Organizational Learning and Effectiveness: The Case of Pakistani HEIs

Maqsood Haider
Assistant Professor, Department of Management Sciences, FATA University, FR Kohat, KP, Pakistan.
Email: dr.haider@fu.edu.pk

Muhammad Aamir
Assistant Professor, Department of Commerce, Bahauddin Zakariya University, Multan, Punjab, Pakistan.

Khawar Naheed
Assistant Professor, Department of Commerce, Bahauddin Zakariya University, Multan, Punjab, Pakistan.

Higher education is considered to be the lifeline of the development of any nation. These institutions are not only engaged in disseminating knowledge but are also engaged in shaping human capital for today’s knowledge-based economy. These higher learning institutions need to focus on their effectiveness if they want to be learning organizations. The present study focuses on organizational learning for attaining effectiveness. The sample of the study consists of 350 academic staff members of public sector HEIs belonging to Khyber Pakhtunkhawa province of Pakistan. Multiple regression analysis was performed on the data set. The overall results showed a significant direct effect of organizational learning upon organizational effectiveness. The results are significant for the top management.

Introduction

The knowledge economy requires skilled human capital with skills that match the fast-changing environment. Development of human capital requires that the institutions especially the higher education institutions (HEIs) entrusted with the task of imparting skills and knowledge to graduates at the learning organization stage. Thus, it becomes imperative that an enabling environment is ensured for learning & development of human resource especially catering to the needs of academic staff within the educational institutions.

The undeniable phenomenon of globalization has enhanced the interdependency of nations to the extent that the weaker nations have become more vulnerable to the happenings around the globe, compelling institutions and people alike to adapt themselves to the changing circumstances. Thus, organizational and individual survival in a competitive business landscape has become even more critical. Moreover, organizational learning can change employees’ behavior ensuring results that match organizational aspirations, greater adaptability to changing scenarios, innovation, and result-oriented employees (e.g. see Aydin & Ceylan, 2009).

In the past, the profit-oriented sector was the one focusing on effectiveness and higher performance, whereas not for profit sector was excluded because of its social welfare nature without realizing the costs associated with it. However, the the scenario has changed. Limited resource generation has compelled developing countries to focus on their capacity to make their educational institutions more effective in producing quality human capital for their development (Gonda, 2014). To attain competitive advantage requires organizations to be more effective in their learning strategies.

Patterson (1999) has pointed out that HEIs are the places where teaching and learning activities go simultaneously, which in addition to providing knowledge to the learners, should also act as a source of continuous learning. However, this can only be achieved if these institutions develop a culture that creates and transmit knowledge. In a changing world, the strategic response of these institutions is to develop new ideas and approaches and implement them in their way of working, thus, in the process of becoming learning organizations. Diamond (2011) has also asserted that institutions of higher learning derive their strength through their ability to adapt to the changing circumstances, which they do so through continuous learning.
The current study focuses on organizational learning as a source of attaining organizational effectiveness in the public sector HEIs. The study is a useful contribution to the existing literature on learning and effectiveness, as researchers mostly equate learning with performance.

**Literature Review**

In recent years, the notion of learning has taken the center stage in the organizational sciences literature, especially because of the survival challenges put forth by the competitive environment. McNiff and Whitehead (2000) also highlight that organizations need to adapt to the changing circumstances by linking their strategic values with the culture of learning. Yeo (2007) has stressed that organizations need to focus on learning to achieve competitive advantage by utilizing the collective experiences of their employees. Thus, Kenny (2008) emphasizes that educational institutions management needs to refocus for the purpose to facilitate high order organizational learning. This must be done through a broader set of criteria to evaluate the performance of higher education management on the ability to develop and resource organizational structures and processes for learning and effectiveness (Senge, 1990).

