



A STUDY ON OIL AND GAS INDUSTRY AND ITS SIGNIFICANCE

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ABSTRACT

With a GDP of US\$1.25 trillion, India is currently the world's fourth-largest economy. The country's oil and gas sector has contributed significantly to the GDP, and the sector is expected to become increasingly critical for India's economic development, since it fuels the growth of other sectors. India is already the fifth-largest energy consumer in the world, with oil and gas accounting for 45% of the country's energy needs. However, the proportion of natural gas consumption in India to total energy consumption in the country (around 9%) is one third compared with the proportion of natural gas in the world's primary energy consumption.

KEYWORDS: PSU, Oil, energy sector

INTRODUCTION

With a 53% share in the primary energy sector, coal remains the dominant fuel, but its share is projected to decrease with the thrust on gas and other renewable sources increasing. With India's growing population and rising living standards, the demand for energy is expected to increase in future. India's fuel needs are likely to grow at a significant rate, considering the growth pattern of the country's GDP in the past few years. Currently, India's per capita consumption of energy is well below that of the world average (around one fourth).

India is currently facing a substantial crude oil deficit, as its current production levels are lagging behind the fast pace of the economy. This has resulted in significant imports of crude oil. The demand-supply gap is set to widen in future with a consumption increase of 47% between 2008 and 20181 and with production poised to increase by around 12% in the same period.

India's heavy dependence on import of crude oil has compelled the Government of India (GoI) to provide a long-term policy for the hydrocarbons sector in order to meet the

country's future energy needs. There are significant implications for the oil and gas sector in terms of the growth path it has charted:

The introduction of the New Exploration and Licensing Policy (NELP) and the subsequent entry of multinational companies (MNCs) in the exploration and production (E&P) sector have given impetus to the country's oil and gas sector. Unexplored sedimentary area of 50% in 1995–96 reduced to 15% in 2009.

► In the past five years, the refining sector has witnessed additions in its refining capacities, and this trend is expected to continue with the implementation of major new capacities. It is anticipated that this sector will witness large investments for capacity augmentation, quality upgrades, the clearance of bottlenecks, and the revamping of various refineries. India is likely to boost its refining capacity by 45% by 2011–2012 as against 2008 (150 MTPA).

The petrochemical sector is poised for significant growth due to significant demand for petrochemical products. The demand is expected to touch 10 million tons by 2010, thereby witnessing annual growth of 9%–10%. With various refining companies

diversifying into the petrochemical segment, existing capacities in this sector are likely to double in the next five years.

On the back of growth in petroleum production and refining, as envisaged by the Hydrocarbon Vision 2025 report, infrastructure is likely to witness significant growth, especially in the pipelines sector. IOCL and GAIL are cumulatively expected to add around 5,000 km to their existing pipeline networks.

It is expected that the GoI's emphasis on clean fuel will lead to a marked increase in the city gas distribution (CGD) business, with around 40 cities expected to fall under the ambit of CGD by 2012.

Manpower projections for the oil and gas industry predict a substantial demand for oil and gas professionals over the next five years. The sector needs to tide over the challenges of attraction and retention efficiently to support current operations and execute planned growth. One of the common challenges all sectors within the oil and gas value chain currently face is planning for the sustained availability of a competent workforce. Although technological development has garnered benefits that have allowed oil and gas

companies to reduce manpower requirements, future technological advancement is not expected to manage offsetting impending manpower requirements. Existing academic institutes are not sufficient to ensure industry stability in terms of manpower supply.

CHALLENGES OF HRD IN OIL AND GAS INDUSTRY

Aging workforce

Largely in line with the global trend, the average age of workforce employed in the Indian oil and gas sector is high. This is a major challenge, particularly for upstream companies, which are expected to find it particularly difficult to replenish talent loss due to heavy retirement in the next five years. Intermittent hiring by oil and gas companies has led to the majority of the workforce being skewed at the top of the organizational pyramid. Around 50% of employees have more than 20 years of experience, and the majority is due to retire in the next 5–10 years.

Retirement

As a natural consequence of the aging workforce, impending employee retirement in the sector is expected to peak over the

next five years. Around 11% of the current workforce⁴ is estimated to retire in the next five years. This is likely to significantly reduce experienced talent in the oil and gas sector. Further, public sector undertakings (PSUs) are expected to be considerably impacted as a result of projected retirement rates. It is also anticipated that the sector will witness 34% of retirement at the middlemanagement level, which implies a significant loss of experience. Core technical functions will face major manpower challenges due to retirement. Three-fourths of all retired people are expected to hail from technical or core functions such as geosciences, reservoir, production, maintenance, technical services and R&D.

