



Measuring organizational learning capability in Indian managers and establishing firm performance linkage

An empirical analysis

Jyotsna Bhatnagar

Management Development Institute, Gurgaon, India

Abstract

Purpose – The purpose of this research is to measure Organizational Learning Capability (OLC) perception in the managers of public, private and multinational organizations and establish the link between OLC and firm performance.

Design/methodology/approach – The data were collected from a sample of 612 managers randomly drawn from Indian industry, using a questionnaire survey.

Findings – Organizational capability perception for the managers of the IT sector and of multinational firms was the highest, while it was lowest for the engineering sector. Mixed results were found for the market indicators of firm performance, i.e. firm's financial turnover and firm's profit as predictors of OLC in Indian organizations, where financial turnover was predicting organizational learning capability.

Research limitations/implications – The research paper does not test the possibility of firm performance affecting OLC, which may be true, and the author acknowledges it as a limitation of the research study. Future studies may investigate this further.

Originality/value – The managers felt that the processes for encouragement of experimentation and environmental scanning needed more attention in Indian industry. The variable of sensitivity to people and their potential provides implications for a rigorous talent management strategy. If adequate attention is paid to this dimension, then it can lead to gaining of competitive advantage, through retention and development of key talent.

Keywords Learning, Company performance, Learning organizations, Managers, India

Paper type Research paper

Introduction

Indian economy in the last decade has seen intense changes in its corporate environment. From the time of independence in 1947 until 1990, the Indian economy was in a regulated regime until the World Bank and the IMF agreed to help on the condition that it changed to a “free market economy” from a regulated regime. To answer the needs of this environment, the government declared a series of economic policies beginning with the devaluation of the Rupee, ensued by a new industrial policy and new fiscal and trade policies. A number of reforms were made in the public sector, in trade and exchange policy, and in the banking sector, and foreign investment was liberalized. Of special importance is the strengthening of the Public Sector, wherein functional autonomy was granted by withdrawing 696 guidelines, issued by the Department of Public Enterprises. Granting freedom to eleven select Public Sectors,



(called the Navratnas) to incur capital expenditure, raise finances and decide on joint ventures and strategic alliances. In the foreign sector several changes were made, for example, automatic approval for foreign investment up to 51 per cent in 35 high priority areas, single and market exchange rate of the rupee, no restrictions on the usage of the foreign brand names and trademarks; foreign companies permitted to open branches in India (Kandula, 2001, and also see special issue of *The Columbia Journal of World Business*, 1994). The reforms have had a positive effect and India is now considered one of the largest emerging nations, having bypassed the Asian economic crisis. The World Bank forecasts that by 2020, India could become the fourth largest economy (Budhwar, 2000).

Corporations require new skills to face the uncertainties of the new environment. It is in this context of the changes brought about by the liberalized Indian Economy, that organizational learning assumes importance in India (Ramnarayan and Bhatnagar, 1993; Shukla, 1997). As has happened globally, Indian industry is realizing that technology, IT infrastructure, large-scale operations and capital are “entry criteria” and not competitive tools anymore. The competitive edge will come from a company’s ability to innovate, create and use the entrepreneurial energies of its people. Organizational members would be required to be more in the “not our way of doing things” mode. This requires coming to terms with the new environment, accepting the shortcomings in organizational practices and coming up with fundamentally different standards, norms relationships . . . priorities (Nilakant and Ramnarayan, 1998). With this context, the challenges for organizational learning and a capability perspective becomes an exciting area of research in Indian Industrial setting.

This study is based on the earlier work of Ramnarayan, carried out at different points between 1992-1997, in the Indian industrial context, which was immediately after the liberalization of the economic reforms. These studies explored the nature of organizational learning in the Indian Organizations, their main characteristics and the challenges the organizations were facing, due to liberalization of the Indian Economy. Ramnarayan and Bhatnagar (1993), based on the Indian industrial setting of liberalization of the economy, carried out a series of studies on identifying enablers and inhibitors to organizational learning as against a radical change in the environment. These provided the measures on which this study is based (refer to Table I).

In those years the Indian organizations were closed to competition and had been operating in very safe and stable environments, so whatever learning was taking place was at the single loop level. However, with liberalization, the organizations were facing the challenge of globalization, diversification, technology acquisition, introduction to new systems and professional culture, greater power sharing and participative management, and there was a need to move on to double loop learning. The liberalization of the economy, and the extra competition from overseas firms, has put considerable pressure on the personnel function of Indian domestic companies to prepare and develop their employees. The foreign operators in India are known to have better skilled human resources, and are more efficient and effective (for more details see Budhwar and Khatri, 2001; Krishna and Monappa, 1994; Sparrow and Budhwar, 1997; Venkata Ratnam, 1995). The Indian HRM departments are under severe pressure to bring about large-scale professionalized changes in their organizations in order to cope with the challenges brought about by economic liberalization (Rao *et al.*, 2001; Som, 2002). There has been evidence of a general need among the managerial cadre to

Blocks to learning in Indian organizations (Ramnarayan and Bhatnagar, 1993; Ramnarayan <i>et al.</i> , 1993)	Learning challenge resultant in developing learning capability <i>n</i> = 1, 686 Indian Managers	Theoretical support
Functional myopia	1. Clear focus on objectives and plans for internal integration 1.1 Clear focus on objectives 1.2 Attention to integration and among departments and functions 1.3 Attention to vertical integration	Systems perspective in shared vision (Senge, 1990a) Systems thinking (Stata, 1989; Senge, 1990b; Leonard-Barton, 1992) Systemic thinking (McGill <i>et al.</i> , 1992) Systems perspective (Nevis <i>et al.</i> , 1995) Clarity of purpose and mission (Goh and Richards, 1997) Systems orientation (Hult and Ferrell, 1997)
Command and control orientation	2. Sensitivity to people potential and needs	Facilitative leadership (Slater and Narver, 1995) Shared priorities and values (O'Brien, 1990) Team learning (Senge, 1990b)
Preoccupation with day to day routines	3. Concern for long-term planning and success	Conscious efforts to development of latent or intangible efforts (Itam, 1987) Integration of internal knowledge (Leonard-Barton, 1992)
Excessive formalization	4. Support for experimentation and creativity	Creativity requires deliberate and temporary relaxation of rules (March, 1971) Openness and experimentation, Openness to new ideas (Stata, 1989)
Insufficient external orientation	5. Environmental scanning	Openness and creativity (McGill <i>et al.</i> , 1992) Absorptive capacity (Cohen and Levinthal, 1990) Environmental responses are interpreted by individuals who learn by updating their beliefs about cause-effect relationships (Lee, 1992)
Lack of urge for change	6. Concern for development of capabilities	Processing of information, Huber (1991) Old success does not lead to success in the future (DeGeus, 1988; McGill <i>et al.</i> , 1994; Nonaka, 1994; Nonaka and Takeuchi, 1995; Slater and Narver, 1995; Naman and Slevin, 1993) Continuous learning and experimentation culture (McGill <i>et al.</i> , 1994) Experimentation and learning from past experience and from others (Garvin, 1993) Continuous experimentation and learning from past situations (Slocum <i>et al.</i> , 1994)