There is a plethora of researches on effectiveness and researchers have interchangeably used performance and effectiveness. However, performances in many studies have been taken in terms of financial constructs. The reason being majority of the research is conducted for the profit-oriented sector and little research is on not for profit or public sector. Also, for institutions in these two sectors, effectiveness depends on how they view their success and services and of what level. Thus, the use of term effectiveness becomes ambiguous as for each organization, effectiveness is internally set and is different for organizations even in the same sector. The problem is more prominent within education sector as the effectiveness criteria defined by each institution differ whether the organization belongs to private sector or to public sector and it becomes more pronounced in the absence of a framework that can be generalized for the whole education sector.

**Organizational Learning**

Researchers like Ewell (2001) highlight that learning could be taken as one of the measures of effectiveness as it is beneficial in terms of its flexibility and clarity and can be used for comparison purposes. In terms of learning, Kumar and Idris (2007) in their research on Malaysian higher education institutions focused on organizational learning and its relationship to institutional characteristics and knowledge performance and determined that learning is highly linked to HEIs' knowledge performance. Similarly, in another study it was found that organizational learning reduced employee turnover (see Austin & Harkins, 2008). There was a strong association of learning at organizational-level with organizational climate. The study concluded that OL with all its processes can be useful even in challenging circumstances.

Ayden and Ceylan (2009) developed an association of institutional organizational learning (OL) capacity with effectiveness. This OL capacity was measured through four orientation approaches namely systems, learning climate in the organization, knowledge acquisition and utilization and information sharing and dissemination; whereas, organizational effectiveness was measured through non-financial variables like customer satisfaction, employee satisfaction and financial variables of financial growth and performance. The outcomes of research indicate that a high level of organizational learning capacity will lead to high organizational performance as these organizations will have a better understanding of their environment and the management will put more emphasis on knowledge creation which in-turn will lead to innovation in the market.

A study by Yang (2007) conducted in hotel industry on learning and effectiveness found that sharing of knowledge between employees increased organizational effectiveness. The study further pointed out that sharing of knowledge between employees enhanced the learning capabilities of employees. Similarly, Yeo (2007) focused on manufacturing industry of Singapore and found the role of leaders to be most important in evolving an organizational culture of learning. The study further highlighted that continuous involvement of employees in participative decision making helps increase learning capabilities of organizations.

Law and Gunasekaran (2009) suggested a conceptual model of an organization’s learning. Their model is centered on the concept that organizational learning is a continuous goal-driven process. The model is composed of four main variables namely, drivers (leaders); enablers (motivation, individual, organizational culture); learning (project and action-based learning, team and individual learning) and outcome (performance, behavioral change). The authors highlight the fact that the most crucial factor in organizational learning is the top management itself that should initiate and drive the process of learning. But the top management alone is not enough, individuals who make up the organization are also equally important along with the culture of the organization for sustaining the learning process.
Rhodes, et al. (2008) while focusing on knowledge transfer and learning in technology firms in Taiwan found there was a clear linkage between knowledge transfer and learning with process innovation. Furthermore, the study also indicated that learning processes within organizations were more important for process innovation than networking in knowledge transfer and thus organizationally limited resources can be better utilized to improve organizational performance. In terms of organizational effectiveness, study by Yeo (2006) on higher education institutions in Singapore indicated that reflection motivated faculty and staff of institutions but also helps them in developing competencies and capabilities to overcome challenges and undertake challenging tasks. Thus, enhancing overall competitive advantage of employees over their competitors. Furthermore, the study also indicated that for developing shared vision and communal thinking communication were important factors.

In another study, Khandekar and Sharma (2006) focused on learning by examining the human resource practices adopted by organizations in IT and pharmaceutical organizations. The HR variables used for the study included; “training and learning”, “performance appraisal”, “rewards and incentives”, “supportive environment”, “teamwork”, “knowledge creation”, “quality management” and “flexibility”. For performance, the authors focused on financial performance, competencies, and image of the organization. The study results found a clear and significant linkage between HR practices adopted by the organizations for learning purposes and performance. The study indicated that organizations having friendly HR practices for developing learning culture, help in enhancing performance.

In a study regarding the roles of leaders in developing and enhancing learning within organizations, Popper and Lipshitz (2000) focused on structural and cultural roles of OL. The study indicated that the leaders are the main force that not only focuses on organizational learning but also creates such conditions that enhance effective learning within organizations.

