



EMPLOYEE RETENTION IN THE OIL AND GAS SECTOR: A REVIEW OF EXISTING LITERATURE

Praveen Agrawal* & Artee Aggrawal**

arteepraveen@yahoo.com, artee.aggrawal@gmail.com

*Geo physicist at Asian Oil, **Assistant Professor at Amity University, Mumbai

Introduction

Contemporary human resource management has been changed from its traditional perspectives till nowadays. In the past, companies have not been disposed to human resource management, but to personnel management, which just included administrative practices regarding their employees. On the other hand, companies' exposure to constant changes compelled them to develop the scope of its departments in order to achieve greater organisational success, which resulted with human resource departments. Companies, today, are aware of the fact that among all sets of assets, the "soft" one, meaning human resources, represent the key factor for organisational success. Many authors (Becker, Huselid and Ulrich, 2001; Huselid, 1995; and Ichinowski, Shaw and Prensushi, 1997) showed that human resource practices have strong and positive impact on financial and productivity performance of different companies. In order to use all the benefits from different human resource practices, there is evident and required investment in human resources (individual growth and human resource development), which will finally end up with development and increasing organisational performance.

Oil consumption in India is estimated to reach 4 million barrels per day (MMbpd) by FY16. The oil and gas industry has been instrumental in fuelling the rapid growth of the Indian economy. The oil and gas sector is one of the six core industries in India. It is of strategic importance and plays a pivotal role in influencing decisions across other important spheres of the economy. The oil and gas industry is usually divided into three



major sectors: **upstream**, midstream and downstream. The upstream oil sector is also commonly known as the exploration and production (E&P) sector. The upstream segment comprises exploration and production (E&P) activities.

The downstream segment comprises the refining and production of petroleum products, processing, storage, marketing and the transportation of commodities such as crude oil and natural gas.

Presently 40 companies are participating in the upstream E&P activities in India, of which 23 are actually operating. A survey released today by CSC reveals that professionals in the upstream oil and gas industry are discovering that the vast amounts of data made available in the “digital oilfield” present another set of challenges in effectively deploying, managing and operating upstream assets.

The large increase in available technical, operational and financial data presents challenges in governance, collaboration, data management and operational processes. These significant investments in collecting data from operational assets, business systems and field seismology were intended to speed improved decision making, but results have been mixed and new problems have arisen. Respondents indicate that these problems stem from a lack of effective collaboration between key disciplines, as well as poorly designed business processes and organizational resistance. Of the survey respondents, 38 percent believe that the most common cause of these breakdowns is poorly designed or misunderstood workflows. Nearly a quarter of respondents feel that as much as 75 percent of their company’s most important information is siloed in application specific files and databases, and not generally available to cross-discipline users. Half of respondents believe that this difficult-to-access data constitutes as much as 25 percent of the company’s most valuable resource — information and knowledge.

Though this issue is more critical in the western countries as they face the problem of an aging workforce, the human capital deficit is a major challenge for the industry in



general. In order to remain competitive, it is imperative that companies strengthen their scientific, engineering and project- management skills by hiring and retaining skilled employees.

HR management in oil sector involves effective management of personnel, employee engagement, motivation of the employees and providing due recognition to the employees working in this industry so that they get job satisfaction and could be retained in the company. India's oil and gas sector is likely to require around 25,000 additional professionals in the next five years due to business growth and retirement or attrition in the sector. This is equivalent to around 48% of the current employee strength. The upstream sector is expected to see the maximum shortfall, with a requirement for around 7,600 employees in the next five years on account of high attrition and retirement. 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.

Objective of the Paper

Talent shortage has become a critical challenge for the oil and gas industry in India. The objectives of the present research is to-

- To study the challenges in the HR management in E & P sector in India.
- To conduct an extensive review of literature to understand the various factors contributes in HR retention in E & P sector.



- To suggest the measures to increase the job satisfaction among E & P personnel thereby leading to high retention in the companies.

Research Methodology: Various building blocks of the research work are as under:

Nature of Research: The present research is qualitative in nature as it explores the existing literature related to the factors affecting employee retention in oil and gas sector in India.

