles from identification of changes to psychology of its employees. The changes should be implemented based on Kurt Lewin's approach with appropriate time frame (Cummings et al., 2016). From the analysis,

it can clearly be understood that apart from minor upgradation in the various process, the organization is already working at it's best. To compete with the international level, cooperate organizations, these minor changes should be implemented. The data generated and analyzed will help in organizational development through a variety of means, such as training employees, improving communication, sharing data and finally employees and user satisfaction.

Conclusion

The research concluded that though the employees believe that the performance of the organization is good but there is definitely a scope of improvement. It has been observed that there is lack of flexibility in employees and they are not able to react to opportunities quickly. This could be due to work profile of employees and doing the same job for years and this can be overcome by rotation of job based on their

competences. The extent to which data and information are available to measure, analyses and review the Organization's performance is low as compared to the expectations. The employees' contributions are not properly integrated with overall organizational objectives and the peers need to review and motivate them towards attaining the organization's goals and objectives. Organization should delve upon the methodology for improving its appraisal process with a focus on transparency and quantitative markers.

The present study will provide guidance in taking policy decision for HR development, quality implementation and overall Organizational performance.

Research Limitation: This study is conducted in a government organization with limited samples. No extensive work is carried out in this field, hence availability of findings are limited.

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Table 1- Elements of mckinsey's 7s model

Hard “S” of McKinsey’s 7S model	Soft “S” of McKinsey’s 7S model
Structure	Skills
System	Style
Strategy	Shared values
	Staff

Table 2- questionnaire for research based on mckinsey's 7s model

	STRUCTURE	SYSTEM
1	My parent organization is quite rigid and has very limited ability to change	User satisfaction is measured periodically and act on the results
2	Responsibility and accountability for managing key activities are clearly established	We understand the interdependencies between the processes of the system
3	Data and information available in the laboratory are sufficiently accurate and reliable	Employees making decisions and taking action based on factual analysis, balanced with experience and intuition
4	User/customer needs and expectations are communicated throughout the Organization	I understand clearly the needs and expectations of our User/customers
5	We minimize the miscommunication between levels of an organization	Continual improvement of products, processes, systems and objective for every individual are made in the organization
6	My opinion is restricted in decision making and problem-solving	Brainstorming is organized where people can openly discuss problems and issues
7	The processes are integrated and	Joint development and improvement

	alignment that will best achieve the desired results	activities are established
8	We understand organizational capabilities and establishing resources constraints prior to action	We research and understand user need and expectations
9	We are flexible and react quickly to opportunities	The employees seeking opportunities are identified to enhance their competence, knowledge and experience
10	We focus on factors such as resources, method, and materials - that will improve key activities of the organization	The employees are evaluated on the benchmarking against their personal goals and objectives
11	Project teams lack with regards to consistency in managing the change	
	STRATEGY	SKILLS
1	Our organization has a sound planning process including strategic plan, tactical plans and short term goals	Extent to which system supports continuous learning and development of the workforce
2	There are logical reasons for change which are visible to all and the goals are	We are in a dynamic environment that forces us to keep abreast in the cutting edge

	transparent	technologies
3	Extent to which the working conditions and compensations are able to attract new productive workforce and retain the existing employees	Freedom is given to the workforce to share ideas and taking decisions (to their limits) for overall improvement in the quality
4	The future actions are guided by the findings of performance measurement and review	Quality of knowledge database that is required to enhance the indigenous capabilities
5	New projects are well planned and are in line with the User's expectations	My organization is arranging targeted training for highly technical work
6	My boss keeps all of us up-to-date about what is happening	Competence of technicians, support staff, etc. to achieve high performance
7	There is no system to recognize and acknowledge improvements	I have a clear vision of where are we going and my goals are aligned to attain the vision of my department
8	Extent to which data and information are available to measure, analyses and review the Organization's performance	Performance accountability of the workforce
9	Individuals' goals and objectives of the employees are not clearly defined	

10	We lack the required resources and training to act with responsibility and accountability	
	STYLE	SHARED VALUES
1	I agree with the way our organization handle questions of right and wrong	I feel pressured here to do things that are unethical or dishonest
2	New leaders are being identified and groomed by existing leaders	We do not share values, fairness and ethical role models at any level of the organization
3	Commitment of the senior leaders to quality improvement, innovation and organizational sustainability	I do not understand the mission statement of my parent organization/ division
4	Our HR department tracks and/or measures the outcomes of training/development interventions	We try to ensure that the objectives of the laboratory are linked to user/ customer needs and expectations
5	Degree of information sharing and communication among the workforce	We understand and motivate the people towards the organization's goals and objectives
6	All stakeholders are included in the decision-making process	We establish a clear vision of the organization's future