Table I.
Theoretical framework of the development of the questionnaire based on inhibitors to the learning process in Indian organizations

Source: Ramnarayan, 1996

build capabilities, resources, competencies, strategies to respond proactively to the environmental pressures caused by economic liberalization. Thus mapping the organizational learning capability of the Indian managers, from a Strategic HRM perspective becomes imperative in this context.

The current study has the broad objectives to:

- (1) find the managerial perception of the organizational learning capability;
- (2) find whether there is a difference in the perception of managers of public, private and multinational sectors (ownership based), on one hand and managers of various industrial sectors(technology based), on the other hand;
- (3) find the linkages between the organizational learning capability and firm performance indicators; and
- (4) let us look at the theoretical framework of organizational learning and organizational learning capability which leads to the development of the hypotheses.

Theoretical framework

During the last decade, the learning organization has become the aphorism in the field of organizational change and development. It continues to be of increasing interest in the present decade, as evidenced by the volume of literature devoted to the topic (Senge, 1990a, 1990b; Argyris and Schön, 1996; Pedler *et al.*, 1997; Elkjaer, 2001; Ayas and Zeniuk, 2001; Salisbury, 2001).

Theorists have criticized the field and state, while the perspective taken in organizational learning is sometimes a normative one (for example: Bower, 1993; Marquardt and Reynolds, 1994) which presupposes that “something is wrong with organization (Sadler-Smith *et al.*, 1999) which do not conform to some ideal state ‘rather than being based on trying to’ understand existing learning capabilities and orientations” (DiBella, 1995). DiBella *et al.* (1996, p. 361), link organizational learning and organizational learning capability, and state that “organizational learning may be increased by building on existing capabilities or developing new ones. . . Organizations can enhance their learning capability through either approach”.

The focus on capabilities can be traced back to Babbage *et al.* (1999) feel, that the notions of capabilities and learning are present in Smith, Babbage or Marshall’s reflections. It can be mapped to Chandler (1977, 1990, 1992), who has considered them to be one of his major themes. In the current times, there has been a slight shift in the field of learning where the focus of organizational learning is on developing “organizational capability”, (Armstrong, 2000; Pettigrew and Whipp, 1991). In contemporary research, learning has emerged, from a strategic perspective, especially the resource based theory of the firm, which emphasizes it as a source of differentiation between firms and as providing value, rarity, imperfect imitability and non-substitutability to its resources. (Grant, 1991; Lei *et al.*, 1996, 1999; Snell *et al.*, 1996). The knowledge residing in human resources constitutes a decisive factor to organizational success and the source of competitive advantage (Pfeffer, 1994; Nonaka, 1994; Storey and Quintas, 2001; Noon and Blyton, 2002). Goh (2003, p. 217), gives the perspective of theorists which have defined learning capability as, “the ability of the organization to implement the appropriate management practices, structures and procedures that facilitate and encourage learning” (Leonard-Barton, 1992; Popper and Lipshitz, 1998; Garvin, 1993; Goh, 1998). The current paper is guided by this set of definitions.

From the above discussion, we can state that Learning capabilities can be intangible and tangible and may include: a strategy; guiding principles about learning; structures;

leadership; accountabilities and roles for learning; systems and processes; organizational learning theories; tools; competencies; resources and core values, feel Nathan *et al.* (1997). An organization has a certain mix of organizational learning capabilities and may evolve to certain generic capabilities, unique to its own culture and national culture context. Thus a measurement criterion in a western culture may not be applicable to the Indian context, and we need to thus look at a specific combination of capabilities.

Dibella *et al.* (1996, p. 372) state that, "Learning capabilities ... are formal and informal processes and structures in place for the acquisition, sharing and utilizing of knowledge and skills ... in organizations. Besides the normative and the developmental perspective, a third position is the capability perspective. Within the organizations there are intrinsic learning capabilities, their manifestations vary across organizations, through distinctive style and patterns of learning". Ulrich *et al.* (1993, p. 60) on the other hand define organizational learning capability as "the capacity of managers within an organization to generate and generalize ideas with impact."

In western literature, Goh and Richards (1997) developed an Organizational survey tool, to measure organizational learning capability, the indicators of which were, Experiment; Knowledge Transfer; Teamwork. They also measured leadership role and mission clarity. A more recent study has been of Gémez *et al.* (2004), their study has identified different dimensions within organizational learning capability as learning commitment, systems thinking, knowledge transfer and integration, openness and experimentation.

In India, Shukla (1995) offers a theoretical perspective of the definition of OLC, by describing learning capabilities in the learning cycle, as capabilities for self-reflection and planning, environmental scanning capabilities, capabilities to disseminate and share information, capabilities to act and experiment. On the measurement side, Pareek (1988) has conducted Indian studies on learning orientations, called the *Organizational Learning Diagnostics*. Further, Deshpandé and Pendse (undated), had prepared two questionnaires – a 25 item questionnaire on five aspects of learning organizations suggested by Senge (1990a), and another 44 item questionnaire on four aspects suggested by Garvin (1993). Other than Ramnarayan (cited), in India no empirical research has been conducted to study how the organizational learning capability builds the competitive advantage in the Indian organizations, and there is a need to address these as post liberalization reforms have institutionalized and India has witnessed the first and the second phase of successful economic reforms. The need to measure organizational learning capabilities thus becomes more crucial in this context.

