

A study of effectiveness of training and development in oil and gas sector in India

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Abstract

The impact of globalization is well known in every sector, even oil and gas sector is affected by the change in technology. The technological advances in the oil and gas industry have improved the recovery of oil. The ever growing demand in oil and gas sector forces companies of this sector to optimize their management. The industry generates millions of jobs directly or indirectly, thus human resource is seen as intangible and crucial resource of which optimal usage can create enhanced performance and increased profits. Training and development programmes play vital role in developing skillfulness and knowledge in human resource of a firm. In this paper we try to study the impact and effectiveness of Training and development programme on employees of OIBD.

Keywords: training and development, human resource management, oil and gas sector

Introduction

The business organization irrespective of its nature needs many factors for its growth, further development and for its long term survival. The most vital factors are Capital, Materials, Machineries and Human Resources as the sustainability any organization depends on the efficient combination of these factors. Managing all other factors are relatively easier than managing Human Resources. The Human Resources are considered as crucial resource and need to be handled carefully. All the others factors like capital, raw material and infrastructure are managed by the human resources of a company, therefore they have to be trained in a efficient manner to utilize the resources at best possible level to get the desired output and ultimately achieve their organization goals. According to Rao T. V. & Pareek (1981, 1992) ^[11] the human beings are a great asset to the organization that enhance achievement of the firm.

The outcome of the efficient combination of all these factors leads to the way of success. The training is defined as the learning which is provided to improve and enhance the performance of the employee (human resource) on the present job. A person's performance is enhanced by showing him/her how to master a new or established technology. The technology can be anything varying from a piece of heavy machinery, a computer, a procedure for developing a product, or a technique of providing a service.

Oliver Sheldon proposed that, *"No industry can rendered efficient so long as the fact remains unrecognized that the in principally human – not a mass of machines and technical process but a body of men. If manpower is properly utilized it causes the industry to run at its maximum optimization getting results and also work for as an climax for industrial and group satisfaction in the relation to the work formed"*.

If one wants to achieve success through competitive advantage then the employee training serves as the medium which develop and enhance their employers and also safe guard the organizational objectives of survival and profitability.

Nowadays the training function are popularly known as

'Human Resource Development' that organize the provision of training and development activities and experiences in the organization. Hence it can be said that the competitive advantage is dependent on the knowledge and skill possessed by employee as compare to the finance or market structure by organization. Babbage (1997) paid more emphasis on specialized training than general training.

Due to the dynamic competitive market environment in recent years, the scope of Training and Development has broadened from simply exercise such as providing training programs to the facilitating learning throughout the organization in a wide variety of ways. There is increasing recognition in the mindset of the management of organizations that need of updating and learning new technology is must for every employees, it can be done either by their self experiences and from each other or from formally structured training programs. There are various training that can be provided to a employee such as The Computer Application Training and New Employee Training, various management and supervisory skills such as leadership, performance appraisal, and problem solving.

Review of literature

Definitions

- "Training is systematic development of the knowledge, skills and attitudes required by an individual to perform adequately a given task or job". (Michael Armstrong)
- "Training improves a person's skill at a task. Training helps in socially, intellectually and mentally developing an employee, which is very essential in facilitating not only the level of productivity but also the development of personnel in any organization". (Oatey, 1970) ^[10].
- "The influences of trainees' characteristics on training effectiveness have focused on the level of ability necessary to learn program content. Motivational and environmental influences of training effectiveness have received little attention. This analysis integrates important motivational and situational factors from organizational behavior theory and research into a model which describes how trainees'

attributes and attitudes may influence the effectiveness of training” (Raymond, 1986) ^[12].

- “Training is the act of increasing knowledge and skills of an employee for doing a particular job.” (Edwin B Flippo (1984))
- “Development is a process that “strives to build the capacity to achieve and sustain a new desired state that benefits the organization or community and the world around them. (Garavan *et al.*, 1995) ^[6].
- “Training is defined as the process by which individual change their skills, knowledge, attitudes and/or behavior”. Robbins and DeCenzo (1999) ^[5].
- “Training programme is dependent on the following parameters for its success (i) perceived value of leaning programme (ii) attitude to teacher (iii) response to learning conditions (iv) desire to learn: the degree to which trainees really want to learn and do well”.(Chih, Li, Lee, 2008) ^[4].
- “Usefulness of training programme is possible only when the trainee is able to practise the theoretical aspects learned in training programme in actual work environment. They highlighted the use of role playing, cases, simulation, mediated exercises, and computer based learning to provide exposure to a current and relevant body of knowledge and real world situations”.(Bates and Davis, 2010) ^[3].
- “Training objectives tell the trainee that what is expected out of him at the end of the training program. Training objectives are of great significance from a number of stakeholder perspectives; Trainer, trainee, designer, evaluator” (Kartilk. R. 2012)

