

Learning Organizations in Action: Evidence from the Downstream Hydrocarbon Industry in India

Ashok K Sar

School of Management, KIIT University Bhubaneswar, India
aksar@ksom.ac.in

ABSTRACT

The objective of this study is to investigate the dynamics of organization development in the Indian downstream hydrocarbon industry. The qualitative approach adopted, allows author to understand better all the dynamics, challenges and complexities that characterize companies facing change. The author used public information, internet resources, in-house journals and companies' document to gather necessary information. In building a learning organization, organizations go through specific development stages: "(a) knowledge acquisition, (b) knowledge sharing, and (c) knowledge utilization". Six dimensions influence these three stages: (a) culture in organizations, (b) empowerment and leadership, (c) communication dynamics, (d) knowledge transfer, (e) employee quality, and (f) capability upgrading. If other case studies confirm or improve upon the author's suggestions, useful guidelines could arise for companies dealing with change management. This paper shows how three highly bureaucratic companies have built learning organizations to manage change effectively.

Key words: Learning organization; change readiness; hydrocarbon sector; knowledge management.

Indian Downstream Hydrocarbon Industry

Historically, the industry has been fully regulated by the government through respective bodies with prices set under an administered pricing mechanism (APM), and assured 12% return on net worth post-tax (Dey, 2001). As a part of the ongoing economic reforms, the Indian government was actively pursuing privatization of the public sector organizations. There was a

clear message from the government that all public sector organizations should have a business orientation irrespective of the social obligations. In 1995, Sundararajan Committee Report: 'Hydrocarbon-2010' was published. It suggested dismantling the APM for the Indian oil and gas sector (Kazmi, 2008).

In 1998 APM was partially

dismantled and was expected to be removed by 2002 (Jeyavelu, 2006). The government control on distribution and marketing was also expected to be relaxed by 2002. This also did not happen. Although it did not happen till 2013 for various reasons, the sense of competition has come into the oil marketing scenario in a big way.

The partial deregulation of the Indian downstream hydrocarbon sector thus brought opportunities to win: oil companies could create and capture opportunities in several product market segments and earn returns far more than the assured return under the APM (Personal, Archive, & Bandyopadhyay, 2010). They were no more bound by the cost plus pricing in these product markets and had opportunity to design strategies to get into value added products or services and charge premium.

Mr. U Sunderajan, the CEO of Bharat Petroleum Corporation Limited (BPCL) provided the key drive for organisation change in the industry in the nineties (Bharat Petroleum, 2000). The public sector status and the assured rate of return on investment under the APM kept the industry in a state of inertia. His two trusted lieutenants - directors during the change management process in the late 1990s - became CEO's of the other two oil companies. Mr. M.B. Lall became CEO of Hindustan Petroleum Corporation Limited (HPCL) in 2002 and Mr. S. Behuria became CEO of Indian Oil Corporation Limited (IOCL) in 2004. The

change initiatives in the other two companies reflect the basic philosophy of trying to build organizations characterised as learning.

Learning Organization (LO) Concepts

There have been a number of approaches to define Learning Organization (LO). Senge (1990), popularized the LO concept in his book *The Fifth Discipline*. Senge emphasizes expanding organizational capability through “system thinking, personal mastery, mental models, shared vision and team learning”. Garvin (1993) highlights LOs as “having the capability for problem solving, experimentation, learning from past experience, learning from the best practices of others, and quick and efficient transfer of knowledge”. Goh (1998) identifies LOs as “possessing certain strategic building blocks, such as shared leadership and involvement, teamwork and cooperation, transfer of knowledge across organizational boundaries and an Emphasis on mission and vision”. Bennett and O'Brien (1994) came up with “key factors which have an effect on an organization's ability to learn and change”. Watkins and Golembiewski (1995) emphasize that “a learning organization continuously learns and transforms itself”. Gephart and Marsick (1996) emphasize “an improvement in the organizations' ability to learn, adapt and change for innovation”. “An organization in which Employees are continually acquiring and sharing new knowledge and are willing to

apply that knowledge in making decisions or performing their work is referred to as a learning organization” (Lewis, 2002). “A learning organization is a consciously managed organization with learning as a vital component in its values, visions and goals as well as in its everyday operations and their assessment” (Moilanen, 2005).

