

A Literature Review on Organizational Learning and Learning Organizations

Hillary O Odor*

Department of Business Administration, Faculty of Management Sciences, University of Benin, Benin City, Nigeria

Abstract

The survival of any organisation, particularly, a profit oriented organisation depends to a large extent, on how well it can adapt to environmental changes, accepts changes and do better in terms of its operations. This conceptual paper reviewed some extant literatures on organisational learning and learning organisations with a view to answering the following question: First, how do you identify a learning organisation when you see one? Secondly, what is the conceptual difference between organisational learning and learning organisation? Thirdly, what are those impediments that deprive organisation from becoming a learning organisation? Fourthly, what benefits do organisations derive from being a learning organisation? Furthermore, it attempted to pinpoint some examples of learning organisations in Nigeria and USA. Accordingly, this paper supports the proposition that organisation learning culture has direct influence on organisational innovativeness, which is directly tied to long-term organisational success. It is recommended, therefore, that all organisations that want to remain competitive should focus on becoming a learning organisation.

Keywords: Learning organization; Organisational learning; Knowledge transfer; Competitive advantage

Introduction

An organisation's capability to learn has been linked to a fundamental source of competitive advantage [1], which is why Hussein and Ishak [2] insisted that organisational learning helps to improve an organisations competitive advantage as well as responsiveness to change. Interestingly, "business executives and intellectuals have come to realize that knowledge assets and intellectual capital can best serve as a source of competitive advantage in comparison with the total dependence of traditional factors of production" [3]. This lends a support to the fact raised by Handy [4] over three decades ago, that the value of a firm's organisational learning capabilities and knowledge assets is frequently several times that of its material assets. This study will review several literatures on organisational learning and learning organisation to explore the various areas that organisations can benefit by focusing on the organisational learning process and its outcome (learning organisation).

Meaning of organisational learning

According to Saadat and Saadat [5], the first to introduce the concept of organisational learning into the literature were Kurt and March. However, another study has it that Cangelosi and Dill were the first to introduce the topic of organisational learning with empirical analysis. Be that as it may, the quantum of debate on whether organisational learning should be conceptualized as a change in cognitions or behaviour has greatly reduced in recent times [6], owing to the great acceptance in recent literature that learning involve both a change in cognition as well as change in behaviour. In other words, it is almost a universal postulation that learning involves both cognition and doing.

Organisational learning is defined as a change in the organisation's knowledge base that occurs due to past experience [7]. Learning organisation has been described as an outcome or product of organisational learning, which is complex and multidimensional in approach. That is why Jones and Hendry [8] view organisational learning as a process going on in the learning organisation" (p. 157). According to Cyert, and March [9], the creation of knowledge, the retention of

knowledge, and the transfer of knowledge, which altogether can be classified as organisational learning, can be conceptualized as formal activities which are a function of experience.

Organisation learning is hereby conceptualized as a "multilevel process where members individually and collectively acquire knowledge by acting together and reflecting together" [10].

Accordingly, this paper proposes that learning organisation culture have direct effects on organisational performance and organisational innovativeness, potentially leading to long-term organisational success.

Approaches to the study of organisational learning

There are two major approaches to the study of organisational learning are: Cognitive and behavioural approach. One of the cognitive theorists, Day [11] defines organisational learning as "the process of developing open-minded inquiry and informed interpretation" (p. 89). Taking into cognizance the fact that, an organisation can acquire knowledge without a corresponding change in behaviour; some researchers have defined organisational learning as a change in the range of potential behaviors [12]. According to Huber, an organisation is said to learn when any of its units acquires knowledge that it recognizes as potentially useful to the organisation. Scott, defines organisational learning as the "acquisition of new insights whereby learners develop new cognitive maps or belief systems" (p. 3).

According to her, whether there is an accompanying shift in behaviour or not, it is immaterial, as far as there is awareness within

*Corresponding author: Hillary O Odor, Ph.D. Scholar, Department of Business Administration, Faculty of Management Sciences, University of Benin, Benin City, Nigeria, Tel: 08155029128; E-mail: hillaryodor@yahoo.com

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the individual or organism that there is a change in assumptions, belief and interpretive schemas, learning is said to have occurred.

There are scholars that support the cognitive-behavioural approach to the study of organisational learning. These theorists insist that for learning to take place, both the belief system and behaviour, by way of action, must be involved. Argyris [13], in trying to establish a relationship between behaviour and action, defined learning as the discovery and correction of errors [14]. Here, learning is viewed as a change in cognition as well as a change in behaviour.