Research approach and hypotheses

Organizational learning capability differential in Indian public sector, private sector and multinational managers

From 1947 until the 1980s, in striving to achieve a socialistic society with self-reliance, the Indian government adopted centralized planning, highly regulated and restrictive use of private domestic and foreign investment (Amba-Rao *et al.*, 2000). State-owned public sector forms dominated the organized or the "modern" sector jobs, where two-thirds of the workforce was employed (Sodhi, 1994). Public sector enterprises, constrained by government and union pressures, were compelled to accept this "entitlement" approach, resulting in workforce inflexibility and lower productivity.

The inefficiencies of centralized planning also created shortages in all sectors and led to abuse of power and questionable practices by various officials (Mathias, 1994; Tayeb, 1988). Historically the PSU setup in India has been a mixed bag. While some PSUs have been in financial and operational disrepair, there have been others who have excelled in their fields (Thakur, 1999). In an empirical analysis of Multi national corporations, public sector and private firms in India, Virmani and Guptan (1991) concluded that all firms used similar management practices, and differed only in degrees. Similar firm findings were reported by Amba-Rao (1994). A key difference that Virmani and Guptan (1991) observed, however, was that the practices of the Indian firms were more personalized and *ad hoc*, subject to the whims of top management, while the practices of the Western firms were more likely to be impersonally institutionalized and stable. Private sector organisations in India tend to recruit their relatives to top positions, and accordingly practices related to promotion, transfer and benefits are manipulated as a result of social contacts and personalized relationships (Dutta, 1997). A professional approach (based on formal rules) to managing in Indian private sector organisations is generally not adopted because it is perceived as a threat to the owners' ability to enforce control (Piramal, 1996, 1998). For example, India's largest family conglomerate, the Tata Group that accounts for three percent of country's GDP, chose to nominate a family insider to Chair the board of the corporation although several more competent non-family senior managers were available (Ramaswamy *et al.*, 2000). Moreover, senior managers in Indian public sector organisations make fewer decisions in conjunction with their subordinates (Mankidy, 1995; Tayeb, 1988).

In addition, studies of managers in large public sector and private firms in the last two decades found wide disparity between desired and actual practices (Cyriac, 1992; Cyriac and Dharmaraj, 1994; Monappa, 1977; Soares, 1981). Therefore, the Public Sector firms may allow a limited amount of employee input into decisions (Sinha, 1994), and organizational learning capability may differ significantly in managers of Public, private and multinational firms. With the dynamic economic environment, private and multinational firms will be more learning oriented than the public sector. Thus, we posit that:

- H1.* The public sector, private sector and multinational managers' perception of organizational learning capability will differ significantly, with private sector and multinational managers showing higher OLC.

Further Industrial sectors in India also vary in terms of responding to change in the environment. Hence, the organizational learning capability within the sectors will also throw an interesting picture. Propositions related to the Industrial sectors thus are:

- P1a.* Managers in Indian industrial sectors will differ in the perception of Organizational learning capability.
- P1b.* The managers of sunrise sectors will have a higher organizational learning capability than managers of manufacturing/engineering sectors.

Organizational learning capability and firm performance

Few concrete studies exist that clarify how the learning organization concept works to achieve performance improvement (Goh and Richards, cited in Henderson, 1997;

Jacobs, 1995; Kaiser and Holton, 1998). As far as organizational learning and performance is concerned, Ellinger *et al.* (2003), has established a link between financial indicators of performance and Organizational learning, through empirical research. It is imperative to refer to the difference between Organizational Learning and Learning Organization. Thomsen and Hoest (2001), states organizational learning and learning organizations can be seen as two sides of the same coin. The process to become a learning organization is through the development of organizational learning and organizational learning is the central activity in the learning organization (Gephart *et al.*, 1996; Tsang, 1997).

Scholars contend that adopting learning organization strategies should promote individual, team, and organizational learning and that such enhanced learning should yield performance gains (Baker and Sinkula, 1999; Day, 1994; Hunt and Morgan, 1996; Pettigrew and Whipp, 1991; Slater and Narver, 1995). The financial turnover and financial profit are widely used measure of organizational productivity (Youndt *et al.*, 1996).

Thus, we posit that:

H2. Organizational learning capability will be predicted by firm's profits and financial turnover.

Methodology

Sample and data collection

A questionnaire survey was adopted to collect the data. The sampling was done in two steps in 2001. In the first step, 50 Indian organizations were chosen randomly from the National capital region of India, from the prowess data base, available on the intranet of Institute for Integrated Learning in Management (IILM), New Delhi. Out of these fifty organizations, 1,000 managers from top, middle and lower level, who were either HR or Line, were randomly approached to fill in the questionnaires. These were filled personally by the executives in meetings and were kept confidential. The response rate was 61.2 per cent. There were 213 managers from the Government sector, while 248 from the private sector and 151 managers from the multinational sector, totaling upto 612 managers. The sample size for the industry wise analysis is incorporated in Table II.

Questionnaire. We selected a 40 item organizational learning capability questionnaire (Ramnarayan *et al.*, 1993, Ramnarayan, 1996, 1998) for this study, as it was focusing on learning capabilities emanating from learning challenges, in the Indian context (refer to Table I).

This is based on a five-point Likert scale, ranging from does not match at all (0) to matches perfectly (5). The result of the Cronbach alpha (0.88) and interclass correlation indicate that the scale has achieved acceptable levels of inter-item and inter-rater reliability (Judd *et al.*, 1991).

Data analysis. To prove the first hypothesis and the two propositions ANOVA, along with mean and standard deviation were calculated, while to prove the second hypothesis, step wise regression analysis was calculated using the statistical package, SPSS[®], 11.5 version.

