

THE MEDIATION ROLE OF ORGANIZATIONAL COMMITMENT IN THE
RELATIONSHIP BETWEEN LEARNING ORGANIZATION DIMENSION AND
PERCEIVED KNOWLEDGE PERFORMANCE IMPROVEMENT

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A thesis submitted in fulfilment of the
requirements for the award of the degree of
Doctor of Philosophy (Management)

Azman Hashim International Business School
Universiti Teknologi Malaysia

OCTOBER 2018

Specially Dedicated to

My kind Relatives

ACKNOWLEDGEMENT

I

First, praise and thanks to God, the Almighty, for giving me time and health to pursue my graduate program. Thanks a lot to my supervisor Associate Professor Dr. Ishak Bin MAD Shah for his help, valuable guidance, patience, encouragement and continuous support throughout this research.

I would like to thank to my thesis committee panel, Professor Dr. Khalil Bin MD Nor, Dean of the faculty and Professor Madya Dr. Nik Mutasim Bin Nik AB. Rahman also Associate Professor Dr. Siti Aisyah binti Panatik Chairman. I appreciate their thoughtful comments to improve the quality of this work. In addition to my committee, I would like to thank Professor Dr. John Burgoyne and Dr. James Gaskin for their guidance. And also I would like to thank the clerical staffs of various faculties in the top public research universities who dedicated their time and participated in my survey for this research. Thanks also extended to all the staffs of faculty of Management for their cooperation.

I would like to thank to all my kind mother, father and other relatives who their encouragement was a great motivation for persistence and their financial help not forgettable. Also, I would like to thank to all others who helped me.

ABSTRACT

Malaysia is now in the new era of K-based economy, and global competition has emerged as an important issue. For Malaysia to attain its goal, it is a necessity for all organizations, including public and private organizations to be concerned with the better performance in regard to global competitiveness. Malaysia's universities, particularly research universities are not excluded from this matter. These universities need to seek new strategies that empower them to survive, and one of these strategies is learning organization. To date, there is no research that has ever investigated the mediation role of organizational commitment in the relationship between learning organization and perceived knowledge performance improvement. The objective of this research is to investigate the mediation role of organizational commitment in the relationship between learning organization and perceived knowledge performance improvement in five public research universities (UTM, UM, UPM, UKM, USM) in Malaysia from the clerical staff perception. The method of this study is quantitative survey and the instrument is adopted from short form of Dimensions of Learning Organization Questionnaire (DLOQ) which was asserted by Yang, Watkins and Marsick (1993). The method of quantitative data collection was conducted through paper based survey. Statistical package for social sciences (SPSS) and Structural Equation Modeling (SEM) were used to analyze the data. The sample for this study is drawn through probability sampling while stratified random sampling is chosen for selecting the respondents. This study found learning organization and organizational commitment have positive significant relationship with perceived knowledge performance. The organizational commitment acts as a mediator between learning organization and perceived knowledge performance. The results of the research strengthen the concept of the relation between organizational commitment and learning organization.