Alvani [15] also supported Argyris opinion when he defines organisational learning as “the process of finding errors and mistakes and then using that knowledge to improve the organisation” [16].

In the opinion of Mayo [17], organisational learning consists of all the methods, mechanics and processes which are used in the organisation in order to achieve learning. Learning is about taking action. It is about using the information that we gather to create knowledge management systems and statistical databases and then using that knowledge to improve the organisation” [18]. The implication of this is that we cannot infer learning when knowledge is acquired but not applied in our daily activities.

Similarly, Pentland [19] defined organisational learning as the capacity of an organisation to act competently. Some researchers have also measured knowledge by assessing characteristics of an organisation’s products or services [20] or its patent stock [21].

Organisational learning is the process of improving actions through better knowledge and understanding. Organisational learning is the development of insights, knowledge and associations between past actions, the effectiveness of those actions and future actions.

Aligned with this more liberal view of the organisational learning process are: Cummings and Worley, who suggest that, organisational learning is a process aimed at helping organisations to develop and use knowledge to change and improve on their performances on a continuous basis. The concept of learning organisation has been linked to innovation and performance in organisations [22-24]. The capacity for change and continuous improvement to meet the challenges in our ever changing environment in which organizations operate has been linked with the capability of these organisations to learn [25].

Generally speaking, learning involves knowledge acquisition, knowledge sharing, knowledge utilization and also new success [26]. Therefore learning cannot take place by means of merely theoretical thinking. It has to be achieved through bodily experiencing and recognition, and by action.

According to Huber the “knowledge acquisition construct consists of five processes: The first is drawing on knowledge available at the organisation’s birth, which can be construed to mean foundation learning” (p. 88). The second is learning from experience, which has to do with what individuals have learnt before. The third is learning by observing other organisations, which can be called role modeling. The fourth is grafting on to itself components that possess knowledge needed but not possessed by the organisation, and finally noticing or searching for information about the organisation’s physical environment.

Grant specifies that organisational learning capability is a consequence of sophisticated assimilation of knowledge, where productive activity is a function of the firm’s capacity to harness and integrate knowledge attributed to multiple individuals and groups.

However, Morgan advised that caution should be exercised here in noting that organisational learning capability depends upon the firm’s mechanisms and processes of knowledge integration, rather than the extent of knowledge that individuals and groups possess per se (p. 23). For that purpose, learning needs a robust environment to thrive and that environment is one that gives time for the reflection of past actions and outcomes. The very implication of the above is that learning will only thrive when organisational members are prepared to accept some unpalatable truths about their thinking and actions.

Furthermore, it will not thrive in a blame culture in the sense that mistakes are inevitable and a consequence of learning. Such an environment makes a distinction between ‘mistakes’ that are due to irresponsibility and lack of forethought and those that are genuine explorations of a new idea or a new way of working and thinking.

On the basis of the above, individuals and teams must be encouraged to be innovative and creative and the only way to be innovative is to explore alternatives without limits, and to take thoughtful and calculative risks where desirable. For the simple reason that all the experiments are not bound to succeed we need to make several trials. When we encounter challenges, we do not need to think of them as failures; rather we need to call them legitimate explorations of the space of possibilities, as part of the search to find new ways of working or doing things.

Organisational learning occurs in a context [27], which includes both the internal environment and the external environment. The internal environment has to do with those variables that are within the control of organisational managers. They include structures, people, and processes. The external environments are those variables outside the control of organisation managers such as competitors, clients, political, economic and legal systems of the business operating environment.

The environment can vary along many dimensions, such as volatility, uncertainty, interconnectedness and munificence. The environmental context affects the experience the organisation acquires.

Dimensions to organisational learning

Management Training conveys the idea of making people more alike than different in some respect and trying to deemphasize individual differences in some particular area. Many organisations spend considerable time, energy, and money to make their managers more alike than different. Instilling company values and philosophy and inculcating the organisation’s climate and norms are examples of exposing managers to ideas and ideals they are expected to emulate and to think similarly about [28]. A good example of management training include salary and payroll administration, data and information processing.

Management development means legitimizing individual differences, giving opportunities for managers to develop and actualize his or her potentials, and encouraging him or her to be more unique in their own personal characteristics.