Organizational Effectiveness

Baker (2002) while assessing quality and effectiveness mentioned the ambiguity of the process whereby it becomes problematic when effectiveness measures need to be identified. Each institution analyses its effectiveness in its own setting keeping in view the mission or vision stated by it. Therefore, developing and applying universal criteria to assess institutional effectiveness becomes impossible.

Owusu (2004) analyzing the organization’s culture with the public sector institutions’ performance found that good and poor performance was dependent on HR practices of rewards and benefits provided to employees and task clarity and specificity of employees’ jobs. Furthermore, the author further highlighted that organizational mission along with sound recruitment and selection and employee training and development was linked to good organizational performance. Similarly, Denison and Mishra (1995) focused on culture and effectiveness. The authors developed a four trait model of organizational culture by studying 764 organizations. Their study found that organizational cultural traits of involvement and adaptability were strongly linked to organizational flexibility and responsiveness to external environment for growth. The study further indicated that cultural traits of consistency and mission were more attuned to organizational vision and direction and were strong predictors of profitability of organizations. The authors concluded that all four cultural behaviors were strongly linked to organization’s effectiveness.

Chun and Rainey (2005) focused on goal ambiguity and the performance of public sector organizations of US. The authors indicated that organizations having ambiguous goals toward lower organizational performance and effectiveness. The study further indicated that governmental organizations having clear goals and objectives and employees familiar with those goals were the ones having high performance. The study highlighted that leadership of organizations should be clearer in developing organizational visions and clarify goal to their employees.

Pounder (2001) studied the organizational effectiveness and leadership. The study was centered around literature review and looked at the role of leadership in organizational performance. The organizational effectiveness criteria defined by the author in the study relates to the competing values framework. The criteria developed by the author and applicable to Hong Kong HEIs are productivity, consistency, communication and goal setting. Using same competing values framework, Trivellas and Dargenidou (2009) studied the Turkish university. The Trivellas study used the cultural categories namely “clan”, “adhocracy”, hierarchy and market. The study found that the predominant culture type followed by the university was hierarchy.

In another study conducted by Fey and Dineson (2003) used the model developed by Dineson and Mishra (1995) on foreign-owned companies in Russia. They studied 179 foreign operated firms in Russia. Effectiveness was measured through 5 point Likert scale using controlling variables (various demographics of respondents). Their results found that profitability of the firms was highly correlated with mission & consistency; innovation was highly linked with involvement & adaptability; whereas sale growth was linked to mission & adaptability.
In a study conducted by Cameron and Freeman (1991) on 334 higher educational institutes focused on culture and effectiveness while controlling for student strength, institutional control, and the presence of graduate programs. The institutional culture was assessed using competing values framework, while effectiveness was determined through student satisfaction with their institution and academics, career development after finishing their studies, institution's employee satisfaction and their professional career development and interaction, openness, resource generation, and organizational health. The study found that there exist no major differences between institutes having congruent cultures with those of non-congruent cultures. The study, however, the relationship existed between culture type and organizational effectiveness. Pounder (2002) found that due to increased accountability in public sector higher education institutions were under continuous pressure to perform.

The above-cited literature shows that majority of the research has been carried out in profit-oriented organizations, as the bottom line of such organizations is to remain abreast of external changes and adapt to them for their survival and also to remain ahead of their competitors. Very limited research has been carried out in the not for profit service sector like education. Most of the researchers agreed on the reality that success and learning are related to each other. The literature indicated that organizational learning didn't have a positive impact on performance but via various intermediating variables like culture, leadership, knowledge acquisition and transfer, etc. It is also worthwhile to note that majority of the studies are qualitative in nature that shows the complexity of defining organizational learning processes.

Study Framework
Keeping in view the aforementioned studies, the framework of this study is composed of organizational learning and effectiveness. The OL facets used in the study are authenticated by the Waitkins and Mersick (2003). The OL is composed of seven dimensions/factors as indicated. The OE is taken as dependent factor of this study. The study framework is presented in Figure 1.