ABSTRAK

Sekarang Malaysia berada dalam era baru yang berasaskan ekonomi pengetahuan, di mana persaingan secara global telah muncul sebagai isu yang penting. Bagi mencapai matlamat tersebut, ia menjadi satu keperluan untuk semua organisasi termasuk organisasi awam dan swasta untuk mengambil berat tentang prestasi yang lebih baik dalam hal berkaitan dengan daya saing global. Universiti penyelidikan tidak terkecuali dalam hal ini. Universiti perlu mencari strategi baru bagi mengekalkan kedudukan prestasi mereka. Salah satu dari strategi ini adalah menerapkan organisasi pembelajaran. Setakat ini belum ada penyelidikan yang telah menyiasat peranan pengantaraan komitmen organisasi dalam hubungan di antara organisasi pembelajaran dan prestasi peningkatan pengetahuan. Objektif kajian ini adalah untuk menyiasat peranan pengantaraan komitmen organisasi dalam hubungan di antara organisasi pembelajaran dan prestasi peningkatan pengetahuan di lima universiti penyelidikan awam (UTM, UM, UPM, UKM, USM) di Malaysia dari segi persepsi kakitangan perkeranian. Kaedah kajian ini merupakan kajian kuantitatif dan instrumen ini diadaptasikan dari ringkasan Soal-selidik Dimensi Organisasi Pembelajaran (DLOQ) yang telah disarankan oleh Yang Watkins dan Marsick (1993). Kaedah pengumpulan data kuantitatif telah dijalankan melalui pengedaran borang soal selidik. Pakej Statistik untuk Sains Sosial (SPSS) dan Permodelan Persamaan Struktural (SEM) telah digunakan untuk menganalisis data. Sampel kajian ini diambil melalui hasil kajian kebarangkalian manakala persampelan rawak berstrata digunakan untuk memilih responden. Kajian ini mendapati organisasi pembelajaran dan komitmen organisasi mempunyai korelasi yang positif dengan prestasi peningkatan pengetahuan. Kajian ini mendapati adanya peranan pengantaraan komitmen organisasi dalam hubungan di antara organisasi pembelajaran dan prestasi peningkatan pengetahuan. Hasil dari kajian ini akan mengukuhkan konsep hubungan di antara komitmen organisasi dan organisasi pembelajaran.

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LIST OF ABBREVIATIONS

AVE	-	Average Variance Extracted
CL	-	Continuous Learning
CR	-	Composite Reliability
CT	-	Collaboration in Team
DLOQ	-	Dimension of Learning Organization Questionnaire
GLCs	-	Government-Linked Companies
HRD	-	Human Resource Development
E	-	Empowerment
ICT	-	Communication Technology
ICT	-	Information and Communication Technology
ID	-	Inquiry and Dialogue
INTAN	-	The National Institute of Public Administration
IPT	-	Local Institutions of Higher Learning
IPTA	-	Public Institutions of Higher Learning
IPTS	-	Private Institutions of Higher Learning
ITM	-	Institut Teknologi Mara
KP	-	Perceived Knowledge Performance Improvement
KPT	-	Ministry of Higher Learning
LO	-	Learning Organization Culture
NDP	-	National Development Policy
NEP	-	New Economic Policy
NVP	-	National Vision Policy
OC	-	Organizational Commitment
OCA	-	Affective Commitment
OCC	-	Continuance Commitment
OCN	-	Normative Commitment

OPP	-	Outline Perspective Plan
PHEIs	-	Initial Concern of Both Private
PSPTN	-	National Higher Education Strategic Plan
OCQ	-	Organizational Commitment Questionnaire
OCS	-	Organizational Commitment Survey
R& D	-	Human Resources Development
R & D	-	Research and Development
S& D	-	Science and Technology
S & T	-	Science and Technology
SC	-	System Connection
SL	-	Strategic Leadership
ST	-	System to Capture Learning
THES	-	Times Higher Education Supplement
UDM	-	Darul Iman University of Malaysia
UIAM	-	International Islamic University Malaysia
UiTM	-	Mara University of Technology
UKM	-	Universiti Kebangsaan Malaysia
UKM	-	University of Malaysia Kelantan
UM	-	University of Malaysia
UMP	-	University of Malaysia Pahang
UMS	-	University of Malaysia Sabah
UMT	-	University of Malaysia Terengganu
UniMAP	-	University of Malaysia Perlis
UNIMAS	-	University of Malaysia Sarawak
UPM	-	Putra University of Malaysia
UPNM	-	National Defence University of Malaysia
UPR	-	Public Research Universities
UPSI	-	Sultan Idris University Of Education
USIM	-	Islamic Science University of Malaysia
USM	-	Science University of Malaysia
UTeM	-	University of Technical Malaysia Melaka
UTHM	-	Tun Hussein Onn University of Malaysia
UTM	-	Teknologi Universiti of Malaysia
UUM	-	Northern University of Malaysia