Many organisations invest so much resource to management developmental programs, like educational advancement program, which will enable the individual to develop his own already built in competences. The assumption made here is that increased self-awareness and understanding can lead to attitudinal or behavioural changes that will increase an individual’s personal effectiveness and ultimately the effectiveness of the organisation.

Organisational development involves policies and programs designed for inculcating in employees the right attitudes, skills and knowledge necessary for success in an employee's job function [29]. According to Beckhard [30] organisational development is a planned process of cultural change, utilizing behavioural science knowledge as a base for interventions aimed at increasing the organisation's health and effectiveness. The focus of organisational development is not solely on the individual person and his or her growth in the organisation. Rather, the focus is on how the individual relates to his or her own work group and how his or her group interfaces with other groups in the organization.

The choice of learning approach employed is a dependent on the organisation objective, given the specific kind of change desired in the organisation. Whether the change is directed at reducing individual differences, legitimizing individual differences, or enhancing group/ intergroup collaboration, performance is the key issue.

Benefits of organisational learning

Organisational learning results in technological innovation, process improvement and product enhancement [31]. In fact, organisational learning will lead to a higher level of competitiveness and it is considered a panacea for long term organisational success and growth. It has been established that there is a positive relationship between the degree of organisational turbulence and organisational learning. That means that the greater the changes in the external environment of a business organisation, the greater the need for organisational learning. In the absence of organisational learning there will be stagnation and the organisation will not be able to adjust to environmental changes. According to Senge, knowledge creation and organisational learning can create a new approach of continuous improvement leading to the increase of organisational performance. One of the reasons why organisational learning is important is that, organisations that have a low level of organisational learning will not be able to adjust to environmental changes which are a consequence of technological innovation. This will invariably limit the ability of the organisation to remain competitive and it will lead the organisation to early death. Thus, one of the strategic values of an organisation lies in becoming a "learning organization". These organizations have an enterprise architecture that converts the firm into a place of learning, so the organization can make appropriate approaches to changing environment, cited in Ramírez, et al. [32].

Levels of organisational learning

In every organisation, there are basically three levels of organisational learning:

The individual level: Learning at the individual level entails getting a person cumulative or new ideas and information belonging to his environment, understanding them, interpreting and experimenting them and then, adjusting his behaviour in terms of obtained results using conceptual and cognitive processes.

According to Hollingshead, specialisation and distribution of knowledge among organisational members create barriers for them to effectively identify, retrieve and transfer knowledge when in need as cited [33].

The group level: When individuals share and interact with other individuals what they have learnt at the individual level, it becomes group level learning. Here, individual share their learning with other individual, interprets together, and obtains a group assumption. The

essence here is on communication. Reagans, et al. [34] studied group learning by examining joint-replacement surgery in teaching hospitals. They concluded that "increased experience working together in a team promoted better coordination and teamwork.

Organisational level: When groups come together to share their knowledge they have acquired through the process of communication, these learning are now transformed into an acceptable instructions for all organisational members and will be made assessable to everyone who needs them [35]. There are three main factors that trigger the study of organisational learning using the organisation as a unit of analysis.

First, is the organisational knowledge memory, which defines the major processes it uses to acquire knowledge [36]. Secondly, in the aspect of technological development, emphasis should be placed on core competences of individuals and groups [37,38]. Finally, there should be routines which operationalise the organisation memories and knowledge bases [39].

Process of organisational learning

Organisational learning involves five stages; from the process of knowledge acquisition to knowledge sharing to knowledge interpretation to knowledge maintenance and finally to knowledge utilization.

According to Argyris and Schon (p. 323), "organisational effectiveness must be experienced before one can claim that organisational learning has taken place".

Su, et al. while citing Rulke and Galaskiewicz, warned that "organisations should not indiscriminately embrace a centralised structure or reject a decentralised structure of knowledge and learning networks. While centralisation may entail efficiency and convenience for information seeking, decentralisation may facilitate the distribution of critical information" (p. 592).

"Organisational learning is as natural as learning in individuals as they attempt to adjust and survive in an uncertain and competitive world" [40].

Factors that contribute to organisational learning

1. Corporate strategy: how organisation is structured to learn from mistakes.
2. Resource allocation: exploration and exploitation.
3. Recognition for the employees' motivation for learning.