Methodology
The current study used cross-sectional data from public sector universities of Khyber Pakhtunkhawa Pakistan. 10 public sector universities participated in the study. The universities were chosen from amongst the list of universities developed by higher education commission and the top ten public sector universities of Khyber Pakhtunkhwa were chosen.

For the study faculty members were chosen as they are critical assets of any educational institutions and have the knowledge and conceptual thinking power to become effective and efficient that ultimately contributes towards organizational effectiveness. Thus, faculty members as knowledge workers are most appropriate for the study. Thus, the population contained all the faculty members of participating government universities. The study sample consisting of 350 respondents was finalized to participate in current study via structured survey questionnaire. The questionnaires were equally distributed among the participating institutions. Respondents were assured of confidentiality.

Two questionnaires were used for the study. OL comprised of seven dimensions and the items were adapted from the work of Watkins and Marsick (2003). The OL items also known as DLOQ applied by other studies, such
as: Yang, Watkins and Marsick (2004); Jamali, Sidani and Zouein (2009), Basim, Sesen and Korkmazyurek (2007), Song, Joo and Chermack (2009), Kumar and Idris (2007), Akhtar, et al., (2017) and has been found valid and reliable in different western and Asian context. There was a total of 43 items for OL using never (1) to always (5) anchor rating scale. Organizational effectiveness items were adapted from the study of Pounder (2001) and used 5 point agreement anchoring. A total of 350 questionnaires were circulated among the ten participating institutions. These questionnaires were equally divided. The filled questionnaires received were 189. The overall response rate of 54 percent was achieved.

The reliability (Cronbach alpha coefficient) of the DLOQ came out to be 0.945. For organizational effectiveness, the Cronbach alpha coefficient is 0.863. The reliability results indicated that the instrument was valid and reliable for further analysis.

Results and Discussion

The correlations table (Table 1) shows that all the variables are positively and significantly correlated at \( p < 0.01 \). The table also exhibits no multicollinearity between any two variables.

Table 1. Inter- Correlations Among Variables

| Continuous Learning | Dialogue & Inquiry | Team Learning | Embedded Systems | Empowerment | Connection Systems | Leadership | Organizational Effectiveness |
|---------------------|-------------------|--------------|------------------|-------------|--------------------|------------|-----------------------------|
| Continuous Learning | 1                 | .785(**)     |                  |             |                    |            |                             |
| Dialogue & Inquiry  | .785(**)          | 1            |                  |             |                    |            |                             |
| Team Learning       | .752(**)          | .691(**)     | 1                |             |                    |            |                             |
| Embedded Systems    | .575(**)          | .601(**)     | .782(**)         | 1           |                    |            |                             |
| Empowerment         | .577(**)          | .691(**)     | .811(**)         | .862(**)    | 1                  |            |                             |
| Connection Systems  | .576(**)          | .625(**)     | .693(**)         | .678(**)    | .772(**)           | 1          |                             |

\( ** \) indicates \( p < 0.01 \)
Leadership

Organizational Effectiveness

** indicates significant at the 1% level (2-tailed).

To assess the model, linear regression was applied to the OL-OE model. The results are as follows (Table 2):

Table 2. Summary of OL-OE Model

| R      | R Square | Adjusted R Square | F(sig)          | β    | t-stat(sig) |
|--------|----------|-------------------|-----------------|------|-------------|
| .564(a)| .319     | .315              | 87.548(.000)    | .302 | 9.352(.000) |

a. Predictors: (Constant), Organizational Learning
b. Dependent Variable: Organizational Effectiveness

The model summary table reports about the present study model, i.e. 56.4 percent applicable. The value of R-square is 0.319 that shows that there is a 31.90% variation in organizational effectiveness caused by organizational learning.