Sequential stages of developing into LOs and Dimensions

Based on preceding discussions on the meaning of LOs, such organizations develop capability to learn to manage change thereby create sustainable competitive advantage. Three key stage of development- “a) knowledge acquisition, b) knowledge sharing and c) knowledge utilization” seem to be a feature of such organizations (Crossan, Lane, & White, 1999).

“Knowledge acquisition” refers to the stage in the development of a LO, where learning by members individually as well as cooperatively is reflected- “(a) from past experiences and the best practices of others, (b) from others’ success or failure, (c) from experimentation, and (d) from training and educational activities”. As a result, members in organizations obtain knowledge from continuous learning.

Once members in an organization acquire knowledge, it must benefit the organization in achieving its purpose. The next step in LO development – “knowledge sharing” helps the organization too benefit from the acquired knowledge as the knowledge is then shared with other

employees and other external stakeholders like customers, suppliers, service-providers and complementors. The process of sharing knowledge can start simple with one-to-one sharing and become very complex with many-to-many sharing.

The third step – “knowledge utilization” is the ultimate means to manage change to achieve the purpose of the organization. In this step, internally as well as externally acquired and shared knowledge is managed to benefit from opportunities arising from the external environment as well meet environmental challenges. It also becomes a means to create and capture opportunities through creativity and innovation.

Knowledge Acquisition

The key to acquire knowledge is to appreciate the location of learning activities. These can be at three points, (a) individual level learning, (b) team level learning and (c) organization level learning.

Individual level Learning

All three companies studied, have a strong tradition of formal as well as informal learning activities. Most of the new recruits join the companies at the entry level either in management or non-management category of employees, with on-boarding programs, hence the importance of learning the technical as well as behavioral skills. The strong motivation and incentives are reflected in the link between performance and training and development initiatives. The knowledge

acquisition happens at the formal level through year-long management development programs, short-term skill development programs and the executive development program at leading national institutes. All three companies have had a systematic training and development calendar for all employees. At the informal level learning takes place through planned rotation of work assignments. Cross functional lateral transfers happen on a regular basis considering potential in prospective employees. To summarize, it is clear that the companies encourage knowledge acquisition as an essential characteristic, especially the integrated approaches comprising of formal as well as informal learning activities and review of performance with focus of possible knowledge shortfalls which serves as key feedback to the know acquisition process.

Team level learning

During the last five years there has been significant change in the modes of communication creating greater opportunities to learn in team by; (b) freely-shared information; (c) an atmosphere of trust; and (d) a supportive relationship between members and co-operative planning". During 1997-2003 all three companies have been restructured from a purely functional structure to structures capturing customer based strategic business units. One key highlight of the new structure is the decisions based on teams rather than individual positions. The team learning has been particularly significant at

learning from the experience of being members of multiple teams and from the communication between teams in all three companies. Going a step forward, the team interactions also involve external members such as suppliers, customers and competitors. For example there are common forums like state level committees, the monthly regional sales review forum and the monthly performance review forum associating the government (MOP&NG, 2013).

Organizational Level Learning

The institutional mechanism in place in the companies clearly indicate development of norms driven by strong cultures that have enabled people and teams to share knowledge openly leading to greater levels of effectiveness in a relative dynamic business environment. For example, in BPCL and HPCL, the performance management system is partly based on balanced scorecard, where "learning and growth" perspectives drive most of initiatives at the corporate level, strategic business unit (SBU), team and individual levels (BPCL, 2013). This also a reflection a strong structure, systems and processes base mirroring an appropriate culture forming a strong base to facilitate organizational level learning.

Learning Sources

While the companies under the study have realized the importance of the location of learning, they have also realized the significance of the learning sources,

specifically, interaction with employees, customers or clients, vendors, suppliers and competitors. Some key evidence and practices are explained in the following section.

Employees

Employees have been found to sharpen their analytical as well as creative problem solving capabilities with greater appreciation of interdependency among team members. For instance, at HPCL, a difference in authority and responsibility is built into the system which enables employees to cooperate (HPCL, 2013). Employees as a source of learning, is primarily directed towards individual learning. This individual level learning extends to team learning, when employees are grouped with superordinate goals with a strong motivation for sharing knowledge among members of the group(s). With the appropriate norms in the studied organizations, learning appears to have taken place at the organizational level. From the above arguments, it is evident that Employees constitute an important source of learning at all levels of the organization in three companies.