Results. When we refer to Table III we find that the ANOVA of Type of Ownership ($df = 8, 603, F = 10.55, Probability = 0.000$) is significant at 0.01 level of significance. Thus, we accept the Hypothesis 1. Whereas Table IV, depicts the mean and S.D. of the

Managerial response of various technology based sectors	OLC		Clear focus on objectives	Horizontal integration	Vertical integration	Sensitivity to peoples' potential needs		Long term planning	Creativity and experimentation	Environmental scanning	Concern for development of capability
	Mean	S.D				Vertical integration	Horizontal integration				
IT n = 105	138.20	17.41	17.12	16.90	24.48	19.14	10.28	11.12	21.41		
Power n = 62	15.74	4.26	3.64	2.99	4.73	3.34	1.99	1.90	3.56		
Pharma n = 87	125.75	16.67	16.07	16.18	21.21	18.06	9.27	9.56	19.05		
Banks and Ins n = 136	19.125	3.45	3.76	2.98	4.63	3.15	1.82	2.44	4.05		
Telecom n = 51	131.12	16.00	16.16	15.82	23.40	19.10	10.32	10.65	19.74		
Auto n = 38	15.86	3.48	3.83	2.75	5.20	4.45	2.09	2.02	4.61		
Dairy n = 49	122.39	15.58	14.85	15.52	21.47	18.45	8.91	9.71	17.85		
Media n = 41	21.16	4.12	4.07	2.51	5.95	3.96	2.40	2.71	4.66		
Engg n = 43	131.29	15.98	15.49	15.59	24.46	19.14	10.50	10.41	19.94		
Total = 612	25.21	5.07	4.20	2.98	5.98	3.98	2.47	2.92	5.55		
	134.34	15.54	14.87	15.45	24.38	19.50	10.31	10.58	20.80		
	19.68	4.12	4.57	3.31	5.66	4.16	2.54	2.31	4.96		
	122.30	15.47	14.16	15.01	21.61	18.42	9.07	10.44	19.28		
	21.25	4.80	4.12	3.58	5.739	3.49	2.58	2.37	4.59		
	134.51	16.86	16.17	15.72	24.89	19.04	10.38	10.64	19.71		
	19.11	4.40	4.33	3.12	4.97	3.16	2.06	2.31	4.20		
	111.37	15.10	14.59	15.00	18.70	16.43	8.26	8.53	15.97		
	25.56	4.01	4.75	2.99	6.61	3.79	2.74	2.51	5.69		
	128.20	16.13	15.60	15.80	22.74	18.65	9.67	10.23	19.33		
	21.16	4.19	4.15	2.99	5.72	3.82	2.38	2.48	4.78		

Table II.
Means and standard
deviation of OLC and
OLC sub-variables of
managers in the nine
industrial sectors in India

responses of the managers on OLC, with the MNC mean being the highest, and the S.D. being closer to the mean ($M = 135.43$, $S.D. = 15.97$). The capabilities which is standing out is the potential and capability development (22.74, 19.33), while experimentation-creativity and environmental scanning have lower means (9.67, 10.23). Studies have found an increased importance to employee development in Indian organisations (see Balaji *et al.*, 1998; Budhwar, 2000). This is further evidenced by the presence of in-house training and development facilities in many Indian public sector organisations (see Sharma, 1992). This result finds support from the study conducted by Ramnarayan (1998), who found in a survey of 2,630 senior managers from 82 Indian firms that organizations tend to pay adequate attention to generation of new ideas for change, but ignore the dimension of organizational processes, which facilitate or block the flow of these insights to other parts of the organization. Moving to the propositions, we find the ANOVA for nature of Industry is significant, refer to Table V, ($df = 106$, 505 , $F = 1.626$, F Probability = 0.000). Thus OLC between the managers of the nine Industrial sectors differ significantly, (refer to Table II), with the mean of the sunrise sector, Information Technology being the highest ($M = 138.2$), and that of the engineering sector being the lowest ($M = 111.37$).

Both the *P1a* and *P1b* find support in the results of the study. The results of this study are well supported by the study of Sharma, 2001, which reported significant difference in ANOVA of foreign and Indian Firms, in terms of organizational learning and organizational capability. The results further support the findings of the study conducted by Virmani and Guptan (1991) and Amba-Rao (1994). The results support the study of Budhwar and Boyne (2004), who found Indian private sector firms to be more prompt to respond to the competitive business environment. A number of Indian writers (see Mankidy, 1993; Krishna and Monappa, 1994) have shown the influence of the Japanese models of management in Indian organisations.

To test *H2*, whether firm performance indicators of financial turnover and firm's profit were predictors of OLC, we carried out the Stepwise regression analysis. Tables VI, VII and VIII depict the model. We find encouraging results here. When we examine the R^2 , we find that after the first step it has jumped from 0.031 to 0.037, which is quite negligible and in effect shows the redundancy of adding financial profit as the second independent variable. This is well supported by Kerlinger (1973, p. 629), who states, "efficiency of predictor is as good with one independent variable". Further the multiple R -value indicating the strength of the relationship between the firm turnover and firm profit with OLC is 0.017, signifying that there is some linear relationship present. Next the ANOVA F is significant, signaling that it is justifiable to use a straight-line relationship to model the variables in this case. Further to test the statistical significance of β , we examine the t 's. In the first step the t for financial turnover is significant (significant to 0.000). We did not test Financial profit, due to the redundancy factor.

Table III.
Summary of one way ANOVA of variable OLC and type of ownership (public sector, private limited and multinational firms)

Source	Sum of squares	<i>df</i>	Mean square	<i>F</i>	Sig.
Between groups	33628.69739	8	4203.587173	10.55736995	0.000
Within groups	240094.1784	604	398.1661334		
Total	273722.8758	612			

Managerial response based on ownership of firms	Mean and S.D.	OLC	Clear focus on objectives	Sensitivity to people's potential needs					Long-term planning	Creativity and experimentation	Environmental scanning	Concern for development of capability
				Horizontal integration	Vertical integration	Horizontal integration	Vertical integration	Horizontal integration				
Govt	Mean	121.72	15.63	14.89	15.54	21.12	18.03	9.05	9.86	18.19		
213	S.D.	22.75	4.24	4.25	3.02	5.79	3.72	2.49	2.65	4.91		
MNC	Mean	135.53	17.01	16.43	16.32	24.25	19.41	10.45	10.86	20.72		
151	S.D.	15.97	3.79	3.74	3.14	4.88	3.39	2.07	1.93	3.90		
Private	Mean	129.30	16.03	15.71	15.70	23.16	18.74	9.75	10.16	19.45		
248	S.D.	20.93	4.31	4.21	2.84	5.81	4.07	2.32	2.55	4.92		
Total 612	Mean	128.20	16.13	15.60	15.80	22.74	18.65	9.67	10.23	19.33		
	S.D.	21.16	4.19	4.15	2.99	5.72	3.82	2.38	2.48	4.78		

Table IV.
Means and standard deviation of OLC of managers in the public, private and multi-national sectors in India

This result is partly supported by the study of Ellinger *et al.* (2002, pp. 163-172), whose “exploratory research suggests a positive association between learning organization practices and firms’ financial performance. These findings offer tentative support for some of the more normative assertions that are found in the learning organization literature. These findings also lend credence to the existence of a business case for embracing learning organization practices”.