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CHAPTER 1

INTRODUCTION

1.1 Introduction

The significance of learning was first stated by the Chinese philosopher, Confucius (551-479BC). He believed that everyone would and should benefit from learning. Although the concept of learning organization has been discussed for almost twenty years, for instance the concept was studied by Hayes and Abernathy (1980) in the USA, and Pedler *et al.* (1988) in Britain, the roots of learning organization can be traced back to the 1950s and the 1960s (Johnson, 2002) to the study of Cyert and March (1963) and Cangelosi and Dill (1965), and recently the study of Song *et al.* (2013), Watkins and O' Neil (2013), Marsick (2013), Watkins Song and Chermack (2008), Tynjaia (2008), and Jensen (2005). The terms organizational learning and learning organization are sometimes used interchangeably. However, organizational learning is a concept applied to explain the certain types of activity that take place in the organization while a learning organization refers to the organization itself (Tsang, 1997). Pedler *at al.* (1991) defined learning organization as “an organization that facilitates the learning of all of its members and continuously transforms itself in order to meet its strategic goals” (p.27). From the integrative approach, learning organization is defined as “an organization that is characterized by continuous learning for continuous improvement, and by the capacity to transform itself” (Watkins and Marsick 1993, 1996, p. 93-94).

Organizations confront unpredictable changes and fluctuating environment due to the information age, knowledge economy and technological progression, so the best way for organizations to maintain competitive advantage is getting ready to adapt, change and improve (Kim and Mauborgne, 2005; Joo, 2007). Organizations continuously search for new strategies to ensure their organizational success or survival. The organizational learning is the strategy for organizations to adapt to the turbulent change (Pfeffer, 1994). In today's highly globalized world, the organizations need to adapt to the turbulent change and the universities which are the origin of knowledge have no exception.

The key elements of learning and change process are vital for transforming universities from traditional forms into reformed and developmental ones, and for creating opportunities which are necessary for improvement in performance capacity and constant renewal (Gilley and Maycunich, 2000). Regarding changing Malaysia into knowledge-based economy and meeting the mounting demand for new skills and knowledge, it is important that Malaysian universities continuously adapt to increasingly competitive environments, nurturing learning, and continuously developing the capacities to sustain the lifelong learning (Ujang, 2009, p.37).

1.2 Background

1.2.1 The Evolution of Higher Learning in Malaysia

Since the focus of this study is on public research universities in Malaysia, it is important that the evolution of higher learning from early stage to globalized phase be discussed. In the recent decade education has become the axis of attention for Malaysia's National Mission as its significance was written in the National Education Philosophy (Ujang, 2009, p.43):

“Education in Malaysia is a constant effort towards the growth of individual potential in a comprehensive and integrated way so as to create a balanced and harmonious person in terms of intellectual, spiritual, emotional and physical aspects,

based on a trust and obedience to God. This effort is for the purpose of creating Malaysians who are knowledgeable, responsible and capable of attaining well-being as well as contributing to the harmony and peace of society and nation.”

The rapid growth which has taken place in the last ten years has exceeded the entire forty years of growth that had occurred before, which can be seen in increasing the number of local Institutions of Higher Learning (IPT), increasing in number of students and new courses, as well as the establishment of Private Institutions of Higher Learning (IPTS). This trend started during the financial crisis of 1997 when thousands of Malaysians students abroad had to be placed at local Institutions of Higher Learning (IPT). The government increased the number of students in Public Institutions of Higher Learning (IPTA), and pays more attention to Private Institutions of Higher Learning (IPTS) to provide courses at the degree level. This rapid development was the result of the governmental policies, the National Mission and the 9MP (Ninth Malaysia Plan) towards a proactive higher learning sector (Ujang, 2009, p.48).