Customers

Today in a deregulated business environment, meeting customers' expectation has been the key to success. This is reflected in the significance of and importance given to the "customer perspective" in balanced scorecard in BPCL (BPCL, 2014). IOCL and HPCL

use a slightly different variant of this perspective in their business planning. Further some form of Customer Relationship Management (CRM) has been in operation in all the companies capturing various dimensions of service quality. Mystery customer audits are carried out in regular interval to assess the service quality gaps giving vital input for further action. To summarize, there is very clear evidence in the three companies about learning customer needs.

Competitors

Competition is one of the main sources of knowledge acquisition for productivity and innovation. All three companies have been found to be aware of any newly developed activities undertaken by rivals. They learnt from what competitors do to beat them. This reflection process provides an organization with the opportunity to turn its weaknesses into strengths, or through cooperation, turn head-to-head competition into collaboration, thus, rivals are an important source of knowledge acquisition for an organization in building up a competitive advantage. There are a number of formal forums at corporate, regional, SBU/ Divisional/ State level where periodic interaction takes place between the employees of the three companies. For example, for developing a new retail network, the industry coordinator at Mumbai interacts with the state level coordinators (Sector & Companies, 2014). Final annual marketing plans are

developed based on the prevailing volume-distance norms. Similar proposals to develop consumer fuel storage and dispensing facilities for industrial consumers are discussed at the state or SBU levels. The monthly regional review meetings and the monthly performance meetings have also been forums to learn about competitors (PPAC - MOP&NG, 2014).

Suppliers and Vendors

Organizations can learn from their suppliers through collaboration. Suppliers or vendors are able to offer knowledge management seminars or conferences to their clients (Arroyo López, Holmen, & de Boer, 2012). For instance, BPCL develops partnerships with its liquefied petroleum gases (LPG) equipment suppliers by giving them training through the corporate training center and requiring them to upgrade production systems (BPCL, 2014). Similarly IOCL has collaborated with its key vendors in the refinery and pipelines division for quality up gradation and inventory management (IOCL, 2008). HPCL has collaborated with lubricants packages manufacturers on just-in-time inventory management (HPCL, 2014). Over all there are systematic vendor relationships management processes that are automated through the enterprise resource planning (ERP) applications.

Continuous Learning

Continuous learning has been supported with experimentation and

allocation of financial resources. The three companies have demonstrated commitments to promote creativity, thereby have multiple opportunities and avenues to learn. Apart from this, the organizational climates have enabled host of opportunities for employees' self-development and a culture where employees seek knowledge. A strong emphasis is placed on learning and skill development, through either formal or informal learning programs. Beyond this emphasis, the companies have created ideas by going outside their boundaries and learning from what other companies do or by benchmarking for development as well as imitation.

Dimensions of learning organization that facilitate knowledge acquisition

Going beyond the identification of learning locations and sources, learning involves culture in organizations, empowerment and leadership, communication dynamics and employee quality (Awasthy & Gupta, 2012). Some key evidence and practices with respect to the three oil companies studied are explained in the following section.

Culture in organizations that facilitate knowledge acquisition

The multi-divisional structure organized into strategic business units; clear set of decision rights and rules and processes driven by meritocracy in the three companies have mirrored a culture facilitating knowledge acquisition. This culture displays itself in several ways.

The organization structure in BPCL is organic in part. There is extensive delegation of decision making authority (BPCL, 2015). Similarly in many of the new strategic initiatives, IOCL realized that the knowledge base for decision making is specialized and can't be transmitted upward to the top management through the hierarchy. This necessitates vertical and horizontal decentralization. Thus the companies have demonstrated the translation of learning to action with a strong capability to learn.

Alongside decision rights and rules capturing – who has the right to take a particular decision and what the decision rule(s) concerning that decision, there are processes in the form of strong network of personal relationships that accompany the flow of work. The companies have thus demonstrated flexibility and adaptability supported by a climate of openness.

The performance management map in BPCL and HPCL for all management employees captures stretched targets. They realize that this is the key means to trap the latent capabilities in people. However the fear of failure could haunt employees. To overcome the fear of failure and leverage the latent capabilities, the performance management map captures limitations to perform and an action plan thereof. This encourages people with decision rights to take risk and develop a strong willingness to learn from past performance including poor performance.