7	Participation of Users in the goal/ target setting and the perspective plans	We inspire, encourage and recognize employee's contribution
8	Extent to which information related to risks, challenges and opportunities is used in goal setting	We understand the importance of employees and their contribution and role in the organization
9		The top management inspires and encourages employees to contribute
10		Resistance to change is visible amongst all stakeholders
	STAFF	
1	My organization place a high value on officers & staff for various training and development programs	
2	Our training needs are identified based on the competency mapping/ performance reviews	
3	We set up interdisciplinary task forces/ matrix structure to deal with major problems or opportunities	
4	The existing Performance appraisal system of your organization is relevant in today's context	
5	The existing Performance appraisal system of your organization is relevant in today's context	

6	There is a good feeling of teamwork in my workgroup
7	Other members of the department are helpful to me whenever assistance is requested
8	Employees do not own the problems and hence do not accept the responsibility for solving them
9	Employees generally avoid discussing the problems and issues openly

Table 3- Cronbach's alpha test for reliability of factors of mckinsey's 7s model

S no.	Factors of Mckinsey's 7s model	No of Items	Cronbach's alpha
1	Structure	11	0.724
2	System	10	0.733
3	Strategy	10	0.713
4	Skills	8	0.785
5	Style	8	0.840
6	Shared values	10	0.754
7	Staff	9	0.751

Table 4- Analysis of structure factor's attributes of mckinsey's 7s model

S.no	Attributes	Mean± SEM	P Value
1	My parent organization is quite rigid and has very limited ability to change	1.97±0.83	> 0.05
2	Responsibility and accountability for managing key activities are clearly established	3.927±0.86	> 0.05
3	Data and information available in the laboratory are sufficiently accurate and reliable	3.971±0.82	> 0.05

4	User/customer needs and expectations are communicated throughout the Organization	3.927 ± 0.64	> 0.05
5	We minimize the miscommunication between levels of an organization	4.144 ± 0.75	> 0.05
6	My opinion is restricted in decision making and problem-solving	1.667 ± 0.74	> 0.05
7	The processes are integrated and alignment that will best achieve the desired results	4.014 ± 0.69	> 0.05
8	We understand organizational capabilities and establishing resources constraints prior to action	3.956 ± 0.86	> 0.05
9	We are flexible and react quickly to opportunities	$3.362 \pm 0.68^*$	< 0.05
10	We focus on factors such as resources, method, and materials - that will improve key activities of the organization	3.971 ± 0.89	> 0.05
11	Project teams lack with regards to consistency in managing the change	1.971 ± 0.70	> 0.05

*p-values < 0.05 (Analyzed using Paired T-test)

Table 5- Analysis of system factor's attributes of mckinsey's 7s model

s no.	Attributes	Mean± SEM	P Value
1	User satisfaction is measured periodically and act on the results	2.03±0.45	> 0.05
2	We understand the interdependencies between the processes of the system	3.97±0.82	> 0.05
3	Employees making decisions and taking action based on factual analysis, balanced with experience and intuition	3.97±0.70	> 0.05
4	I understand clearly the needs and expectations of our User/customers	4.13±0.59	> 0.05
5	Continual improvement of products, processes, systems and objective for every individual are made in the organization	3.94±0.51	> 0.05
6	Brainstorming is organized where people can openly discuss problems and issues	3.86±0.61	> 0.05
7	Joint development and improvement activities are established	4.01±0.58	> 0.05
8	We research and understand user need and expectations	3.89±0.62	> 0.05

9	The employees seeking opportunities are identified to enhance their competence, knowledge and experience	4.00±0.48	> 0.05
10	The employees are evaluated on the benchmarking against their personal goals and objectives	3.88±0.65	> 0.05

Table 6- Analysis of strategy factor's attributes of McKinsey's 7s model

s no.	Attributes	Mean± SEM	P Value
1	Our organization has a sound planning process including strategic plan, tactical plans and short term goals	4.101±0.75	> 0.05
2	There are logical reasons for change which are visible to all and the goals are transparent	4.029±0.82	> 0.05
3	Extent to which the working conditions and compensations are able to attract new productive workforce and retain the existing employees	3.942±0.59	> 0.05
4	The future actions are guided by the findings of performance measurement and review	4.144±0.73	> 0.05
5	New projects are well planned and are in line with the User's expectations	4.202±0.69	> 0.05
6	My boss keeps all of us up-to-date about what is	4.130±0.61	> 0.05

	happening		
7	There is no system to recognize and acknowledge improvements	2.014 ± 0.79	> 0.05
8	Extent to which data and information are available to measure, analyses and review the Organization's performance	$3.739 \pm 0.53^*$	< 0.05
9	Individuals' goals and objectives of the employees are not clearly defined	1.956 ± 0.60	> 0.05
10	We lack the required resources and training to act with responsibility and accountability	1.608 ± 0.49	> 0.05