Implications and conclusion

The result of this study implies the criticality of organizational learning capability and its enhancement in Indian Managers. The current study lends credence to measuring OLC in Indian organizations. Managerial responses based on nature of ownership and

Table V.
Summary of one way ANOVA of variable OLC and managers of various in technology based sectors

Source	Sum of squares	df	Mean square	F	Sig.
Between groups	923.32585	106	8.710621227	1.626005209	0.000
Within groups	2705.319575	506	5.357068465		
Total	3628.645425	612			

Table VI.
Stepwise regression model for firm’s turnover and profit as predictors of OLC

Model	R	Model summary		
		R square	Adjusted R square	Standard error of the estimate
1	0.177317588	0.031441527	0.029853726	20.84491354
2	0.192423809	0.037026922	0.033864449	20.80178099
a	Predictors: (constant), Financial turnover			
b	Predictors: (constant), Financial turnover, Financial profit			

Table VII.
Stepwise regression model for firm’s turnover and profit as predictors of OLC

Model		ANOVA				
		Sum of squares	df	Mean square	F	Sig.
1	Regression	8604.146879	1	8604.146879	19.80193449	0.000 ^a
	Residual	265051.3564	611	434.5104203		
	Total	273655.5033	612			
2	Regression	10132.62105	2	5066.310526	11.70821708	0.000 ^b
	Residual	263522.8822	610	432.7140923		
	Total	273655.5033	612			
a	Predictors: (constant), Financial turnover					
b	Predictors: (constant), Financial turnover, Financial profit					
c	Dependent variable: OLC					

type of industry also significantly differ in their perception of OLC, with Information technology sector managers and multinational managers showing higher OLC. Further it shows good signs for development of potential and capabilities, though the managers felt that the processes for encouragement of experimentation and environmental scanning needed more attention in the Indian Industry. In the IT sector, currently there are the expectations of the industry to focus on volume growth and the trends in the Information technology sector, which lend credence to the need for high organizational learning capability. Support to this finding, also drives from the fact that Multinational managers and Information technology managers have access to excellent systems in India, as compared to the public sector and engineering sector managers, which demonstrated the lowest means. Encouraging results of predicting OLC through firm performance were found, where a linear relationship was established, through financial turnover. More robust performance indicators, different samples and a longitudinal study with qualitative and quantitative research design can strengthen the limitations of the current study. This research helps establish a business case for OLC in India, and represents a foundation for future studies, following Ellinger *et al.* (2002). Managers can gain competitive advantage if they continuously upgrade their organizational learning capability faster than their competitors. The findings find strong implications for the organizational learning capability of Indian managers, nested in a context of a learning economy, after the economic reforms. The study contributes to both theory and practice. From a theoretical point of view, the results help to test the public sector versus private/multinationals debate in the field of HRM in India for HR professionals, the study provides crucial information regarding the context-specific nature of HRM that can be used to develop new programmes for managers operating in India, which will enhance the organizational learning capability of the managers and the firm. Strategic HR interventions on organizational learning capability can be provided more visibility and a constant endeavor must be made within the organization to benchmark against the best practices. Thus implying a need for continuous environmental scanning- both internal and external, to facilitate this process. Support for experimentation and creativity can be further built through organizational development interventions. With intense changes taking place in the environment the western talent wars are facing the Indian market as well. The variable of sensitivity to people and their potential provides implications for a rigorous talent management strategy. If adequate attention is paid to this dimension, then it can lead to gaining of competitive advantage, through retention and development of key talent. Thus HR managers and top management of public, private and multinational firms need to pay attention to the emerging aspects of organizational learning and for designing HR practices that leverage this against their competitors.

Model		Coefficients		Standardized coefficients β	t	Sig.
		Unstandardized coefficients B	Standard error			
1	(Constant)	177.3051738	11.07095864		16.01534064	0.000
	Financial turnover	5.559971586	1.249449658	0.177317588	4.449936459	0.000

Table VIII.
Stepwise regression
model for firm's turnover
and profit as predictors of
OLC

Limitations

The study has two main limitations. First, the researchers cannot draw generalizations based on the sample, but can reiterate that it is an indicator of organizational learning capability trends. The reasons for this may be attributed to the limitation of sample size from organizations clubbing into various sectors, which is small. However, we can draw generalizations based on the managerial profile. Further research can refine the sampling technique. Secondly the study focuses only on the managerial cadres of the organization. Further research in the area may include non-managerial employees in different units and functions of the organizations. In this survey firm performance indicators of return on equity (ROE), return on assets (ROA), Tobin's q , and Market Value Added (MVA), (Ellinger *et al.*, 2003) could not be used, which further studies can pursue. The study looked at managers of the Indian public sector, private firms and multinational firms. The research paper does not test the possibility of firm performance affecting OLC, which may be true and the author acknowledges it as a limitation of the research study and future studies may investigate this further.