Hashemi identified nine main factors that affect organisational learning as follows: systems thinking, team learning, mental models, ideal and vision commons, skill and domination personals, experimenting with new approaches, learn from past experiences, learning from others, and knowledge transfer.

Research has shown that organisation leaders have a very great impact on effective learning. Leaders, who view knowledge as valuable asset, tend to have a positive approach to organisational learning. Organisations must, therefore design themselves as laboratories for learning in terms of acquiring, generating, sharing and using knowledge based resources continuously towards innovation and performance enhancement and acquisition, sharing and use of knowledge resources must involve all members of the organization.

Furthermore, it is important that muribond methods of thinking should be reviewed; no wonder, Aryris advised that for double loop

learning to take place it requires that underlying assumptions and norms should be open to objective evaluations. According to him, dilemmas and paradoxes are much more likely to occur in more advanced and successful systems given that deep-seated issues have long been engrained during the early stages of development. Similarly, West and Burnes [41] maintained that, although organisational learning may be an important factor in building an organisation's competitiveness, it cannot and does not guarantee success on its own.

Khandekar and Sharma [42] in their study on organisational learning and performance found that the organisational learning, which largely gets reflected through HRM activities, has a positive correlation with organisational performance.

According to Dunphy and Griffiths, organisational learning provides an important route to performance, success and competitive advantage for the organisations.

The Concept of a Learning Organisation

Learning organisations are organisations that are skilled at creating, acquiring and transferring knowledge, and at modifying their behaviour to reflect new knowledge and insights [43]. Learning organisation is a very new concept in the field of management sciences. Learning organisation is a form of an ideal organisation that promotes and facilitates learning of all its members [44].

According to Yadav and Agarwal [45], the concept of learning organisation was introduced by Peter Senge in 1990. According to him, Peter Senge was a senior lecturer of leadership and sustainability at MIT's Sloan School of Management and was also the founding chairman of the Society of Organisational Learning. Senge defined a learning organisation as an organisation that encourages and facilitates learning in order to continually transform itself to survive and excel in a rapidly changing business environment".

Learning organisations are where learning and work are integrated in an ongoing and systematic manner in order to support continuous individual, group and organisational improvements. The implication of the above definition is that people that work in a learning organisation see learning as a continuous process and learn from virtually everything they do.

Griego, et al. [46] define learning organisation as an organisation that sought for transformation and excellence through interrupted and continuous organisational renewal and gradually mastering the subject matter". The process of creating learning organisations, there is a need to unlearn several uncooperative behaviours that are not favourable to the acquisition of knowledge and embrace new practices which have to do with: Learning Culture, Continuous Experimentation, Network Intimacy, Information Systems, Reward Systems, Human Resource Practices, and Leaders' Mandate.

Characteristics of learning organisation

According to Sery,

1) In learning organisation information runs smoothly at all levels of the organisation.

2) Learning is done simultaneously at four levels of individual, group, intergroup, and organisational level.

3) Learning organisation has bright and consensus visions about the future, growth and development of the organisation and the employees.

4) Learning organisation has a kind of reflective thinking and insights about people, organisation and management. According to Iles and Sutherland, learning organisation can be distinguished in terms of organisational structure, organisational culture, information systems, human resources practices, and leadership.

- **Organisational structure:** Learning organisations have managerial hierarchies that enhance opportunities for employee, career and service user involvement in the organisation.
- **Organisational culture:** Learning organisations have strong cultures that promote openness, creativity, and experimentation among members. They encourage members to acquire process and share information, nurture innovation and provide the freedom to try new things, to risk failure and to learn from mistakes.
- **Information systems:** Learning organisations require information systems that improve and support practice and that move beyond those used in traditional organisations where information is generally used for control purposes.
- **Human resources practices:** People are recognized as the creators and users of organisational learning. Accordingly, human resource management focuses on provision and support of individual learning. Appraisal and reward systems are designed to measure long-term performance and to promote the acquisition and sharing of new skills and knowledge.
- **Leadership:** Learning organisations, like all other form of an ideal organisation, depends heavily on effective leadership. Leaders communicate a plausible vision of the learning organisation, by providing the support and interpersonal helping needed to transform and sustain an organisation growth path.

Another unique way to identify a learning organisation is that managers and employees encourage work related learning, the exchange of information between employees to bring about innovation and continuous organisational improvements.