For transforming the local institutions of higher learning to become more competitive and to act as the channel to increase capacity building, human capital and knowledge excellence as the previous Prime Minister Datuk Seri Abdullah Ahmad Badawi's wished, the Ministry of Higher Learning (KPT) succeeded in submitted the draft of the National Higher Education Strategic Plan which was launched on 27th August 2007. The Strategic Plan serves the purpose of bringing great changes to the national higher learning system. Its impact was focused on enhancing academic productivity in terms of research, publications, and internationalization that have placed the local Institutions of Higher Learning (IPT) on the map of higher learning destinations at the international level. In addition, the government's commitment was apparent in the form of allocation amounting to 18.4 billion RM in the Ninth Malaysian Plan, especially for the higher learning sector which was 50 percent higher than the allocation during the term of the Eight Malaysian Plan (Ujang, 2009, p.57).

From the historical perspective, the development of higher learning in Malaysia started since the pre-independence era. It was pioneered by the Malaysian educated who got their higher education abroad, in Western Asia or England before returning home to develop secondary level and college education. Traditional religious schools (*sekolah*) and *Madrasah* were set up by groups of *ulama* that received higher education in Egypt and Saudi Arabia (Ujang, 2009, p.47).

This development became more apparent in the post-independence period. In this period of time the focus of higher education changed in line with the country's stage of development: from providing diploma and bachelor degree programmes at the early stage of the establishment of local university at the end of the 1960s to advanced degree programmes at the end of the 1980s.

According to Ujang (2009), Chang Da (2007), Haji Ahmad (1998), and Grapragasem *et al.* (2014) the development of institutions of higher learning in the post-independence era can be divided into four phases, namely:

- a) Early phase. Focused on providing institutions and facilities to meet the needs of human capital in a Particular field. This phase was directed at courses like human science, administration, professional and teaching through the establishment of the Kula Lumpur campus of UM on 1st January, 1962, and University Science of Malaysia (USM) in 1969.
- b) Expansion phase. The focus was to fulfill the objectives of the national development policy such as in terms of Bumi putera participation in various sections and providing higher learning facilities using various finance models, including private fund and government-linked companies (GLCs). This phase was implemented through the establishment of Agriculture University of Malaysia (Universiti Pertanian Malaysia or UPM) on 29th October, 1971, National University Malaysia (Universiti Kebangsaan Makaysai or UKM) on 18th May, 1970, MARA Institute of Technology (Institut Teknologi MARA or ITM) on 14th October, 1967, and UTM on 1st

April, 1975. Other universities and institutions of higher learning (Institusi Pengajian Tinggi or IPTs) at various levels were also established by taking into account various factors and backgrounds, such as provincial development and educational focus. Then the existence of the private institutions of higher learning (Institusi Pengajian Tinggi Swasta or IPTS) appeared at the end of the 1990s.

- c) Consolidation phase. This phase of providing education at the level of undergraduate learning which started at the end of 1980s. This phase was important because during this time the undergraduate programmes started on a large scale basis in Malaysia, submitting the policy of sending students abroad in almost all disciplines of knowledge at the level of advanced degree, which was previously practiced since the early 1970s. This is now very apparent among academics at the local universities that require an advanced degree as a condition of service.
- d) Globalization phase. This phase was framed as such to enable higher learning institutions in Malaysia to be compared at the international level. Specifically, this phase was reordered in the National Higher Education Strategic Plan (Pelan Strategik Pengajian Tinggi Negara or PSPTN) towards strengthening quality and visibility in terms of the quality of higher learning and intellectual development as a whole.

All four phases had been framed and implemented in line with the national development plan according to the progress of the time and socio-economic background. In this matter, the most apparent improvement in terms of the establishment of new institutions was during the expansion phase, which was an implementation of the New Economic Policy (NEP) (Ujang, 2009, p.77).