To measure the effect of individual dimensions of an organization’s learning on effectiveness, multiple regression was conducted. The outputs of the multiple regression are as below (Table-3):

Table 3. Summary of OL-OE Model (Dimensions)

| R      | R Square | Adjusted R Square | F(sig)          | β    | t (sig) |
|--------|----------|-------------------|-----------------|------|---------|
| .773(a)| .597     | .582              | 38.375(.000)    | .063 | 1.252 (0.212) |
| CL     | .282     |                   |                 | .154 | 3.082 (0.002) |
| D&L    | .195     |                   |                 | .125 | 2.836 (0.005) |
| TL     | .048     |                   |                 | -.061| -1.190 (0.236) |
| ES     | -.195    |                   |                 | -.195| -4.349 (0.000) |
| Emp.   | -.048    |                   |                 | -.048| -0.857 (0.392) |

a. Predictors: (Constant), Leadership (Lead), Dialogue & Inquiry (D&I), Embedded Systems (ES), Continuous Learning (CL), Systems Connection (SC), Team Learning (TL), Empowerment (Emp.)
b. Dependent Variable: Organizational Effectiveness

The summary table is showing R = .773. The whole model is 77.3% fit. R square = .597 showing a variation of 59.7% caused by all the dimensions of organizational learning in organizational effectiveness. Adjusted R Square = 0.582. This is an improved version of R Square that is adjusted for the taken variable and for the number of observations. The table further indicates that out of 07 dimensions of organizational learning only dialogue & Inquiry, Team learning, embedded systems, and systems connections are significant. However, system connection has a negative impact on organizational effectiveness.

The present study is about the organization’s learning and organizational effectiveness. Organization’s learning is a holistic concept as Senge (1990) rightly pointed out. It is a continuous process that engulfs the externalities as well as the internalities of any organization. Watkins and Marsick (2003) proposed 07 dimensions of learning organization. These seven dimensions have been taken in the present study and their composite impact has been found on organizational effectiveness. These seven dimensions have been incorporated in Dimensions of Learning Organization (DLOQ). The present research strongly validates the constructs used in the scale used for the Pakistani environment. Future researches can use the scale to find out the impact of learning on organization’s performance. The outputs of the scale are consistent with the results of study of Yeng, Watkins, and Marsick (2004). The correlation coefficients also indicate that the organizational effectiveness is highly influenced by team learning.
dialogue, and inquiry and continuous learning dimensions of learning as compared to the other three. Within the seven dimensions correlations coefficients results are consistent with the studies of Yeng, Watkins, and Marsick (2004) and Song, Joo, and Charmack (2009).

Regarding the impact of learning on effectiveness, the results indicate that learning does influence effectiveness. The learning dimensions especially team learning, dialogue, and inquiry, embedded systems have higher impact as compared to the other dimensions. These outputs are in-line with the researches of Aydin and Ceylan (2009), Kumar and Idris (2006) and Chan, Lim, and Keasberry (2003).

Concluding Remarks
In the contemporary competitive environment, organizations whether belonging to the private sector or public sector have to effectively manage their resources both financial and human. It becomes more so important for the public sector organizations to manage their resources as their motive of operations is to serve the public and are being paid by the public purse. With an increased focus on accountability, transparency and good governance practices, it becomes imperative for public sector organizations to be efficient in their utilization of resources and learn from mistakes and readjust their strategies accordingly.

Retaining highly motivated teachers at HEIs is very crucial as they are the disseminators of learning opportunities to future leadership in a particular country. Hence, HEIs have to be more learning-oriented in their internal structures so that to be more effective in their goals and objectives. Higher educational institutes whether they belong to the public sector or to private sector need to adopt such strategies and build their internal capacities as would give them more competitive advantage. This study reports the fact that organization’s learning definitely affects the organization’s effectiveness; however, there are several other factors that affect the overall effectiveness of these organizations.