Learning and development are no more support services, but part of key business processes in BPCL, with clear HR scorecards, drawn from the learning and growth perspective of balanced scorecard. Assessment and development center related activities reflect the importance attached to the learning and development processes. This creates an organization climate that support experimentation and continuous development of competencies.

Gone are the days of keeping knowledge secrete from fellow colleagues. It's the era of super ordinate goals and shared values, more evident in a gap between individual responsibility and authority. This is captured in the performance management maps and annual budgets, thus there are boundary-less organizations within which employees' desire to learn and share knowledge has improved greatly.

The career progressions in all three companies studied are driven by a transparent process. Particularly in BPCL, there is a high weightage for the performance domain and potential domain concerning learning and growth. For instance, if an employee meets the learning and growth related targets, there is a clear reflection in the overall performance and potential score, thus there are rewards for members or teams who continuously learn and share knowledge with others.

Empowerment and leadership that facilitate knowledge acquisition

Leadership empowerment issues have begun taking a peculiar shape in BPCL following the restructuring during 1998 - 2000. A concept of visionary leadership, where the co-created shared vision leads, has come to be the dominant theme. This has been institutionalized across the length and breadth of the organization through the Foundation on Learning (FOL) and Visionary Leadership Program (VLP). The role of employees in top and senior managerial positions has been limited to facilitating the functioning of teams. The new set of governance councils comprising of the board, apex council, executive council, and management council have been the structural evidence of the profile of leadership and empowerment, thus, leaders have been able to play a vital role in process of building LO: “(a) they design organizational policy and strategy; (b) they are role models for employee learning and continuous improvement; (c) they actively encourage and experiment; (d) they encourage leadership skills at all levels; and (e) encourage empowerment in their organization”. A similar reorientation profile has been observed in HPCL after the roll out of the ERP application.

Communication Dynamics that facilitates knowledge acquisition

The realization of the current reality with reference to the importance of knowledge base in decision making in BPCL during the restructuring exercise has given way to a host of informal communication channels and medium. The highlight has been to appreciate the position of the knowledge base and delegate decision rights to that position, sub-entity to ensure timely decision making, while ensuring quality of decision making. Such delegation of decision rights has the potential risk of being misused owing to agency problems. The new channels of communication, primarily automated through the SAP application ensures that there is free, open communication and shared with customers, suppliers, competitors and between other members: communication is fast, clear, and focused; communication has entailed a willingness to share ideas; communication has been conducted in a climate of trust; and a blame-free culture in which members feel free to report errors. In this way, members in BPCL have been learning, sharing and utilizing knowledge over time.

Employee quality that facilitate knowledge acquisition

The oil companies in the study - IOCL, HPCL and BPCL have a rigorous

¹⁹ Indian Institute of Technology

²⁰ National Institute of Technology

²¹ Indian Institute of Management

²² Xavier Labour Relations Institute

human resource policy which emphasizes planning, recruitment and selection processes to ensure quality input, which fit the organization. As a result they recruit the best candidates from premier technology schools like IITs¹ and NIT²s as well as premier business schools like the IIMs³ and XLRI⁴. As a result the companies have: “(a) the ability to learn; (b) shared leadership and coaching behavior; (c) ability in teamwork, (d) creative workplace problem solving and innovation; (e) develop a strong commitment to generating and transferring new knowledge and technology; (f) develop a commitment to lifelong learning; (g) gain knowledge and understanding of how their jobs are important and contribute to organizational goals; and (h) a strong commitment to the mission and vision of the organization”.

Dimensions of learning organization that facilitate knowledge sharing

In BPCL, leading from the perspective of super- ordinate goals or shared values, the importance of knowledge sharing has been highlighted in the premises to the performance management map (BPCL_HRI, 2014). It is clear from the associated documents that without knowledge sharing, the knowledge base may not be useful. Further, sharing ensures upgrading and updating the inventory of the knowledge base. The sharing has been operationalized in part by disseminating valuable

information. Employees learn from this dissemination of knowledge within organizations, as well as that transmitted from other entities. The next section discusses how knowledge has been shared in the three companies.