Data Collection: Since the nature of research is qualitative, the data for factors affecting employee retention in oil and gas sector in India will be collected mainly from government websites and various research papers on the present topic.

Analysis Scheme: Various themes from the data would be extracted for the purpose of deeper understanding of the subject.

Literature Review

For the purpose of understanding the existing themes related to employee retention in India, peer reviewed papers from the various journals and government reports are thoroughly studies so as to have a deeper understanding of the issue. In all 20 papers were reviewed. The underlined themes are :-

Richards, Eric L (1987) in his paper states that gasoline is a real concern in the lives of most Americans. Up- ward spiraling prices, shortages, and long lines at the gas pump have clearly illustrated to each of us the integral part played by this precious fuel in modern society. Since the initial shortages of 1973-74 the average citizen has finally begun to glimpse the realities of a future when energy demand far exceeds the available supply.

According to **Terry Morehead Dworkin (1917)** employer efforts to control employees' off-the-job activities are increasing. Courts should adopt a reasonable business necessity



standard that requires the employer to show a detrimental business connection between the off-the-job activities and a legitimate business interest.

Nwogugu, Michael (2005) in his paper analyses the economic, legal and strategic impact of the Internet and ongoing industry restructuring on the US retail real estate sector. Appropriate strategies for developers, investors and retailing companies are explained in the article. The article's contributions to management theory, law and economics is in: a) improving the understanding of the analysis of structural long-term changes in large industries, b) showing the relationships and dependencies among strategy, change management and regulation, c) raising questions about the standard models of industry competition in which forward-integration and backward-integration are deemed absolutely necessary and natural in certain conditions (in this instance, the opposite applies), and in which competition is based primarily on price or product differentiation (in this instance, competition is based on other factors), d) showing why the standard method of analysis of antitrust and competition for regulatory purposes (industry concentration) may not be accurate in certain circumstances, e) analyzing the strategic use of real estate - this has not been covered adequately in many management articles even though real estate constitutes a substantial portion of assets and expenses in many industries such as retailing, healthcare, power, manufacturing, and hospitality, f) introducing new models/theories of competition, change and industry structure, g) explaining the effect of regulatory structures on change, industry dynamics and firm performance.

Kumar, Rajesh and Markeset, Tore (2007) in their paper presented a framework for the development of performance-based service strategies for the oil and gas industry in Norway. The framework considers various influencing factors and their attributes, as well as performance factors categorized as critical success factors, performance killers and cost drivers. A case study has been conducted to map current practices, to validate the influencing factor attributes, and to suggest performance factors. Data have been collected through an e-mail questionnaire, face-to-face interviews, available documents



from the industry and a literature survey. Operators of complex oil and gas production facilities are becoming increasingly dependent on service providers to support their efforts to perform according to demands. When developing a performance-based service strategy one needs to consider influencing factors and attributes. Furthermore, one needs to measure the service delivery process performance and the gaps between required and delivered services, and to periodically reassess the service strategy influencing factors. The research is based on a case study in the Norwegian oil and gas industry, but the results can be adapted for other industries as well.

Edwards, John S (2008) examined the state of knowledge management (KM) in the energy sector. The paper reviews the literature on KM and the practice of KM as relevant to the energy sector.

Tantoush, J O; Lettice, F; Chan, H K (2009) in their paper explored buyer-supplier relationships in the Libyan oil industry during and following the sanction era. This paper, utilized four largely validated critical relationship parameters. Desk research is undertaken to explore the selected themes of trust, co-operation, commitment and communication, which are critical to effective dyadic buyer-supplier relationships. Subsequently, in-depth interviews were conducted with five key personnel of five Libyan oil companies to examine the impact of sanctions on the selected themes in relation to their buyer-supplier relationships. The results highlighted interesting differentials between the two explored areas in relation to the four selected themes: trust, co-operation, commitment and communication. The results indicate that there is a significant gap in understanding the impact of sanctions on the buyer-supplier relationship.