Importance of training

Due to the rapid changes in the business arena such as increase in technological development create situation where the Training and Development plays a crucial role in coping up with the tremendous environmental changes by developing human resource according to the need of the industry. the increased pace of technological innovations, new R&Ds and the pressure of global competition have forced the organizations to change their ways to operate and the skills that their employee need. The high competition and the tight labor market have further increased the importance of training. The higher employee turnover indicates more new employees need training. Secondly, it has been observed that the frequent and relevant training and development experiences are an effective way to gain employee loyalty and enhance retention of top-quality human resource.

Need for Training

Training must be modified to fit the organization’s strategy and structure, as every organization has unique structure. It is seen as crucial in executing organization-wide efforts, such as developing a committed customer service; adopt total quality management in various departments, or making a change to self-directed efficient work teams. Human Resource Development departments have shifted their focus from simply providing training on demand/request to the solving organizational problems.

Nowadays, trainers are seen as internal consultants or performance improvement experts rather than just classroom presenters or program instructors. Training is only one of the therapy that may be applied by the new kind of Human

Resource Development practitioners.

In an age of network organizations, strategic alliances, and long-term better stakeholders relationships such as good relationship with supplier and customers, leading companies face the urgent need to train people other than their own employees. To ensure better stakeholders management some organization offer quality training to their suppliers, and other have a strong focus on customer service by providing training for purchasers to their product. Hence, training is a useful and vital tool which can be used on crucial stakeholders like suppliers and customers which provide a firm a competitive edge over its competitors and a better market place.

Skilled and knowledge people (employees) are always less in number, which makes them too expensive to hire from outside. The best alternative of this problem is to improve the skill and knowledge base of the existing employees through proper training and development programs. The rapid growth of technology takes place at a very speedy pace that results in current technological obsolesces in the near future. The updated and new training and development programs are the solution for the future technological obsolesce. One of the major reasons that points out the need for training are to overcome the personal obsolesces of the employees. As during the time of the recruitment, employees hold a certain amount of knowledge and skill that fulfills all requirements of job at that time. But with the time their knowledge becomes obsolete unless it is updated by proper training. This occurs due to the improvement and automation in machinery and more R&D to make better product. The training and development programs are not only confined to improve productivity of employees but also contribute to overcome organizational obsolesce by adopting various innovative methods in the functioning of management. If employees are provide better instructions it will increase their level of performance, which have a direct impact on increase in operational productivity and more company profits. The latest trend is to see employees as ‘Human Capital’. More and more expenditures are done in training and development which is considered as an investment to equipped employees with latest knowledge and skill to cope in the competitive global environment.

How Training & Development is linked To Human Resource Management?

Various researches (Gills (1977), Singh (1989), Rao (1991) ^[11], Sah (1991) suggest that high level of productivity is interrelated to the effective use of material, money, machine and human resource. The intangible human resource have unlimited potential as compared to other tangible resources. This human resource can be efficiently utilized through providing effective training and development programs. The proficient T&D programs results in:

- Improved communication between employees and superiors.
- Enhances interpersonal skill
- Facilitates every employee about information on equal opportunity
- Increases team building in employees
- Provides a good environment for learning, growth and co-ordination.
- Improves employee and management relation
- Assist in creating enhanced corporate image

- Provides information about the departments that need improvement in organization

Research Objectives

Training facilitates employees to develop and train within the organization and increase the market value and provides job security. It would boost the employee’s confidence and also create positive attitude towards their work and organization which further results in better productivity. The main objective of this research paper is to study and identify the various training and development exercises/programs that give organization a competitive advantage over their competitors and also provides sustainability. Our research objectives are:

- To Study the Training policy and various development programs being conducted at OIDB
- To find out effectiveness of these training programs through the employees’ perception