Culture in organizations that facilitate knowledge sharing:

Shared-mindset-which includes shared vision, value, communication and information-has been a key outcome of the restructuring processes in all the three oil companies. Particularly, in BPCL, the entire gamut of activities relating to strategy formulation and management and performance management starts from the co-created shared vision (BPCL_Vision, 2012). Similarly, in HPCL and IOCL the rolling business plans reflect the shared mindset.

A review of the in-house journals²³ of the three companies reveal of a norm of open communication, which is reflected in sharing of errors, acceptance of conflicts and collaborative efforts to solve problems. With a view to make business transactions transparent, IOCL implemented an integrity pact through a Memorandum of Understanding (MOU) with “Transparency International India (TII)” in January 2008. IOC’s belief in maintaining transparency in dealing with stakeholders is based on its assumptions that in a complex and dynamic multiproduct multi-location environment require a reflection of fairness.

²³ BPCL INFOLINE, IOCL Publications & HPCL Employee Portal

HPCL initiated a process of organizational development called Project-“Achieving Continuous Excellence (ACE)” (14Ma). It project aimed to transform HPCL from a conventional functional organization to a more customer driven organization. The key means of the transformation was a strong moral culture with a focus on learning and growth. The co-creation of a strategic direction was one of the early outcomes, which paved the way for further development. This has necessitated development of a culture of lifelong learning, and a boundary-less environment. The development thereof has been possible owing to the e-learning portal in place, with interactive e-learning modules on technical, functional and behavioral aspects.

Use of learning and development consistently as a means to win in the market place has been recognized, which is reflected in the “BML Munjal Award for Excellence in Learning and Development” (IOCL_BMLMA, 2014). The evaluators for the award, had very high appreciation of the general management programs for all levels of management, a deviation from the conventional logic where such programs were primarily for senior and top management. In the acceptance speech, the CEO, reflected his belief that a strong HRD along with a robust business strategy is an important foundation for success (14Ma1). He further mentioned that the associated initiatives would enhance the company image as a portfolio of competencies as opposed to the

conventional logic of seeing the company as a portfolio of businesses. This exemplifies an environment culture in which employees feel confident in sharing knowledge with each other and the culture of teamwork, collaboration and trust.

Empowerment and leadership that facilitate knowledge sharing:

The performance management systems put in place in the balanced scorecard format capture the four perspectives-“financial, customer, internal processes and learning and growth” in BPCL and HPCL. It has facilitated the leaders’ commitment to the achievement of knowledge sharing related objectives. Their actions have shaped organizational structure, decision-making processes and emphasized teamwork.

In BPCL, the CEO was involved throughout the restructuring process. He communicated his support to the change activities by personal involvement, and regular appreciation to the change management team and the special task forces. He played the role of a mentor to the team members. He also interacted with a large number of employees during the visioning, assessment and implementation stages. Young managers recount stories of his support to the change team, where he gave total freedom to come up with creative ideas and safe guarded them from backlashes from established constituencies. This exemplifies a leader being a role model in knowledge sharing activities including inspiring leadership at

all levels, both management and non-management. This further exemplifies a leader encouraging members to learn as well as inspiring a clear, shared sense of team work and empowerment within an organization.

The co-created shared vision set by the CEO, Mr. U Sunderajan during the process of restructuring BPCL, demonstrates his commitment to learning and to creating a learning organization. These companies have business operations in multiple product markets. The corporate role in all three companies reflects the ability to control the operations of SBUs and to seek coherence in business operation so that the inventory of resources and capabilities are upgraded and updated. Leaders have been able to design organizational policy, create strategies that integrated vision, value and purpose. Further, leaders have been able to inculcate a sense of purpose in minds of employees at large, encouraging team work and risk taking.

Post-restructuring, the business planning has been a bottom-up approach with a set of strategic directions from the strategic apex. This has been driven by the balanced scorecard based performance management system for all managerial employees. This has resulted in giving opportunity to the teams to set their goals under the overall strategic direction of the corporation. Leaders have thus facilitated employees' self-regulation by finding ways to set goals. Leaders also have helped in individual goal setting and creating a

framework for timely performance feedback.