Furthermore, a learning organisation does not just learn for immediate utilization, but it also encourages anticipatory learning. This is a situation where an individual acquires new knowledge and apply that new knowledge in the performance of his task. Indeed, in a learning organisation, mistakes are not viewed as failures, rather they are viewed as opportunities to learn and improve on organisational outcomes.

"Learning organisation has a superior competitive advantage because they have brand equity which their competitors cannot match, and they attract and retain the best talent" [47].

Some studies have emerged linking capabilities as a source of competitive advantage and also accounts for the sustenance of these advantages [48]. It goes therefore to suggest that since capabilities can only be derived from learning; organisational learning has unquestionably become a source of competitive advantage.

In a learning organisation, the value of continuous learning is espoused, driven and modeled by the organisational heads, to the extent that every organisational member knows and is convinced that continuous learning is both a means to an end and an end itself.

In a true learning organisation, there is open and unrestricted

communication and people at all levels are included in most communications and there is an assumption that every member of the organisation “needs to know” what is happening at every point in time.

Further, there is a presumption that senior organisational leaders must show that they are continuously learning by communicating what they are learning as they learn. There is also reward for people that have shown they are indeed learning with both monetary and non-monetary reward like recognition, growth jobs, and promotions.

To be a learning organisation provides a competitive advantage: learning organisations are superior competitors, they have brand equity their competitors cannot match, and they attract and retain the best talent.

When we consider these features and advantages, virtually all organisations will strive to be one. But, the question remains, how many organisations are really a learning organisation?

Examples of some learning organisations

A look at some organisations in Nigeria based on the above characteristics of a learning organisation, show that most of them are not close to what is called a learning organisation. However, a few of them can be classified as fitting into the description of a learning organisation. Example of such an organisation in Nigeria includes Nigerian Breweries Plc and Guinness Nigeria Plc.

Nigerian breweries: has continuously improves products and develops new ones, always with the consumers at the center of its focus. It perceives unrecognized marketplace needs and creates new products to fill them. It makes it almost impossible for consumers to choose outside the wide product range. It ensures that all consumer segments are adequately served in terms of product and price variability. It engages all its members on continuous product innovations through extensive research and feedback from consumers. This is a confirmation of Pedler, Burgoyne, and Boydell postulated a learning organisation as “an organisation that facilitates the learning of all of its members and continuously transforms itself in order to meet its strategic goals” (p. 1)

Guinness Nigeria Plc: It continuously invents and implements new technologies and by recognizing the lifetime value of their customers, it treats them as long-term assets by maintaining and exceeding on customers’ expectations. Guinness has not so much expanded its produce base like Nigerian breweries, but it has constantly upheld its uniqueness by continuously learning to provide innovations into the already existing products to ensure that those brands are not lost to competitors. It focuses on personal mastery by continually having a deep, focused and personal vision, channeling energies to courses of action that seem viable, by building patience, and by seeing things objectively, and by not being in a hurry to launch new products [49].

Below are some examples of a learning organisation in the United States, according to CLO (2016).

General electric: Its robust learning center provides learning on a continuous basis by the organisational leaders, as these learning are transferred to other organisational members without restriction. It prides itself in imbibing continuous learning as part of its culture [50-53].

Goldman Sachs: It has learning center provides comprehensive learning to a large pool of its managerial staff on a continuous basis and the learning is transferred to other organisational members.

Microsoft: Microsoft successfully made the massive shift in mindset

from desktop computers to Internet when its marketplace changed. It has been steadfast in terms of continuous learning and improvement of processes.

Honda and Corning are two other examples of organisations that have imbibed the organisational learning culture. These companies have become adept at translating new knowledge into new ways of behaving. They have actively managed their learning process to ensure that it is continuous and well planned.

Summary and Conclusion

Organisational learning and Learning organisation are two different concepts. Organisational learning is a process that leads to an ideal state of a learning organisation. In fact, all learning organisations have organisational learning as part and parcel of their organisational culture. A learning organisation is one that helps to enhance organisational learning by creating structures, strategic fittings and strategic crafting.

Organisations need to constantly learn so that they will be able to cope with the future challenges that are brought about by dynamic technological changes. At the same time, it must continuously unlearn certain old assumptions that are no longer valuable and in tune. Once a learning organisation is developed, management must ensure that the tempo of learning must not be allowed to stop. In fact, the tempo must be increased on a continuous basis. Most times, when organisations achieve initial success, they tend to stop learning because they feel they have arrived, and that is the main reason why most companies fail after achieving initial success.