Safdar, Rehman et.all. (2010) in their paper developed a relationship between HRM practices like job analysis and employee Job performance. This paper, based on a study of employees of Pakistan Public sector regulatory authorities of telecommunication, oil and gas, power, media, security exchange, banking sector and organizations being regulated by these authorities is an attempt to develop and test a hypothesized model linking HR importance of job analysis with employee job performance. Survey results of



568 employees indicated that practice of job analysis was strongly related to employee job performance. The findings suggest that an organisation-wide policy of job analysis is an important source of competitive advantage in its own right, and requires due attention of HR professionals. The study extends the findings of the HR-employee job performance research pursued in Western countries to a non-Western context.

Murphy, Matthew & Arenas, Daniel (2010) in their article argues that considering cross-sector collaborations through the lens of indigenous-corporate engagements yields a more comprehensive understanding of the range of cross-sector engagement types, emphasizes the importance of cross-cultural bridge building which has received little attention in the literature and highlights the potential for innovation via collaborations with fringe stakeholders. The study offers a more overarching typology of cross-sector collaborations and, building on an ethical approach to sustainable development with indigenous peoples. It proposes a theoretical framework for cross-cultural bridge building between businesses and fringe stakeholders. By incorporating this framework into the literature on value creation in cross-sector collaborations, study suggested a model for value creation in cross-sector collaborations with fringe stakeholders.

Losman, Donald L (2010) examined the micro-economic, financial, and managerial behavior of national oil companies, assesses their economic efficiency, and relates their operations to rentier state politics.

Dhiman, Giri Raj & Mohanty R.P. (2010) in their paper presented a study, which examines the relationship between Human Resource Management (HRM) practices, attitudinal outcomes and turnover intent in oil and gas exploration and production sector in India. Results indicate that significant relationship exists between HRM practices, affective organizational commitment, employee satisfaction and turnover intent. All HRM practices and attitudinal outcomes have significant negative relationship with turnover intent. Further, it establishes that affective commitment and employee satisfaction partially mediate the relationship between HRM practices and turnover intent. The study has a number of important implications for HRM interventions.



Muller, Alan & Kräussl, Roman (2011) in their paper extended the contingency perspective using a "sensegiving" lens, by which external actors' interpretations of organizational actions may be influenced by the way in which the organization communicates about those actions. They considered how sense-giving features in philanthropy-related press releases affect whether investors value those donation decisions. For the empirical investigation in this study, they analyzed abnormal returns to announcements by U.S. Fortune 500 firms documenting their donations to Hurricane Katrina disaster relief in 2005. The study suggest that announcements emphasizing employee involvement in the donation send investors positive signals about the firm's ability to bounce back from the disaster's adverse effects.

Bairi, Jayachandra & Manohar, B Murali (2011) in their paper identified the critical success factors in gaining user customer satisfaction in IT outsourced services and find how it helps in the competitive advantage and customer retention for the service provider. Improving the service quality and customer satisfaction of outsourced IT service is the main rationale behind pursuing this research. Three firms were selected for studying primarily because a large part of their IT support work is outsourced to multiple vendors and support work is carried out, both on site and offshore. A structured, open-ended interview was conducted because of the exploratory nature of this case study. The primary data were collected through face-to-face interviews, with 12 senior managers. Extensive secondary data were provided by the interviewees. The paper provided evidence that by following critical success factors there are few expected outcomes to client and service provider organizations, like user satisfaction for the client, and competitive advantage and customer retention in IT service-providing organizations. As evident from the interview with the three companies, from their experience over the years of outsourcing the IT services, the service providers are able to sustain better employee retention. Customers have seen improved employee attitude and morale, increased productivity of the service provider, which resulted in reduced costs to customers over



the years. The findings were based solely on oil and gas organizations from North America and UK.

Abdifatah Ahmed Haji & Sanni Mubaraq (2012) in their paper longitudinally examined the intellectual capital (IC) disclosure practices of Nigerian banks following the restructuring exercise and the subsequent policy changes in the Banking sector. **Paul Iles , Almhedie, Abdoul & Yehuda (2012)** in their paper conceptualized the case for uniqueness of the Middle East and discussed how managerial processes are influenced by the prevailing culture. They applied a case study to support the arguments. They believed that there are significant implications that this paper has brought, in particular, practical implications at both organizational and national levels. The value of the paper is in providing an open view of management in the Middle East (ME), and its implications for decision making at organizational and national levels.