Communication dynamics that facilitate knowledge sharing:

In 2008, BPCL earned the prestigious Association of Business Communicators of India (ABCI) awards, primarily in the Web Communication category, with the Intranet and Corporate Website Promotions winning the Gold Awards and the e-magazine, Petrozine winning the Silver Award. This encourages communication as a way to enhance knowledge; encourages a chance for all employees to enhance participation and contribution concerning critical activities; create effective communication of vision and purpose to all members; and create communication which is transparent with direct as well indirect stakeholders including the community (BPCL_Awards, 2008).

Communication between management and non-management has been a critical aspect in all the three companies owing to presence of strong trade unions. Over a period of time, all the managements have been able to use the information technology (IT) channels to automate interaction with a view to improve knowledge and insights with the organizations.

Overall the communication practices reflect both formal and informal channels of communication "(a) fast, clear and focused; (b) open and shared; (c) conducted in a climate of trust-a blame free

culture in which members feel free to report error”.

Knowledge transfer that facilitates knowledge sharing

Knowledge transfer can be seen considering the nature of knowledge, which is broadly classified as either tacit or explicit (Crossan, 2016). Tacit knowledge is embedded in individuals. Its transfer requires sophisticated media and context. The perspective of shared vision, performance management based on balanced scorecard and the IT communication infrastructure and channels exemplify the presence of strong media and context for effective tacit knowledge transfer. The organizational hierarchy capturing the formal channels of communication, systems and process exemplify the ability to transfer explicit knowledge which can be codified and documented. Knowledge transfer has been (a) taking place within and across organizational boundaries; (b) circulated from one individual to another; (c) providing opportunities and an information base for members to continue an innovation of products or services and processes; (d) observed by rapid and effective flow of knowledge across hierarchy and stored within an explicit form of organizational memory; (e) distributed through advanced information technology; and (f) ensured by

the positive motivation of organizational members.

Employee quality that facilitates knowledge sharing

All three companies have identical recruitment and selection process. Being companies in the public sector, recruitment and selections are subject to a lot of public scrutiny. Recruitment and selection are conducted in two routes, (a) open recruitment and (b) campus recruitment. A rigorous process consisting of inviting application through public media, scrutiny, tests (both written and oral) is followed for open recruitments. Senior members in teams visit top tier schools of technology and management to recruit technical and management graduates through campus recruitment²⁴. They also recruit Chartered Accountants from various centers of the Institute of Chartered Accountants of India (ICAI). All three companies induct officers at the junior-most level of the management hierarchy (A Grade). The growing number of job application reflect the high quality of talent which the oil companies are able to attract. A systematic on-board training and orientation, job rotation and inter-location transfers throughout the country facilitate planned development of careers and broaden outlook of the talented graduates.

²⁴The process has been done away with since 2014 consequent to result of a court case. Accordingly all recruitments are done through the direct route. The short listing for technical graduates is based on GATE score and the same for management graduates is UGC-NET score.

Career growth is based on the individual performance and contribution to the common goal of sustained growth. Most of the industry's top executives started their careers as officers/ executives in entry level, a testimony to the unlimited opportunities for growth available to the meritorious management staff. This exemplifies collective knowledge, understandings, outlook, image and open minded communication; pledge to produce and transfer first-hand knowledge; interaction and facilitation; and the ability to work in team.

Knowledge Utilization

In the following section, evidence concerning the ability to accumulate knowledge in a location where it can be retrieved easily for application when needed is discussed for the three companies-IOCL, HPCL, and BPCL.

Organizational memory: The key to knowledge utilization is knowledge management and organizational memory. Organizational memory is an implicit and explicit stock of organizational knowledge.

In BPCL, the activities on the learning and growth perspective are very clearly set out supported with due documentation. The input from the assessment and development processes are also set out clearly and documented. There exists a set of systems and processes for storing and using both implicit and explicit knowledge. The processes capturing organizational routines and networks through cluster of professionals support managing implicit

knowledge in particular. Knowledge as a resource base is implanted both in forms and structural routines in all three companies.