Malaysia actually has succeeded in its endeavors for supporting higher education and generating graduates who have the ability to meet the needs of human resource capital for its economic growth in the last three decades. As of now, there are 20 public higher education institutions, consisting of (4) comprehensive

universities, (12) focused universities and (5) research universities. The brief definitions for each university are as follows (Ujang, 2009, p.87):

1. Comprehensive universities: These universities propose different fields of study for all status of education including pre-undergraduate, undergraduate, and post graduate degrees. These are Mara University of Technology (UiTM), University of Malaysia Sarawak (UNIMAS), International Islamic University Malaysia (UIAM), University of Malaysia Sabah (UMS).
2. Focused universities: These universities concentrate on particular fields such as technical, management, education and defense. Northern University of Malaysia (UUM), University of Malaysia Pahang (UMP), Sultan Idris University of Education (UPSI), Tun Hussein Onn University of Malaysia (UTHM), University of Malaysia Perlis (UniMAP), University of Technical Malaysia Melaka (UTeM), Darul Iman University of Malaysia (UDM), National Defense University of Malaysia (UPNM), University of Malaysia Kelantan (UKM), Islamic Science University of Malaysia (USIM), University of Malaysia Terengganu (UMT) are in this type of university.
3. Research universities: These universities concentrate on research activities and teaching based on research, development, and commercialisation (R & D & C). These universities include of the following five public universities: University of Malaysia (UM), National University of Malaysia (UKM), Teknologi Universiti of Malaysia (UTM), Putra University of Malaysia (UPM), Science University of Malaysia (USM).

Research universities in Malaysia are public universities identified by the cabinet on 11th October 2006 to become distinguished educational and research hub. It is expected that the recognition granted to these five universities of Malaysia, UM, UKM, UPM, UTM, USM as research universities, will be acted as the pillars in endeavors to boost the position of local Public Higher Education Institutions at the international level. These universities have the following prominent key elements 1)

The field of study concentrating on research 2) The significance of competitive entry requirements 3) The importance of the lecturers' quality 4) Sustaining the ratio of 1:1 of postgraduates to undergraduates. In all research universities the objectives are as follows: 1) To increase research, development and commercialization activities 2) To boost the number of the postgraduates and post doctorate fellows 3) To raise the number of academic staff with PhD qualifications 4) To generate and enhance centres of excellence 5) To raise the number of foreign students and increase the international ranking of Malaysian Higher Education Institutions. The mission which is followed by research universities is to become the nation's growth engines, propose opportunities for students and academics who like to exchange ideas, and guide research in a supportive environment which will encourage exploration and creativity in the exploration of knowledge and producing of wealth, therefore enhancing the quality of life (Ujang, 2009, p.87).

The government of Malaysia is now stressing the development and research was done by the local universities especially research universities for the progression of the nation's economy. Therefore, research universities have to try harder towards improving its ranking among the prominent universities of the world as mentioned in the Times Higher Education Supplement (THES). Moreover, this is in line with the aim of the National Higher Education Strategic Plan which stated to have at least three Higher Education Institutions listed in the top 100 universities and one among the top 50 universities in the world by year 2020 (Ujang, 2009, p.87).

1.2.2 The concept of Learning Organization within Organizations and Universities in Malaysia

In line with the different developments which occurred after implementing Malaysia's ninth plan (2006-2010) such as sustaining economic progress, social justice, political stability and quality of life in Malaysia, and the great demand of the worldwide competition for instance emerging the new technologies, increasing in customers, and the expansion of information, the organizations' managers in Malaysia should be equipped with the skills to predict the future, where the

acceptance of the new opportunities and generating of the greater resilience is stressed. The Malaysian organizations should accomplish essential efforts to change themselves into organizations which are capable of adapting change in their organizations and surviving in the worldwide business environment. These abilities are relevant to the learning capability of organizations (Ahmad and Yunus, 2012).