References

- Amba-Rao, S.C. (1994), "Human resource management practices in India: an exploratory study", *Indian Journal of Industrial Relations*, Vol. 30 No. 2, pp. 190-202.
- Amba-Rao, S.C., Petrick, J.A., Gupta, J.N.D. and Von der Embse, T.J. (2000), "Comparative performance appraisal practices and management values among foreign and domestic firms in India", *The International Journal of Human Resource Management*, Vol. 11 No. 1, pp. 60-89.
- Argyris, C. and Schön, D. (1996), *Organizational Learning II: Theory, Method, and Practice*, Addison-Wesley, Reading, MA.
- Armstrong, M. (2000), "The name has changed but has the game remained the same?", *Employee Relations*, Vol. 22 No. 6, pp. 576-89.
- Ayas, K. and Zeniuk, N. (2001), "Project-based learning: building communities of reflective practitioners", *Management Learning*, Vol. 32 No. 36, pp. 61-76.
- Baker, W.E. and Sinkula, J.M. (1999), "The synergistic effect of market orientation and learning orientation on organizational performance", *Journal of the Academy of Marketing Science*, Vol. 27, pp. 411-27.
- Balaji, C., Chandrasekhar, S. and Dutta, R. (Eds) (1998), *Leading Change through Human Resources: Towards a Globally Competitive India*, Tata McGraw-Hill, New Delhi.
- Bower, D. (1993), "The learning organization: a Rover perspective", *Executive Development*, Vol. 6 No. 2, pp. 3-6.
- Budhwar, P. (2000), "Determinants of HRM policies and practices in India: an empirical study", *Global Business Review*, Vol. 1 No. 2, pp. 231-47.
- Budhwar, P. and Boyne, G. (2004), "Human resource management in the Indian public and private sectors: an empirical comparison", *The International Journal of Human Resource Management*, Vol. 15 No. 2, pp. 346-70.
- Budhwar, P. and Khatri, N. (2001), "Comparative human resource management in Britain and India: an empirical study", *International Journal of Human Resource Management*, Vol. 13 No. 5, pp. 800-26.
- Chandler, A.D. (1977), *The Visible Hand, The Managerial Revolution in American Business*, The Belknap Press of Harvard University Press, Cambridge, MA and London.

- Chandler, A.D. (1990), *Scale and Scope, The Dynamics of Industrial Capitalism*, The Belknap Press of Harvard University Press, Cambridge, MA.
- Chandler, A.D. (1992), "Organizational capabilities and the economic history of the industrial enterprise", *Journal of Economic Perspectives*, Vol. 6 No. 3.
- Cohen, M.W. and Levinthal, A.D. (1990), "Absorptive capacity: a new perspective on learning and innovation", *Administrative Science Quarterly*, Vol. 35, pp. 128-52.
- (The) *Columbia Journal of World Business* (1994), *The Columbia Journal of World Business*, Spring.
- Cyriac, K. (1992), "The ethics wave in management education", *Management and Labor Studies*, Vol. 7 No. 2, pp. 5-12.
- Cyriac, K. and Dharmaraj, R. (1994), "Machiavellianism in Indian management", *Journal of Business Ethics*, Vol. 13, pp. 281-6.
- Day, G.S. (1994), "The capabilities of market-driven organizations", *Journal of Marketing*, Vol. 58, pp. 37-52.
- De Geus, A.P. (1988), "Planning as learning", *Harvard Business Review*, March-April, pp. 70-4.
- Deshpandé and Pendse (undated), in Pareek, U., *Learning Organizations, Concepts, Processes and Development*, personal communication.
- DiBella, A. (1995), "Developing learning organizations: a matter of perspective", *Academy of Management Proceedings*, pp. 287-90.
- DiBella, A.J., Nevis, E.C. and Gould, J.M. (1996), "Understanding organizational learning capability", *Journal of Management Studies*, Vol. 33 No. 3, pp. 361-79.
- Dutta, S. (1997), *Family Business in India*, Sage Publications, New Delhi.
- Elkjaer, B. (2001), "The learning organization: an undelivered promise", *Management Learning*, Vol. 32 No. 4, pp. 437-52.
- Ellinger, A.D., Ellinger, A.E., Yang, B. and Howton, S.W. (2002), "The relationship between the learning organization concept and firm's financial performance: an empirical assessment", *Human Resource Development Quarterly*, Vol. 13 No. 1.
- Ellinger, A.D., Ellinger, A.E., Yang, B. and Howton, S.W. (2003), "Making the business case for the learning organization concept: the problem and the solution", *Advances in Developing Human Resources*, Vol. 5 No. 2, pp. 163-72.
- Garvin, D. (1993), "Building a learning organization", *Harvard Business Review*, July-August, pp. 78-91.
- Gephart, M., Marsick, V., Van Buren, M. and Spiro, M. (1996), "Learning organizations: come alive", *Training and Development*, Vol. 50 No. 12, pp. 34-6.
- Goh, S.C. (1998), "Toward a learning organization: the strategic building-blocks", *SAM Advanced Management Journal*, pp. 15-22.
- Goh, S.C. (2003), "Improving organizational learning capability: lessons from two case studies", *The Learning Organization*, Vol. 10 No. 4, pp. 216-27.
- Goh, S.C. and Richards, G.R. (1997), "Benchmarking the learning capability of organizations", *European Management Journal*, Vol. 15 No. 5.
- Gómez, J.P., José, J., Céspedes, L. and Ramón Valle, C. (2004), "Organizational learning capability: a proposal of measurement", *Journal of Business Review*, Vol. 58 No. 6, pp. 715-25.
- Grant, R.M. (1991), "The resource-based theory of competitive advantage: implications for strategy formulation", *California Management Review*, Vol. 17, pp. 114-35.