Manohar, B, Kumar, & C H Vijaya (2012) in their paper talked about green transportation. Transportation plays the role of a recognized value for the exchange of commodities and services. Transportation is an essential part of human activity, and in many ways form the basis of all socio-economic interactions. Indeed, no two locations will interact effectively without a viable means of movement. In many developing countries, inadequate transport facilities are often the norm rather than the exception. Thus, a good transport system is essential to support economic growth and development. Green Transport refers to any means of transport with low impact on the environment, and includes non-motorised transport, i.e. walking and cycling, transit oriented development, green vehicles, Car Sharing, and building or protecting urban transport systems that are fuel-efficient, space-saving and promote healthy lifestyles.

Bairi, Jayachandr, Manohar, B Murali; Kundu, Goutam Kumar. (2013) in their paper provided an understanding of the major critical success factors involved in knowledge acquisition from an aging oil and gas workforce by outsourced service providers and find the outcome. The authors shortlisted two outsourced firms for studying, primarily because they deliver lots of service support work to oil and gas firms.



For the exploratory nature of this case study, a structured, open-ended interview was conducted. Through face-to-face interviews with 12 senior managers, primary data were collected. Upon content analysis of data collected, the framework was evaluated. The results of this study indicate that both client and service providers can benefit by following major critical success factors for knowledge acquisition. From the open-ended interview with the two companies, it can be concluded that the service providers are able to grow their technical and domain capability through knowledge acquisition from ageing workforce and reduce the cost to client.

Grant, Robert M (2013) conducted the study pointed to the challenges of converting tacit into explicit knowledge and the importance of knowledge management initiatives that combined the enthusiasm of bottom-up initiatives with strong top-down support from senior management.

Ranjbarfard, Mina; Aghdasi, Mohammad; López-Sáez, Pedro; Emilio Navas López, José. (2014) discussed about the barriers of the four knowledge management (KM) processes including generation, storage, distribution and application in the gas and petroleum sector. Reviewing the literature of KM and organizational learning, this paper extracted all of the barriers which impede KM processes. Then it designed a questionnaire for validating, ranking and categorizing barriers. Totally, 190 completed questionnaires were gathered from 26 gas and petroleum companies in Iran. Some statistical tests such as T, Friedman, Kruskal-Wallis and Mann-Whitney were used for analyzing data. Findings reviewed the current literature of KM barriers, validated and ranked the barriers of knowledge generation, storage, distribution and application separately. The importance of knowledge generation and knowledge application barriers were significantly different between gas and petroleum companies.

Wolfgang Thurner, Thomas; Zaichenko, Stanislav (2014) in their paper studied knowledge transfer from Research and Technology Organizations (RTOs) into primary sector producers. The authors inquire which of these RTOs are successfully competing for public funding, and how these funds are used. Also, the authors study what makes an



RTO more (financially) successful in technology transfer than their peers and which RTOs transferred technology that was new to the Russian market.

Alt, E., Díez-de-castro, E. P., & Lloréns-montes, F. J. (2015) Drawing on the natural-resource-based view (NRBV), proposed that employee stakeholder integration is linked to environmental performance through firms' proactive environmental strategies, and that this link is contingent on shared vision. They tested their model with a cross-country and multi-industry sample. In support of theory, results revealed that firms' proactive environmental strategies translated employee stakeholder integration into environmental performance. This relationship was pronounced for high levels of shared vision. Findings demonstrated that shared vision represents a key condition for advancing the corporate greening agenda through proactive environmental strategies.

Conclusion from Existing Literature

The above mentioned literature review provide a comprehensive understanding of the topic. Existing academic institutes are not sufficient to ensure industry stability in terms of manpower supply. The gap between the demand for trained manpower and its supply is widening annually. Some of the key issues include an aging workforce, retirement, attrition, and talent acquisition and supply. There is a need of a study to understand the HR strategies of the companies in the E & P sector of India and to suggest the framework to create retention in the companies.

LIMITATIONS OF THE STUDY:

The present study is constrained by geographical limitation, cost and time constraints and above all the individual capacity of the researcher. The results of the present research are based on review of studies from employees of E & P sector. The researcher has taken due care to minimize the adverse impact of these constraints on the outcome of research.



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