When organisations are young, they tend to be fluid, flexible and be willing to learn, but as they achieve initial success and grow, flexibility gives way to rigidity and there is loss of vigor and willingness to learn. It is that initial success that brought failure to them because they feel they have arrived and therefore, they see nothing new to learn. The people in the organisation relax and enjoy their fortune. They have lost environmental sensibilities and this has made them to be blind to new opportunities in the business environment. Before they realize what is happening, their competitors have already overtaken them and that marks their downfall.

Learning should be engrained as part of their organisation philosophy and core organisational value and culture. It is only by so doing that organisation will be able to face tomorrow when it actually comes. Furthermore, for effective double loop learning to occur at the organisational level, there is a need for organisational leaders to appreciate the value of learning as a panacea for organisational sustainability.

Finally, organisational leaders should make a gradual but holistic shift from their traditional role of figurehead, company spokesman, and resource allocator to a broader cross functional role of encouraging constructive dialogue, experimentation of ideas, which will create an environment capable of facilitating open communication.

References

1. De Geus A (1998) Planning as learning. *Havard Business Review* 66: 70-74.
2. Hussein N, Ishak NA (2006) Human resources practices and organisational learning capability: A proposed framework. Paper presented at the 3rd Human Resources Management Conference at Langkawi, Malaysia.
3. Morgan RE (2000) Market-based organizational learning. Research Paper No. 2001-10, Aberystwyth, Wales, United Kingdom. University of Wales.