Attrition

Attrition is another major reason for the loss of talent in the Indian oil and gas sector. It is estimated that in the next five years, around 7% of the current workforce will leave the oil and gas sector in India⁵. A study of total attrition by level reveals that the upstream oil and gas sector is faced with significant attrition at the middle-management level, while other sub-sectors are facing this challenge at junior-management levels.

Middle-management attrition in the E&P sector is due to various international opportunities available for employees with more than 10 years of experience. The lack of career opportunities and extreme working conditions are other primary reasons for employee attrition. In the downstream (refining and petrochemical) and marketing sectors, around 75% of attrition is expected at the junior-management level, indicating the absence of a robust talent-retention mechanism in organizations.

Attracting talent

Attrition and retirement are not unique to the oil and gas sector. In fact, sectors such as IT-ITeS, retail and telecom face far more attrition than the oil and gas sector does. The loss of manpower due to retirement is common in core sectors such as power and heavy engineering. The key cause for concern around the loss of industry talent is that skill sets in this industry are highly specialized and difficult to develop and acquire. Thus, the impact of losing industry professionals with five or more years of experience is likely to be of high magnitude.

Therefore, a strong talent development strategy needs to be developed and followed at all levels in an organization. Significant

efforts to attract talent from engineering campuses are the need of the hour. Lack of awareness among people about this sector in India is another challenge. Certain negative perceptions around the sector have become common over time among students, parents and counselors. It is largely presumed that working conditions in this industry are generally hazardous and that postings are typically restricted to remote locations. This impacts talent attraction and acquisition relevant courses in the oil and gas sector in India.

As such, a dedicated communication campaign highlighting various career options in the sector needs to be developed. The communication campaign is likely to motivate students to opt for courses in oil and gas and subsequently join the sector.

Inadequate supply of talent from institutes

The sector is also facing issues around the availability of a solid talent pool from universities and institutes that typically contribute to its talent base. To analyze the magnitude of the problem, technical institutes were categorized into various levels based on the industry's preference for these institutes:

The sector currently relies heavily on level 1 and level 2 technical institutes and universities for talent sourcing. These institutes produce high-quality technical manpower. Over the years, the inflow of talent from these institutes to core sectors, particularly oil and gas, has been dwindling.

This indicates the growing demand and popularity of courses such as IT, computer science and electronics. Level-1 institutes comprise only around 4% of total institutes in India (around 1,400). According to industry estimates, only 10% of students equipped with core skills are inclined to join the oil and gas sector.

The Oil and Natural Gas (“O&NG”) sector has tremendous growth potential in India. It is a well regulated industry and in spite of the slowdown in the Indian and global economy, demand for O&NG has been consistent. Traditionally, O&NG has been the domain of the Government of India (“Union Govt.”) and select government enterprises. With liberalization and privatization, there has been participation from private entities, both domestic and foreign.

SIGNIFICANCE OF THE STUDY

An organization became dynamic and growth oriented if their people are dynamic and proactive. Through proper selection of people and by nurturing their dynamism and other competencies an organization can make their people dynamic and proactive. To survive it is very essential for an organization to adopt the change in the environment and also continuously prepare their employees to meet the challenges; this will have a positive impact on the organization. Climate at the individual level is a summary perception of the organization’s work environment that is descriptive rather than evaluative in nature.

Human resource development (HRD) is concerned with the provision of learning and development opportunities that support the achievement of business strategies and improvement of organizational, team and individual performance. HRD is the process of improving, molding and changing skills, knowledge, creative abilities, aptitude, attitude, values, commitment, etc., based on present and future job and organizational requirements.

CONCLUSION

Measuring the perceptions of knowledge workers about the prevailing nature of HRD

is known as HRD Climate. HRD Climate can be defined as the perceived attributes of an organization and its subsystems as reflected in the way an organization deals with its members, groups and issues (Litwin and Stringer, 1968). Whereas various functions of Human Resource Management (HRM), such as Manpower Planning, Recruitment, Selection, Career Planning and so on, are carried out through HRD Systems and Sub-Systems.

The constant support of the organization through HRD practices increases the level of job involvement and accordingly affects the performance of the managers. Number of studies has verified that the Managerial Effectiveness is influenced by HRD climate and HRD Systems both. HRD Sub ñ Systems has become an important variable to influence the Managerial Effectiveness. The Public sectors in India are facing the transition phase in current globalization environment. To survive and excel in the new economy, the HRD climate is a matter of serious concern in Indian public sector organizations.

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