Industry Overview

India is the world’s fourth-largest energy consumer in 2014 whereas it grabs third position in 2015, in which oil and gas accounts for 37% of its total energy consumption. It is expected that the demand for primary energy in India would increase tremendously by 2035 to 1,516 million tons of oil. (IBEF, 2016). The oil and gas industry in India is one of the oldest sectors which ways back from 1889 when oil deposit of the country was discovered in Digboi (Assam). In India the natural gas industry began in 1969 when gas fields were discovered in Assam and Gujarat. The oil and gas sector in India is highly regulated sector and is controlled by the government and shows tremendous scope of growth in future. India is dependent in terms of oil and gas, it imports half of its requirement of crude oil. (Desai, N. 2014). With the growing demands of energy GOI realize that national oil companies (NOI) cannot meet the future requirement of energy, to control that situation they encourage the private companies to get involve in oil and gas sector. The PSUs’ in oil and gas sector are Gas Authority India Ltd (GAIL), Oil and Natural Gas Corporation Ltd (ONGC), India Oil Corporation Ltd (IOCL), Bharat Petroleum Corporation Ltd (BPCL), Hindustan Petroleum Corporation Ltd (HPCL), Oil India Corporation (OIL) and the private companies that are involved in this sector are Essar Oil, Reliance industries Ltd (RIL) and Royal Dutch Shell.

OIDB

The Oil industry development board was established on 13th January 1975, under the oil Industry (Development) Act, 1974 to provide financial assistance for development of Oil Industry. The Oil Industry (Development) Act, 1974 was enacted following successive and steep increase in the international prices of crude oil and petroleum products since early 1973, when the needs of progressive self-reliance in petroleum and petroleum based industrial raw materials assumed more importance. The Oil Industry Development Board is functioning under the administrative control of Ministry of Petroleum & Natural Gas. The Board is mandate under the said Act to provide assistance. The assistance is provided by the Board for undertaking the following activities:

- Prospecting for an exploration of mineral oil within India (including the continental shelf thereof) or outside India.

- The establishment of facilities for production, handling, storage and transport of crude oil.
- Refining and marketing of petrochemicals and fertilizers.
- Scientific, technological and economic research which could be directly or indirectly useful to oil industry.
- Experimental or pilot studies in any field of oil industry.
- Training of personnel whether in India or outside, engaged or to be engaged in any field of oil industry and such other measures as may be prescribed.

OIDB has been providing assistance through Grants to the five regular grantee institutes namely Directorate General of Hydrocarbons (DGH), Oil Industry Safety Directorate (OISD), Centre for High Technology (CHT), Petroleum Conservation Research Association (PCRA) and Petroleum Planning and Analysis Cell (PPAC). (OIDB, 2016)

T&D in Oil and Gas Sector

The tremendous changing pace and ever growing demand in global energy (oil and gas sector) market economy, creates requirement of new professional qualified professionals in both onshore and offshore operations. The innovation and differentiation in technology is the vital feature for energy sector, also to cope with the change they need skilled employees. The effective training and development programs help in enhancing skills and knowledge of employees. The various training process in oil and gas sector are:

Oil and Gas Courses

These courses include geology field trips and courses covering various technical theories and techniques, latest and updated software for engineers and geologists.

- Focused Training Programs
- Upstream Modern Apprenticeships (MA) Scheme
- Minimum Industry Safety Training
- Basic Offshore Safety Induction & Emergency Training
- Open courses in Oil & Gas industry
- Online courses / e-learning for Oil & Gas professionals
- Professional training for Oil & Gas non-drilling personnel - Onshore Operations

There are various ways to gain skillfulness and knowledge to equip human resource of the organization to handle the change in the market environment.

Research Methodology

The research methodology for the present paper is quantitative. For the quantitative research the data was collected through questionnaire from the employees of OIDB. The number of respondent was 30.

Data Analysis

Table 1: Age distribution of employees

Age class	No. of respondents	Percentage
Yes	15	87
No	6	23

Interpretation of table 1: The above table indicates that 30% of the employees fall under age group of 35years and above who enjoy more experience with regard to their responsibility

Table 2: the response of respondents about the training program conducted last year

Age class	No. of respondents	Percentage
Less than 30	15	50
30-35	6	20
35-40	8	27
40 & Above	1	30
Total	30	100

Interpretation of table 2: From the above analysis, they can conclude that majority of the respondents had undergone training program in the last year

Table 3: Type of training undergone by employees of Oil and gas sector

Types of training	Respondents	Percentage
On-Job Training	20	60
Off-Job Training	6	20
Both	4	13
Total	30	100

Interpretation of table 3: The above table shows that on-job training is given importance in Oil and Gas sector.