4. Handy C (1990) *The age of unreason*. Boston: Harvard Business School Press.
5. Saadat V, Saadat Z (2016) Organizational learning as a key role of organizational success. 3rd International Conference on New Challenges in Management: Organization and Leadership. Social and Behavioral Sciences 230: 219-225.
6. Easter-Smith M, Crossan M, Nicolini D (2000) Organisational learning: Debates past, present and future. *Journal of Management Studies* 37: 784-796.
7. Fiol CM, Lyles MA (1985) Organisational learning. *Academy of Management Review* 10: 803-813.
8. Jones AM, Hendry C (1992) *The Learning organisation: A Review of literature and practice*, Centre for Corporate Strategy and Change, University of Warwick, Coventry, UK, and Sutherland, K. (2001) 'Managing change in the NHS', London: NHS Service Delivery and Organisation Research and Development.
9. Cyert R, March JG (1992) *A Behavioral theory of the firm* (2nd edtn), Wiley-Blackwell, USA.
10. Scott BB (2011) Organisational learning: A literature review. IRC Research Program, discussion paper no. 2011-02.
11. Day GS (1994) The capabilities of market-driven organisations. *Journal of Marketing* 58: 37-52.
12. Huber GP (1991) Organisational learning: the contributing processes and the literatures. *Organization Science* 2: 88-115.
13. Argyris C (1977) Double loop learning in organisations. *Harvard Business Review*. September-October: 115-125.
14. Malek-poor Gol Sefidi, S (2006) Learning organizations. *Journal of Bank and Eghtesad* 68: 18-35.
15. Alvani M (2008) *Public Management* (32nd edn), Ney publications, Tehran: Iran.
16. Senge P (2003) Taking personal change seriously: the impact of organisational learning on management practice. *Academy of Management Executive* 17: 47-50.
17. Mayo A (1994) *The power of learning: A guide to gaining competitive advantage*, IPD House, London.
18. Giesecke J, McNeil B (2004) *Transiting to the learning organisation*. Libraries at University of Nebraska-Lincoln.
19. Pentland BT (1992) Organizing moves in software support hot lines. *Administrative Science Quarterly* 37: 527-548.
20. Helfat CE, Raubitschek RS (2000) Product sequencing: co-evolution of knowledge, capabilities and products. *Strategic Management Journal* 21: 961-979.
21. Alcacer J, Gittleman M (2006) Patent citations as a measure of knowledge flows: The influence of examiner citations. *The Review of Economics and Statistics* 88: 774-779.
22. Power J, Waddell D (2004) The link between self-managed work teams and learning organisations using performance indicators. *The Learning Organisation* 11: 244-259.
23. Watkins KE, Marsick VJ (1993) *Sculpting the learning organisation: Lessons in the art and science of systemic change*. Jossey-Bass, San Francisco, USA.
24. Watkins KE, Marsick VJ (1996) *In action: creating the learning organisation*. Alexandria, VA: American Society for Training and Development.
25. Senge PM (1990) *The art and practice of the learning organisation*. The new paradigm in business: Emerging strategies for leadership and organisational change 126-138.
26. Gumusluoglu L, Ilsev A (2009) Transformational leadership, creativity, and organizational innovation. *Journal of Business Research* 62: 461-473.
27. Glynn MA, Lant TK, Milliken FJ (1994) Mapping learning processes in organizations: A multi-level framework for linking learning and organising. *Advances in Managerial Cognition and Organizational Information Processing* 5: 43-83.
28. Reilly AJ (1998) Three approaches to organizational learning. *The Pfeiffer Library*.
29. Fajana S (2002) *Human Resource Management: An Introduction*. Lagos: Labofin and Company.
30. Beckhard R (1969) *Organisation development: Its nature, origin, and prospects*. Reading, MA: Addison-Wesley.
31. Gomes G, Wajohn RM (2017) Organisational learning capability, innovation and performance: study in small and medium-sized enterprises (SMES).
32. Ramírez AM, Morale VJC, Rojas RM (2011) Knowledge creation, organizational learning and their effects on organizational performance.
33. Su C, Huang M, Contractor N (2010) Understanding the structures, antecedents and outcomes of organisational learning and knowledge transfer: A multi-theoretical and multilevel network analysis. *European Journal of International Management* 4: 577-601.
34. Reagans R, Argote L, Brooks D (2005) Individual experience and experience working together: Predicting learning rates from knowing who knows what and knowing how to work together.
35. Amir-Kabiri A (2006) *The approaches to organisation and management and organisational behaviour*, (1st ed). Tehran: Negah-e danesh publications.
36. Metcalfe S, Gibbons M (1989) Technology, variety, and organization. *Research on Technological Innovations-Management and Policy* 4: 153-193.
37. Pavitt K (1991) Key characteristics of the large innovating firm. *British Journal of Management* 2: 41-50.
38. Prahalad CK, Hamel G (1990) The core competence of the corporation. *Harvard Business Review* 68: 79-91.
39. Nelson RR, Winter SG (1982) *An evolutionary theory of economic change*. USA: Harvard University Press.
40. Dodgson M (1993) Organisational learning: A review of some literatures. *Organisational Studies* 14.
41. West P, Burnes B (2000) Applying organisational learning: lessons from the automotive industry. *International Journal of Operations & Production Management* 20: 1236-1252.
42. Khandekar A, Sharma A (2006) Organizational learning and performance: Understanding Indian scenario in present global context 4: 682-692.
43. Garvin DA (1993) Building a learning organisation. *Harvard Business Review* 43: 121-128.
44. Hussein N, Mohamad A, Noordin F, Ishak NA (2014) Learning organisation and its effects on organisational performance and organisational innovativeness: A proposed framework for Malaysian public institutions of higher learning. *Procedia-Social and Behavioural Sciences* 130: 299-304.
45. Yadav S, Agarwal V (2016) Benefits and barriers of learning organisation and its five discipline. *IOSR Journal of Business and Management* 18: 18-24.
46. Griego OV, Geroy GD, Wright PC (2000) Predictors of learning organisations: A human resource development practitioners perspective. *The Learning Organisation* 7: 5-12.
47. Wilhelm W (2017) *What are learning organisations, and what do they really do?* Human Capital Media.
48. Amit R, Schoemaker PJH (1993) Strategic assets and organisational rent. *Strategic Management Journal* 14: 33-46.
49. Appelbaum SH, Goransson L (1997) Transformational and adaptive learning within the learning organisation: a framework for research and application. *The Learning Organisation* 4: 115-128.
50. Argote L, Todorova G (2007) Organisational learning: Review and future directions. In GP Hodgkinson & J. K. Ford (Eds.), *International review of industrial and organizational psychology*, Wiley, USA, pp. 193-234.
51. Caldwell R (2005) Leadership and learning: A critical reexamination of Senge's learning organisation. *Systemic Practice and Action Research* 8: 39-55.
52. March J (1991) Exploration and exploitation in organizational learning. *Organization Science* 2: 71-87.
53. Mitleton-Kelly E (2003) 'Ten Principles of complexity & enabling Infrastructures' in complex systems and evolutionary perspectives of organizations: The application of complexity theory to organizations.