Researcher studies openly acknowledge the limitations/weaknesses of this research. The study focuses on only ten public sector universities of Khyber Pakhtunkhwa. For more meaning full results that can be generalized, a larger sample can be taken. Researchers have not taken into consideration the other dimensions of learning and effectiveness like culture, information technology, demographic trends, and etc. future researchers can take into account culture, satisfaction, climate, etc. and can check their impact on the effectiveness of the organizations. The study is limited to education sector, which is a non-profit oriented sector. Future studies can broaden their scope and can incorporate other sectors of the economy as well.
References

Akhtar, C. S., Awan, S. H., Ismail, K, & Naveed, S. (2017). Social capital and the learning organization: is it worth to engage in networking?. *International Journal of Learning and Change*, 9(3), 208-227.

Argyris, C. & Schön, D. (1978). *Organizational learning: A theory of action perspective*. Reading, Mass: Addison Wesley cited in Ngesu Lewis, Wambua Kyalo Benjamin, Ndiku Juda and Mwaka Marcella (2008). *Universities as learning organizations: Implications and challenges*. Educational Research and Review 3(9), 289-293.

Aydin, B. & Ceylan, A. (2009). Does Organizational Learning Capacity impact on Organizational Effectiveness? Research analysis of the metal industry. *Development and Learning in Organizations*, 23(3), 21-23.

Baiyin, Y., Karen E. Watkins & Victoria J. M. (2004). *The Construct of Learning Organization: Dimensions, Measurement and Validation*. Human Resource Development Quarterly, 15(1),31-55.

Boyett, I. (1997). *New Leader, New Culture, Old University*. Leadership and Organizational Development Journal, 17(5), 24-30.

Cameron, K.S. & Sarah J. F. (1991). *Cultural Congruence, Strength, and Type: Relationships to Effectiveness*. Research in Organization Change and Development, 5, 1991, 23-58.

Chan, C., Lynn C.A., Lim & Siew, K. (2003). *Examining the Linkages between Team Learning Behaviors and Team Performance*. The Learning Organization, Vol. 10, No. 4, pp. 228-236. Retrieved April 20, 2010 from www.emeraldinsight.com

Chun, Y.H. & Hal, G.R. (2005). *Goal Ambiguity and organizational Performance in U.S. Federal Agencies*. Journal of Public Administration Research and Theory, 15, 529-557.

Denison, D.R., & Aneil, K.M. (1995). *Towards a Theory of Organizational Culture and Effectiveness*. *Organizational Science*, 6(2) (March-April 1995),204-223.

Diamond, I. (2011). *Efficiency and Effectiveness in Higher Education Institutions: A Report by the Universities UK Efficiency and Modernisation Task Group*. London: Universities UK

Dima, J., Yusuf, S., & Charbel, Z. (2009). *The Learning Organization: Tracking Progress in a Developing Country*. *A Comparative Analysis Using DLOQ*. The Learning Organization, 16(2), 103-121.

Farrukh, M., & Waheed, A. (2015). Learning organization and competitive advantage-An integrated approach. *Journal of Asian Business Strategy*, 5(4), 73-79.

Fey, C. F. & Daniel, R.D. (2003). *Organizational Culture and Effectiveness: Can American Theory be applied in Russia?*. Organizational Science, 14(6), 686-706.

Gonda, M.G. (2014). Role of educational institutions in shaping the future of business and society. *Procedia Economics and Finance*, 11, 635-641.

Hayes, J. (2002). *Theory and Practice of Change Management*. Palgrave Macmillan (UK).

Jen-te Yang (2007). *The Impact of Knowledge Sharing on Organizational Learning and Effectiveness*. Journal of Knowledge Management, 11(2), 83-90.

Ji, H., & Song, B.K. (Brian) Joo, and Thomas J. Chermack (2009). *The Dimensions of Learning Organization Questionnaire: A Validation Study in a Korean Context*. Human Resource Development Quarterly, 20(1), 43-64.

Karsli, M.D. & Sahin, S. (2015). A Research for Measuring Administrative Effectiveness. *The Anthropologist*, 19(2), 479-489.

Kenny, J. (2008). Efficiency and Effectiveness in Higher Education: Who is accountable for what?. *Australia Universities Review*, 50(1), 11-19.

Khandekar, A. & Sharma, A. (2006). *Organizational Learning and Performance: Understanding Indian Scenario in Present Global Context*. Education and Training, 48 (8/9), 682-692.