- Henderson, S. (1997), "Black swans don't fly double loops: the limits of the learning organization?", *The Learning Organization*, Vol. 4, pp. 99-105.
- Huber, G.P. (1991), "Organizational learning: the contributing processes and the literatures", *Organization Science*, Vol. 2 No. 1, pp. 88-115.
- Hult, G.T. and Ferrell, O.C. (1997), "Global organizational learning capacity in purchasing: construct and measurement", *Journal of Business Research*, Vol. 40, pp. 97-111.
- Hunt, S.D. and Morgan, R.M. (1996), "The resource-advantage theory of competition: dynamics, path dependencies, and evolutionary dimensions", *Journal of Marketing*, Vol. 60, pp. 107-14.
- Itam, H. (1987), *Mobilizing Invisible Assets*, Harvard University Press, Cambridge, MA.
- Jacobs, R. (1995), "Impressions about the learning organization: looking to see what is behind the curtain", *Human Resource Development Quarterly*, Vol. 6, pp. 119-22.
- Judd, C.M., Smith, F.R. and Kidder, L.H. (1991), *Research Methods in Social Relations*, Holt, Rinehart and Winston, Austin, TX.
- Kaiser, S.M. and Holton, E.F. (1998), "The learning organization as a performance improvement strategy", in Torraco, R. (Ed.), *Proceedings of the 1998 Annual Academy of Human Resource Development Conference*, Academy of Human Resource Development, Oak Brook, IL, pp. 75-82.
- Kandula, S.R. (2001), *Strategic Human Resource Management*, Prentice Hall, New Delhi.
- Kerlinger, F.N. (1973), *Foundations of Behavioral Research*, Holt, Rinehart and Winston Inc., New York, NY.
- Krishna, A. and Monappa, A. (1994), "Economic restructuring and human resource management", *Indian Journal of Industrial Relations*, Vol. 31 No. 4, pp. 490-9.
- Lee, S. (1992), "A system of organizational learning using cognitive maps", *International Journal of Management Science*, p. 20.
- Lei, D., Hitt, M.A. and Bettis, R. (1996), "Dynamic core competencies through meta-learning and strategic context", *Journal of Management*, Vol. 22 No. 4, pp. 549-69.
- Lei, D., Slocum, J.W. and Pitts, R.A. (1999), "Designing organizations for competitive advantage: the power of unlearning and learning", *Organization Dynamics*, pp. 24-38.
- Leonard-Barton, D. (1992), "The factory as learning laboratory", *Sloan Management Review*, Fall, pp. 23-38.
- McGill, M.E., Slocum, J.W. and Lei, D. (1992), "Management practices in learning organizations", *Organization Dynamics*, Vol. 21 No. 1, pp. 5-17.
- McGill, M.E., Slocum, J.A. Jr and Lei, D. (1994), "Management practices in learning organizations", *Organizational Dynamics*, Summer, pp. 5-17.
- Mankidy, J. (1993), "Emerging patterns of industrial relations in India", *Management and Labour Studies*, Vol. 18 No. 4, pp. 199-206.
- Mankidy, J. (1995), "Changing perspectives of workers' participation in India with particular reference to banking industry", *British Journal of Industrial Relations*, Vol. 33 No. 3, pp. 443-58.
- March, J.G. (1971), "The technology of foolishness", *Civilokonomien*, Vol. 18 No. 4.
- Marquardt, M.J. and Reynolds, A. (1994), *The Global Learning Organization*, Irwin, New York, NY.
- Mathias, T.A. (Ed.) (1994), *Corporate Ethics*, Allied Publishers, New Delhi.
- Monappa, A. (1977), *Ethical Attitudes of Indian Managers*, AMA, New Delhi.

- Naman, J.L. and Slevin, D.P. (1993), "Entrepreneurship and the concept of fit: a model and empirical test", *Strategic Management Journal*, Vol. 14 No. 2, pp. 135-52.
- Nathan, A., Santi, D., Boeckner, A., Bontempo, F., Chasholm, B., Colbert, B., Hill, J. and Tiley, J. (1997), "Organizational learning: from an entity to a process for organizational effectiveness", *The 1997 Annual*, Vol. 2, *Consulting*, Pfeiffer, San Diego, CA.
- Nevis, E.C., DiBella, A.J. and Gould, J.M. (1995), "Understanding organizations as learning systems", *Sloan Management Review*, Winter, pp. 73-85.
- Nilakant, V. and Ramnarayan, S. (1998), *Managing Organizational Change*, Response Books, Sage Publications, New Delhi.
- Nonaka, I. (1994), "A dynamic theory of organizational knowledge creation", *Organizational Sciences*, Vol. 5 No. 1, pp. 14-37.
- Nonaka, I. and Takeuchi, H. (1995), *The Knowledge Creating Company*, Oxford University Press, New York, NY.
- Noon, M. and Blyton, P. (2002), *The Realities of Work*, Palgrave, Basingstoke.
- O'Brien, W. (1990), "The leader's new work: building learning organization", in Senge, P.M., *Sloan Management Review*, Fall, p. 20.
- Pareek, U. (1988), "Organizational learning diagnostics", *Measuring Organizational Climate*, Academy of HRD, Ahmedabad.
- Pedler, M., Burgoyne, J. and Boydell, T. (1997), *The Learning Company: A Strategy for Sustainable Development*, McGraw-Hill, London.
- Pettigrew, A. and Whipp, R. (1991), *Managing Change for Competitive Success*, Basil Blackwell, Oxford.
- Pfeffer, J. (1994), *Competitive Advantage through People*, Harvard University Press, Boston, MA.
- Piramal, G. (1996), *Business Maharajas*, Viking Books, New Delhi.
- Piramal, G. (1998), "India's business families: the inside outside view", *Business Today*, 7 January-6 February.
- Popper, M. and Lipshitz, R. (1998), "Organizational learning mechanisms: a structural and cultural approach to organizational learning", *Journal of Applied Behavioral Science*, Vol. 34 No. 2, pp. 161-79.
- Ramaswamy, K., Veliyath, R. and Gomes, L. (2000), "A study of determinants of CEO compensation in India", *Management International Review*, Vol. 40 No. 2, pp. 167-91.
- Ramnarayan, S. (1996), "Organizational learning capability", *Measuring Organizational Climate*, Academy of HRD, Ahmedabad.
- Ramnarayan, S. (1998), "Kindling learning processes in organizations", in Ramnarayan, S., Rao, T.V. and Singh, K. (Eds), *Organization Development: Interventions and Strategies*, Sage, New Delhi.
- Ramnarayan, S. and Bhatnagar, J. (1993), "How do Indian organizations meet learning challenges", *Vikalpa, Journal of Indian Institute of Management*, Vol. 18 No. 1.
- Ramnarayan, S., Krishnan, U. and Nair, K. (1993), "How managers kindle the learning process", working paper 1119, July, Indian Institute of Management, Ahmedabad.
- Rao, T.V., Rao, R. and Yadav, T. (2001), "A study of HRD concepts, structure of HRD departments, and HRD practices in India", *Vikalpa*, Vol. 26 No. 1, pp. 49-63.
- Sadler-Smith, E., Chaston, I. and Spicer, D.P. (1999), "Organizational learning in smaller firms: an empirical Perspective", *Proceedings of the 3rd International Conference, Lancaster University, 6-8 June*.