Further, in BPCL, the Integrated Information Systems (IIS) team had launched "Project Aryabhata" to redefine knowledge management strategy for BPCL for the next 3 to 5 years. Key themes had been identified, which would help businesses achieve their targets and sustain BPCLs leadership in the knowledge management sphere in the oil and gas sector. One of the first initiatives undertaken was the implementation of the solution to manage the supply chain (SCM) in the LPG business to optimize bulk product movement, product bottling, packed movements and hospitality arrangement with other oil marketing companies. It has resulted in significant savings on cost of inbound and outbound logistics. The project has been completed in a record period of 100 days by an in-house team drawn from the business and IIS with minimum support from external consultants. Since April 2008, the demand projections are being captured in the SCM solution at the distributor level. Based on the demand, planning projection in the system, all orders are getting generated in the SAP system. Again During 2008, a Business Intelligence group was formed for harnessing knowledge for business applications. Dashboards for Territory Managers in the different businesses have since been launched. The focus has been on the knowledge needs of the customer

facing staff. With the active engagement of the businesses, Business Intelligence reports have been designed and made available to the field force, thereby giving deep insights into customer behavior and providing up- to-date data. This exemplifies storage of organizational knowledge in explicit forms such as working guidelines and computerized databanks.

Culture in organizations contributes to knowledge utilization

Over a period of time, a learning culture appears to have developed in the three companies. In BPCL, the retail business has been achieving success through mobilizing people and teaming at various levels, encouraging a culture of focused thinking and decisive action among staff, resorting to new and innovative means of overcoming obstacles in execution of plans. Because of aggressive, marketing of its propositions, the retail business was able to achieve higher growth position in the fuels market with sales of 25.38 MMT during 2015-16, showing an impressive growth of 5.1% over 2014-15. Initiatives in IOCL reflect continuous improvement in operations and maintenance through harnessing inherent strengths of employees. A series of learning and development programs are in place aimed at building critical management skills. The calendar of learning and development activities has been integrated to the work plan of employees at all levels, thereby enhancing the level of commitment for competency development. The

eLearning portal with interactive learning modules have helped HPCL to strengthen the learning culture. The portal receives self-nomination without having to assign employees to learning programs, a reflection of higher level of commitment for competency development.

Empowerment and leadership that facilitate knowledge utilization

The business functioning in BPCL is reflected in the decision rights and rules. For instance, all capital expenditure proposals in a retail territory need to be cleared by the territory team comprising of the territory manager, area sales officer, area engineering officer and the area operations in-charge. Similar team based decision making has been observed in the lubricants business in IOCL. In the retail strategic business unit of BPCL, the role of the regional manager has been limited to facilitating the functioning of the territory teams and managing the interface with other interdependencies. Senior managers now have critical role in fostering use of technology to share knowledge for value creation. With this profile of delegation of decision rights and empowerment of the operating units, the senior managers devote their time to designing business policies that integrate with strategic direction.

Knowledge transfer that contributes to knowledge utilization

All three companies have employed advanced information technology to gain and disseminate organizational knowledge.

For instance the year 2007-08 was eventful and marked with many significant achievements in the IIS domain of BPCL. The year saw a strategic thrust being given to the future IT road map of the organization. Besides, BPCL's internal team has successfully upgraded the SAP HR module to SAP ERP ECC 6.0. The upgrade would help in the implementation of Employee Self Service (ESS)/ Management Self Service (MSS) besides several new age functionalities. Work has commenced on the upgrade of the non-HR modules to ERP ECC 6.0. Once rolled out, the SAP user base will increase significantly and make improved functionalities available. BPCL has also migrated to SAP Net Weaver XI Middleware, which would be the single solution utilized for interfaces with customers, vendors, dealers, distributors and others. This makes organizational knowledge freely available. Knowledge transfer has provided an information base for members so they can engage in product and process innovation making organizational knowledge useful.

Employee quality that facilitates knowledge utilization

In HPCL, more stress has been laid on learning not only to improve the competences of the employees, but also to update their functional skills. The learning programs have a judicious mix of in-house and external input. Employees thus (a) realize their purpose and how their efforts are aligned to organizational goals; (b) develop the skill sets such as

teamwork; (c) create workplace problem solving and innovation competencies; and (d) enabled to lead from whatsoever position they hold. Similarly, in BPCL, employees are enabled to lead from whatsoever position they hold owing to the focus on team based interdependent functioning.