Table 4: Response towards satisfaction level duration T&D

Response	Respondents	Percentage
Satisfied	22	66
Non Satisfied	0	0
Moderately	5	15
Can't say	3	9
Total	30	100

Interpretation of table 4: Mostly employees are satisfied with T&D

Table 5: Employees selection criteria for training

Response	Respondents	Percentage
Department	9	27
Company	6	18
Random	14	42
Not known	1	3
Total	30	100

Interpretation of data: The above vividly depicts the 42% of employees are selected randomly for the training programme and no other proper method is followed

Table 6: Opinion of respondent about the receiving training regularly

Response	Respondents	Percentage
Yes	28	92
No	2	8
Total	30	100

Interpretation of data: It is found that training is a regular and continuous process based on the training needs.

Table 7: Awareness about training objectives being selected

Response	No. of Respondents	Percentage
Yes	26	87
No	4	13
Total	30	100

Interpretation of table7: Data clearly shows that the most of the employees are aware about the Training objectives when being selected.

Table 8: Opinions of respondents about the trainees feedback

Response	No. of Respondents	Percentage
Yes	24	80
Not at all	0	0
To some extent	3	10
Not known	3	10
Total	30	100

Table 9: Opinion of respondents about skills And tactics taught for efficient job execution

Response	No. of Respondents	Percentage
Yes	11	37
Not at all	0	0
To some extent	6	20
To great extent	10	33
Total	30	100

Interpretation of data: From the above analysis it can be concluded that the majority of respondents accepts that the Training helps in improving their skills and execute their job efficiently.

Table 10: The management co-operation during T&D

Response	No. of Respondents	Percentage
God	26	87
Moderate	4	13
Bad	0	0
No support	0	0
Total	30	100

Interpretation of data: Above analysis shows that majority of respondents says that management is extending its full Co-operation during T&D

Table 11: Showing the opinion of respondents about Knowledge development during training

Response	No. of Respondents	Percentage
To some extent	12	40
To great extent	12	40
Yes	6	20
Not at all	0	0
Total	30	100

Interpretation of data: It was observed that the Majority of the respondents agree that training enhance Knowledge development during training program

Table 12: Illustrating the opinion about training course

Response	No. of Respondents	Percentage
Good	25	83
Properly chose	5	17
Bad	0	0
Total	30	100

Interpretation of data: Above analysis shows that majority of respondents says it is properly chosen

Table 13: Opinion of respondents towards the Facilities provided during training

Facilities	No. of Respondents	Percentage
LCD	25	83
OHP	5	17
BOOKs	0	0
AUDIO	0	0
Total	30	100

Interpretation of data: From above analysis It is clear that that majority of respondents says LCD facilities are provided during training.

Table 14: The satisfaction level of the respondents about the training facilities provided

Response	No. of Respondents	Percentage
Yes	27	90
No	3	10
Total	30	100

Interpretation of data: It is evident from the data that majority of respondents are satisfied with existing facilities provided during training

Table 15: The opinion of respondents about the Trainer’s theoretical knowledge

Response	No. of Respondents	Percentage
Excellent	9	30
Good	17	57
Average	4	13
Poor	0	0
Total	30	100

Interpretation of data: The above analysis conclude that majority of the respondents are showing positive opinion about the Trainer’s theoretical knowledge is good

Table 16: Illustrating the opinion towards freedom of expression given to trainees

Response	No. of Respondents	Percentage
Good	29	97
No freedom	0	0
Average	1	3
Total	30	100

Interpretation of data: The majority of respondents are highly satisfied with freedom extended to them to express their doubts

Table 17: Showing the response of employees Towards T&D program is regular activit at OIBD

Response	No. of Respondents	Percentage
Yes	30	100
No	0	0
Total	30	100

Interpretation of data: Analysis shows that T&D Program is a regular activity at the company.

Table 18: The opinion of respondents about investment made on training gains more than the expected returns/results

Response	No. of Respondents	Percentage
Yes	30	100
Not at all	0	0
Total	30	100

Interpretation of data: Analysis shows that the company is gaining expected from training

The ROI – The return on investment made towards training and development activity is difficult to measure. The T&D enhances knowledge and increases skillfulness of employees and equipped them to cope with technological and innovative market changes.