- Salisbury, M. (2001), "An example of managing the knowledge creation process for a small workgroup", *Management Learning*, Vol. 32 No. 3, pp. 305-19.
- Senge, P. (1990a), *The Fifth Discipline: The Art and Practice of the Learning Organization*, Doubleday, New York, NY.
- Senge, P. (1990b), "The leader's new work: building learning organizations", *Sloan Management Review*, pp. 7-23.
- Sharma, A. (2001), "Factors related to strategic human resource management: a study of global organizations in India", unpublished dissertation, Indian Institute of Technology, Delhi.
- Sharma, R.D. (1992), "Management training in India: its nature and extent", *International Journal of Manpower*, Vol. 13 No. 2, pp. 41-54.
- Shukla, M. (1995), "The learning edge: building capabilities for corporate performance", in Akhilesh, K.B., Prasad, L. and Singh, P. (Eds), *Evolving Performing Organizations through People*, New Age International, New Delhi.
- Shukla, M. (1997), *Competing through Knowledge- Building: A Learning Organization*, Response Books, Sage Publications, New Delhi.
- Sinha, D.P. (1994), "Indian management: context, concerns and trends", in Patti, J.M. (Ed.), *Management: Asian Context*, McGraw-Hill, New York, NY.
- Slater, S.F. and Narver, J.C. (1995), "Market orientation and the learning organization", *Journal of Marketing*, Vol. 59, pp. 63-74.
- Slocum, J.W., McGill, M. and Lei, D.T. (1994), "The new learning strategy: anytime, anything, anywhere", *Organizational Dynamics*, pp. 33-47.
- Snell, S.A., Youndt, M.A. and Wright, P.M. (1996), "Establishing a framework for research in SHRM: merging resource theory and organizational learning", *Research in Personnel and Human Resource Management*, Vol. 14, pp. 61-90.
- Soares, F. (1981), "Values of Indian managers: the basis of progress", *Indian Management*, Vol. 10, pp. 32-8.
- Sodhi, J.S. (1994), "Emerging trends in industrial relations and human resource management in Indian industry", *Indian Journal of Industrial Relations*, Vol. 30 No. 1, pp. 19-37.
- Som, A. (2002), "Role of human resource management in organizational design", unpublished doctoral dissertation, Indian Institute of Management, Ahmedabad.
- Sparrow, P.R. and Budhwar, P. (1997), "Competition and change: mapping the Indian HRM recipe against the world wide patterns", *Journal of World Business*, Vol. 32, pp. 224-42.
- Stata, R. (1989), "Organizational learning: the key to management innovation", *Sloan Management Review*, Spring, pp. 63-74.
- Storey, J. and Quintas, P. (2001), "Knowledge management and HRM", in Storey, J. (Ed.), *Human Resource Management: A Critical Text*, Thomson Learning, London.
- Tayeb, M.H. (1988), *Organisations and National Culture*, Sage, London.
- Thakur, T.N. (1999), "Public sector: the road to freedom", *Economic Times*, 12 January.
- Thomsen, H. and Hoest, V. (2001), "Employees' perception of the learning organization", *Management Learning*, Vol. 32 No. 4, pp. 469-91.
- Tsang, E.W. (1997), "Organizational learning and the learning organization: a dichotomy between descriptive and prescriptive research", *Human Relations*, Vol. 50 No. 1, pp. 73-89.
- Ulrich, D., Jick, T. and Von Glinnow, M. (1993), "High impact learning: building and diffusing learning capability", *Organizational Dynamics*, Autumn, pp. 52-66.

-
- Venkata Ratnam, C.S. (1995), "Economic liberalization and the transformation of industrial relations policies in India", in Verma, A., Kochan, T.A. and Lansbury, D.R. (Eds), *Employment Relations in the Growing Asian Economies*, Routledge, London.
- Virmani, B. and Guptan, S. (1991), *Indian Management*, Vision Books, New Delhi.
- Youndt, M.A., Snell, S.A., Dean, J.W. Jr and Lepak, D.P. (1996), "Human resource management, manufacturing strategy, and firm performance", *Academy of Management Journal*, Vol. 39 No. 4, pp. 836-66.

Further reading

- Budhwar, P. (2003), "Employment relations in India", *Employee Relations*, Vol. 25 No. 2, pp. 132-48.
- Cyert, R.M. and March, J.G. (1963), *A Behavioral Theory of the Firm*, Prentice-Hall, Englewood Cliffs, NJ.
- Hendry, C. and Pettigrew, A.M. (1992), "Patterns of strategic change in the development of human resource management", *British Journal of Management*, Vol. 3, pp. 137-56.
- Hodgkinson, M. (2000), "Managerial perceptions of barriers to becoming a learning organization", *The Learning Organization*, Vol. 7 No. 3, pp. 156-66.
- Hult, G.T.M., Snow, C.C. and Kandemir, D. (2003), "The role of entrepreneurship in building cultural competitiveness in different organizational types", *Journal of Management*, Vol. 29 No. 3, pp. 401-26.
- Leitch, C., Harrison, R., Burgoyne, J. and Blantern, C. (1996), "Learning organizations: the measurement of company performance", *Journal of European Industrial Training*, Vol. 20 No. 1, pp. 31-44.
- Levitt, B. and March, G. (1988), "Organizational learning", *Annual Review of Sociology*, Vol. 14, pp. 319-40.
- Lieberman, M.B. (1987), "The learning curve, diffusion and competitive strategy", *Strategic Management Journal*, Vol. 8 No. 5, pp. 441-52.
- Popper, M. and Lipshitz, R. (2000), "Installing mechanisms and instilling values: the role of leadership in organisational learning", *The Learning Organization*, Vol. 7 No. 3, pp. 135-44.
- Sharma, I.J. (1984), "The culture context of Indian managers", *Management and Labour Studies*, Vol. 9 No. 2, pp. 72-80.
- Shrivastava, P. (1983), "A typology of organizational learning systems", *Journal of Management Studies*, Vol. 20 No. 1, pp. 7-28.
- Tayeb, M. (1987), "Contingency theory and culture: a study of matched English and the Indian manufacturing firms", *Organisation Studies*, Vol. 8 No. 3, pp. 241-61.
- Weinstein, O. and Azoulay, N. (1999), "Firms' capabilities and organizational learning: a critical survey of some literature", CREI, Université de Paris 13 et Université de Paris, available at: weinste@seg.univ-paris13.fr December