The concept of learning organization in Malaysia is in its early stage. Only few studies have been done about learning organization in Malaysian organizations, indicating the lack of empirical research in this area. The research about INTAN (The National Institute of Public Administration) resulted in the transformation of INTAN into a learning organization (Malek Shah, 2005). Another research focused on three individual organizations in different fields, service oriented, economic development, and research and development fields to indicate how the Malaysian organizations understand the concept of learning organization. The study indicated that some evolving ideas on the learning organization concepts can be observed in all three organizations. The research found that understanding of learning organization was related to the organization's own identity, that what type of the organization is (Ahmad and Yunus, 2012).

The other study in the Malaysian public sector examined the individual perception of the innovation implementation and the learning culture concurrently in the context of an ongoing innovation implementation in the 11 Malaysian public sector organizations to find the influence of organizational context in the relationship between learning organization and the innovation implementation. The study found that although the learning culture of the organization has positive relation with the innovation implementation but the organizational context has an effect on this relationship (Sta. Maria, 2003).

The other research focused on two public sector organizations that tried to provide some practical applications and implications of organizational learning in the Malaysian public sector. The objective of the study was to implement the learning organization in Malaysian public sector (Sta. Maria, 2002). The paucity of learning organization study in Malaysia can be observed. One research investigated the

learning organization culture in Malaysian private higher learning institutions among the managers to explore relationships between learning organization dimensions and knowledge performance (Kumar and Idris, 2006). The other research investigated the perceptions of the academic librarians on the practices of team level learning in public and private university libraries in the Klang Valley of Malaysia. The study found that the academic librarians have positive perceptions on the practices of team level learning (Norliya and Azizah, 2007).

The investigation of the concept of learning organization in public research universities of Malaysia is new, so this research paved the way for researchers concerned with this matter. Nevertheless, some organizational theorists propose that universities are rigidly hierarchical, intensively maintain their status quo, structurally firm, and resistant to transformation (Lick and Kaufman, 2000, 2001). They manage bureaucratically which social learning is seemed as an ideal than practical theme. On the other hand, regarding to the objective of making Malaysia the centre of educational excellence in the region and in addition to assure that adequate knowledge workers are attainable for changing Malaysia into a knowledge-based economy and meeting the mounting demand for new skills and knowledge, it is important that Malaysia universities adapt to increasingly competitive environments, continuously nurture learning, and continuously develop their capacities (Kumar and Idris, 2003).

Regarding the importance of learning organization implementation in Malaysian organizations, it was essential for the current study to understand the perceptions of employees towards learning organization. The study about learning organization dimensions cannot be done in higher education institutions without knowing the employees' perceptions. As few studies have been done to determine the employees' perceptions of learning organization dimensions in higher education institutions, the researcher found this matter important to focus on (Norliya and Azizah, 2007; Ali, 2012).

Some studies have been carried out on the mediating role of organizational commitment in the relationship between learning organization dimensions and

different non-financial performance indicators (Rose *et al.* 2009; Tseng, 2010; Ialamet *al.* 2013; Islamet *al.* 2014; Islam *et al.*, 2015; Islam *et al.*, 2016; Trang *et al.*, 2013; Pak, 2007). The study by Rose *et al.* (2009) indicated the mediating role of organizational commitment on the relationship between learning organization dimensions and work performance. The study by Tseng (2010) indicated the mediating role of organizational commitment on the relationship between learning organization dimensions and organizational effectiveness. A study by Islam *et al.* (2015), showed the mediator role of affective commitment on the relationship between learning organization culture, perceived organizational support, and turnover intention. Another study by Islam *et al.* (2016) mentioned the mediating role of affective commitment on the relationship between learning organization culture and organizational citizenship behavior and turnover intention. The study by Trang *et al.* (2013) confirmed the mediating role of organizational commitment on the relationship between learning organization and employees' performance. Pak (2007) indicated the role of organizational commitment as a mediator on the relationship between learning organization and managers' work performance. The review of the previous studies indicated these studies focused on different organizational performance indicators, such as innovation, employees' performance, and turnover intention but the study of the relationship between learning organization dimension and organizational commitment as the mediator and knowledge performance improvement as an important organizational performance indicator has been neglected, so the current study was done to fill this gap.