Findings

The findings of the study conducted on T&D at OIBD are as following:

- Training and development programs at OIBD are aimed at systematic development of knowledge, skills, attitude and team work.
- The majority of employees fall under age group of 35 years and above who enjoys more experience with regard to their responsibility.
- Maximum respondents have undergone training program in the last year. But it is only showing 66% of the respondent are satisfied with the training duration
- The employees are not aware about the criteria of selection for Training. 42% of the employees are selected randomly for the training programme and no other proper method is followed
- The Trainee has to know the objectives of Training before selection. Only 87 % of the employees are aware about the objective of training when being selected.
- Knowledge is the important factor for any kind of learning. It gives an idea to employees about the subject matter. 40% said that the training imparted is only helping to some extent in gaining the knowledge, not to the full extent.
- Training is given to employees by recognizing their area of deficiency. No training is imparted to the employees on the basis of giving promotion upon completion.
- The Return of investment made on the training and activity are not measured
- properly. Employees are feeling that the return on investment made for training is more than the expected gain.

Conclusions

We conclude our study in following points:

- The human resource executives should be exposed to lot of management programs.
- More experienced and senior executive should be involved in training sessions and
- for experience sharing sessions
- The duration of the Training programme should increase.
- The employees should aware about the criteria for

selection and they should aware about the objectives of training when being selected.

- Training should be more relevant to the job and need contribute to trainees
- knowledge to the fullest extent.
- Training also to imparted to the employee based on giving promotion, not just only for the employees who are found inefficient. This helps in motivating the employees and maintain the effectiveness of training.
- The ROI – The return on investment made towards training and development activity need to be measured. Employee has to be aware about the cost invested by Company indirectly and they will be motivated to get the desired result output.

Suggestions

- In today's competitive world, attitude is the factor which is the dividing line between failure and success. Thus recruitment of the employees must be made not only on skills and attitude but also the attitude of the employee. If an employee has a positive attitude then training for him can be more effective, he has a positive effect on the climate.
- The raining records must be maintained, preserved properly and updated timely.
- Proper care should be taken while selecting the trainers.
- OADB trainers must be given continuous feedback and the training should be performed as a continuous planned activity.
- New and different trainers should be invited so that the maximum impact can be got from the training programmes.
- Co –ordination and interaction of the employees of all levels must be encouraged to locate new talents among employees.
- Solution to some of the problems faced by the employees, should be suggested by the employees themselves to make them feel valued at the organization.
- The DAP (Development Action Plans) must be prepared and given to the trainers as soon as possible for further follow up from the side of the trainers.

Limitations

- The sample size is too small to reflect the opinion of the whole organization. Due to the lack of data the results cannot be generalized on energy sector.
- Little provision for free expression of unanticipated responses. May be difficult to construct. It has limited effectiveness in getting at the causes of problems and possible solutions.
- In view of the limited time available for the study, only the Training and Development process could be studied.

References

1. Armstrong M. A Handbook of Human Resource Management Practice, Kogan Page, 8th Editon, 2001.
2. Aswathappa K. Human resource and Personnel Management, Tata Mcgraw-Hill Publishing Company Limited, New Delhi, 2000.
3. Bates Donald L, Davis, Tammy J. The Application Bridge: A Model for Improving Trainee Engagement in

the Training Process, International Journal of Management. 2010; 27(32):770-776.

4. Chih Jin-Ton Li, Ching-Hsiang, Hung-Wen Lee. "Relationship between Trainee Attitudes and Dimensions of Training Satisfaction: An Empirical Study with Training Institute Employees, International Journal of Management. 2008; 25:756-765.
5. DeCenzo DA, Robbins SP. Human resource management. (6th Ed.). John Wiley and Sons, Inc., USA, 1999.
6. Garavan TN, Costine P, Heraty n. The emergence of Strategic human resource development. Journal of European Industrial Training. 1995; 19(10):4-10.
7. Karthik R. Training and Development in ITI Limited – Bangalore, Advances In Management. 2012; 5(2):54-60.
8. Kim LS. Management Control Systems and Strategy: A Critical View. 1997, 207-232.
9. Mamoria CB. Personnel Management (Management of Human resources), Himalaya Publishing House, Bombay, 1995.
10. Oatey M. The economics of training with respect to the firm. British Journal of Industrial Relations. 1970; 8:1-21.
11. Pareek, Udai, Rao TV. Designing and Managing Human Resource System, Oxford & IBH Publising Co Pvt. Ltd., New Delhi, 1981.
12. Raymond AN. Employee Training and Development, Third Edition International, 2005.