Capability upgrading facilitates knowledge utilization

In BPCL and HPCL, use of a balanced scorecard approach to strategic management and performance management has been the hallmark to capability upgrading with respect to achieving productivity and growth by addressing the issues concerning internal processes and capabilities in particular. Both companies have been able to access capability gaps and have taken timely action to bridge the gaps to achieve substantial productive gains and growth. This is reflected in the strategic map showing a network of cause and effect relationships with the four perspectives-financial, customer, internal process and learning and growth. In IOCL there are similar efforts to benchmark best practices and share the same across business processes.

Conclusion

The analysis of the secondary data in the three companies reveals presence of the significant learning organization characteristics. The three stages of development of learning organizations-“knowledge acquisition; knowledge

sharing; and knowledge utilization”-clearly reflect in the three companies. These three stages are influenced by six dimensions-culture in organizations; empowerment and leadership; communication dynamics; knowledge transfer; employee quality and capability upgrading. The companies have therefore demonstrated the potential to become learning organizations.

References

- Armstrong, H. (2000). The Learning Organization: Changed Means to an Unchanged End. *Organization Speak Out*, 31 (6), 355-361.
- Arroyo López, P., Holmen, E., & de Boer, L. (2012). How do supplier development programs affect suppliers? *Business Process Management Journal*, 18(4), 680–707. <http://doi.org/10.1108/14637151211253792>
- Awasthy, R., & Gupta, R. K. (2012). Dimensions of the learning organization in an Indian context. *International Journal of Emerging Markets*, 7(3), 222–244. <http://doi.org/10.1108/17468801211236956>
- Bennett, J. K., & O'Brien, M. J. (1994). The Building Blocks of Learning Organization. *Training*, 31 (6), 41-49.
- Crossan, M. M., Lane, H. W., & White, R. E. (1999). An Organization Learning Framework: From Intitution to Institution. *Academy of Management Review*, 24 (3), 522-537.
- Evans, F. J. (1998). Effective Leadership Depend upon Six Management Practices. *Business Jornal Serving Frenso and the Central San Joaquin Valey*, 32 (3), 27-32.
- Garvin, D. (1993). Building a learning organization. *Harvard Business Review*, 73(4), 78-91.
- Gephart, M. A., & Marsick, V. J. (1996). 1996. *Training & Development*, 50 (12), 34-44.
- Goh, S. C. (1998). Towards a Learning Organization: The Strategic Building Blocks. *SAM Advanced Management Journal*, 10 (4), 15-20.
- Hedgetts, R. M., Luthans, F., & Lee, S. M. (1994). New Paradigm Organizations: From Total Quality to World-Class. *Organizational Dynamics*, 23 (3), 4-19.
- Hitt, W. D. (1995). The Learning Organization: Some Reflections on Organizational Renewal. *Leadership and Organization Development Journal*, 16 (8), 17-25.
- Jeyavelu, S. (2006). Bharat Petroleum Corporation Ltd (A), 570.
- Lewis, D. (2002). Five years on – the organizational culture saga revisited. *Leadership & Organization Development Journal*, 23(5), 280–287. <http://doi.org/10.1108/01437730210435992>
- Locke, E. A., & Jain, V. K. (1995). Organizational Learning and Continuous Improvement. *The International Journal of Organizational Analysys*, 3 (1), 45-68.

Moilanen, R. (2005). Diagnosing and measuring learning organizations. *The Learning Organization*, 12(1), 71–89. <http://doi.org/10.1108/09696470510574278>

Pedersen, C. R. (1998). Management of Knowledge new IT craze. *Computing Canada*, 24 (27), 19-20.

Personal, M., Archive, R., & Bandyopadhyay, K. R. (2010). Petroleum Pricing in India/ : Transition, (25905).

Sector, P., & Companies, M. (2014). for RO / SKO Dealerships of, (January 2013).

Senge, P. (1990). *The Fifth Discipline*. London: Random House Business Books.

Stambaugh, D. M. (1995). Creating the Learning Organization - An Essential Ingredient for Attainining Customer Loyalty. *CPCU Journal*, 48 (1), 35-49.

Watkins, K. E., & Golembiewski, R. T. (1995). Rethinking Organization Development for the Learning Organization. *The International Journal of Organizational Analysis*, 3 (1), 86-101.

West, I., & Meyer, D. G. (1997). Communicated Knowledge as a Knowledge Foundation. *The International Journal of Organizational Analysis*, 5 (1), 25-58.