Kris M. Y. Law and Angappa Gunasekaran (2009). *Dynamic Organizational Learning: A Conceptual Framework*. Industrial and Commercial Training, 41(6), 314-320.

Manila S. Austin and Debra A. Harkins (2008). *Assessing Change: Can Organizational Learning Work for Schools?* The Learning Organization, 15(2), 105-125.

McNiff, J. & Whitehead, J. (2000). *Action Learning in Organizations*. London: Routledge.

Naresh Kumar and Khairuddin Idris (2007). *An Examination of Educational Institutions’ Knowledge Performance: Analysis, Implications and Outlines for Future Research*. The Learning Organization, 13(1), 96-116.

Nejat, B.H., Harun, S. & Haluk, K. (2007). *A Turkish Translation, Validity and Reliability Study of the Dimensions of the Learning Organization Questionnaire*. World Applied Sciences Journal 2(4), 368-374.

Oppong, S. (2013). Should higher education institutions (HEIS) serve national economic needs? Why and why not. *Education Science and Psychology*, 29(3), 390-109.
Owusu, F. (2004). *Organizational Culture and Performance of Public Organizations in Ghana: Some Preliminary Findings*. Retrieved from http://www.public.iastate.edu/~fowusu/Accra%20Workshop/Wkshp_Appendix_E.pdf

Patterson, G. (1999). The Learning University. *The Learning Organization*, 6(1), 9-17.

Pounder, J. (2001). *New Leadership and University Organizational Effectiveness: Exploring the Relationship*. Leadership and Organization development Journal, 22 (6), 281-290

Pounder, J.S. (2002). Public Accountability in Hong Kong higher Education: Human Resource Management Implications of Assessing Organizational Effectiveness. The International Journal of Public Sector Management. 15(6), 458-474.

Psarras, J. (2006). Education and training in the knowledge-based economy. *VINE: The journal of information and knowledge management systems*, 36(1), 85-96.

Pudjiarti, E. S., & Suparjo, S. (2015). Creating Competitive Advantages through Organizational Learning Based on Knowledge Sharing Culture and Altruist Spirit in Private Universities. *International Journal of Management Excellence*, 5(2), 591-598.

Rhodes, J., Peter, L., Richard, Y.H., & Shih, C.F. (2008). *An Integrative Model of Organizational Learning and Social Capital on Effective Knowledge Transfer and Perceived Organizational Performance*. Journal of Workplace Learning, 20(4), 245-258.

Ronald L. B. (2002). *Evaluating Quality and Effectiveness: Regional Accreditation Principles and Practices*. The Journal of Academic Librarianship, 28(1), 3–7.

Senge, P. M. (1990). *The Fifth Discipline: The art and practice of the learning organization*. London: Random House.

Sohail, M. S., Daud, S. & Rajadurai, J. (2006). Restructuring a Higher Educational Institution: A Case Study from a Developing Country. *International Journal of Educational Management*, 20(4), 279-290.

Trivellas, P., & Dimitra, D. (2009). *Organizational Culture, Job Satisfaction and Higher Education Service Quality: The Case of Technological Educational Institute of Larissa*. The TQM Journal, 21(4), 2009, 382-399.

Watkins, K.E., & Victoria, J.M. (2003). *Demonstrating the Value of an Organization’s Learning Culture: The Dimensions of the Learning Organization Questionnaire*. Advances in Developing Human Resources, 5(2), 132-151

Yamashita, K. & Spataro, S. (2004). *Unstuck: A Tool for Yourself, Your Team, and Your World*. Retrieved from http://www.exinfm.com/board/complex_adaptive_systems.htm

Yeo, R. K. (2006). Learning Institutions to Learning Organizations: Kudos to Reflective Practitioners. *Journal of European Industrial Training*, 30(5), 396-419.

Yeo, R. K. (2007). Change in(ter)ventions to Organizational Learning: Bravo to Leaders as Unifying Agents. *The Learning Organization*, 14(6), 524-552.