*p-values < 0.05 (Analyzed using Paired T-test)

Table 7- Analysis of skills factor's attributes of mckinsey's 7s model

s no.	Attributes	Mean \pm SEM	P Value
1	Extent to which system supports continuous learning and development of the workforce	4.144 ± 0.89	> 0.05
2	We are in a dynamic environment that forces us to keep abreast in the cutting edge technologies	3.927 ± 0.60	> 0.05
3	Freedom is given to the workforce to share ideas and taking decisions (to their limits) for overall	3.985 ± 0.79	> 0.05

	improvement in the quality		
4	Quality of knowledge database that is required to enhance the indigenous capabilities	3.985 ± 0.81	> 0.05
5	My organization is arranging targeted training for highly technical work	4.130 ± 0.82	> 0.05
6	Competence of technicians, support staff, etc. to achieve high performance	3.985 ± 0.86	> 0.05
7	I have a clear vision of where we are going and my goals are aligned to attain the vision of my department	4.202 ± 0.85	> 0.05
8	Performance accountability of the workforce	3.971 ± 0.80	> 0.05

*p-values< 0.05 (Analyzed using Paired T-test)

Table 8- Analysis of style factor's attributes of mckinsey's 7s model

s no.	Attributes	Mean± SEM	P Value
1	I agree with the way our organization handle questions of right and wrong	3.956±0.71	> 0.05
2	New leaders are being identified and groomed by existing leaders	3.942±0.74	> 0.05
3	Commitment of the senior leaders to quality improvement, innovation and organizational sustainability	4.130±0.74	> 0.05
4	Our HR department tracks and/or measures the outcomes of training/development interventions	3.971±0.80	> 0.05
5	Degree of information sharing and communication among the workforce	4.101±0.87	> 0.05
6	All stakeholders are included in the decision-making process	3.985±0.65	> 0.05
7	Participation of Users in the goal/ target setting and the perspective plans	4.217±0.72	> 0.05
8	Extent to which information related to risks, challenges and opportunities is used in goal setting	3.942±0.87	> 0.05

*p-values< 0.05 (Analyzed using Paired T-test)

Table 9- Analysis of shared values factor's attributes of mckinsey's 7s model

S no.	Attributes	Mean± SEM	P Value
1	I feel pressured here to do things that are unethical or dishonest	1.391±0.62	> 0.05
2	We do not share values, fairness and ethical role models at any level of the organization	2.058±0.44	> 0.05
3	I do not understand the mission statement of my parent organization/ division	1.565±0.62	> 0.05
4	We try to ensure that the objectives of the laboratory are linked to user/ customer needs and expectations	4.014±0.73	> 0.05
5	We understand and motivate the people towards the organization's goals and objectives	3.550±0.60*	< 0.05
6	We establish a clear vision of the organization's future	3.869±0.63	> 0.05
7	We inspire, encourage and recognize employee's contribution	4.014±0.60	> 0.05
8	We understand the importance of employees and their contribution and role in the organization	3.985±0.58	> 0.05

9	The top management inspires and encourages employees to contribute	3.869±0.66	> 0.05
10	Resistance to change is visible amongst all stakeholders	1.869±0.66	> 0.05

*Significant gap as p-values< 0.05 (Analyzed using Paired T-test)

Table 10- Analysis of staff factor's attributes of mckinsey's 7s model

S no.	Attributes	Mean± SEM	P Value
1	My organization place a high value on officers & staff for various training and development programs	4.19±0.73	> 0.05
2	Our training needs are identified based on the competency mapping/ performance reviews	3.97±0.72	> 0.05
3	We set up interdisciplinary task forces/ matrix structure to deal with major problems or opportunities	4.18±0.73	> 0.05
4	The existing performance appraisal system of	3.35±0.77*	< 0.05

	your organization is relevant in today's context		
5	We have benchmarkers that track whether plans are being implemented successfully	3.91 ± 0.68	> 0.05
6	There is a good feeling of teamwork in my workgroup	4.37 ± 0.62	> 0.05
7	Other members of the department are helpful to me whenever assistance is requested	4.23 ± 0.84	> 0.05
8	Employees do not own the problems and hence do not accept the responsibility for solving them	2.10 ± 0.57	> 0.05
9	Employees generally avoid discussing the problems and issues openly	2.19 ± 0.62	> 0.05

*Significant gap as p-values < 0.05 (Analyzed using Paired T-test)