1.3 Problem Statement, Research Gap and Research Opportunity

Since organizations confront unpredictable changes and fluctuating environment which have appeared due to information age, knowledge economy and technological progression, the best way for organizations to maintain competitive advantage is a readiness to adapt, change, and improve (Kim and Mauborgne, 2005; Joo, 2007). Organizations continuously search for new strategies to ensure about the organizational success or survival. The learning organization is the strategy for organizations to adapt to turbulent change (Pfeffer, 1994). The learning organization

has been mentioned as a strategy for developing organizational performance (Weldy, 2009). Regarding the significance of this matter for all organizations, public and private, many scholars tried to study the issue theoretically but few researchers have tried to investigate this subject empirically. Through reviewing the previous literatures, the most substantial issue which can be observed is the lack of practical studies in the field of learning organizations and particularly validating and investigating the applicability of the DLOQ (Dimension of Learning Organization Questionnaire) measurement for learning culture.

Since 1990, the implication of the learning organization phenomenon for organizational success has been extensively investigated and consequently there was tremendous growth in literature pertaining to the concept of the learning organization. However, most literatures are descriptive or perspective in nature and the efforts to quantify the notion have been rare (Argyris and Schon, 1996; Pedler *et al.*, 1991; Campbell and Cains, 1994; Dibella, 1997; Ellinger *et al.*, 2002, 2003; Garvin, 1993, 2000; Griego *et al.*, 2000; Johnson, 2002; Miolanen, 2001; Roth and Kleiner, 1995; Somerville and McConnell-Imbriotis, 2004; Thomsen and Hoest, 2001; Yang, 2003; Yang *et al.*, 2004).

The study about learning organization dimensions cannot be done in higher education institutions without knowing the employees' perceptions. As few studies have been done to determine the employees' perceptions of learning organization dimensions in higher education institutions, the researcher found this matter important to focus on (Norliya and Azizah, 2007; Ali, 2012). In the study of learning organization, it is important to concern on the influence of demographic characteristics of employees. Few studies have been carried out on the influence of demographic characteristics of employees on learning organizations dimensions (Lim, 2003; Wang *et al.*, 2007; Thakur and Chaudhuri, 2015).

There are few studies which have examined the differences in perceptions of learning organization dimensions based on non-academics' age levels (Wang *et al.*, 2007, Nazri and Pihie, 2012, Tseng, 2010). Wang *et al.*, (2007) study investigated the differences in perceptions of learning organization culture based on different

levels of age. Nazri and Pihie (2012) studied the level of learning organization dimensions and differences based on demographics such as age and education level. Tseng (2010) carried out a survey to find out the effects of demographic characteristics of age and education on learning organization dimensions. There are few researches which have examined the differences in perceptions of learning organization dimensions based on non-academics' education levels (Nazri and Pihie, 2012; Tseng, 2010). There are few studies that have examined the differences in perceptions of learning organization dimensions among employees based on the different levels of working years in the current job (Lim, 2010; Thakur and Chaudhuri, 2015). The lack of study can be observed in examining the differences in perceptions of learning organization dimensions among employees based on the different hours devoted to learning new skills in the current job.

Many studies have been done by applying Dimensions of Learning Organization Questionnaire (DLOQ) in different cultural contexts of USA, Spain, China and Taiwan (Ellinger *et al.*, 2002; Hernandez, 2000; Lien *et al.*, 2006; Yang *et al.*, 2004; Zahang *et al.*, 2004). Since there are scarcity of studies in Asia Pacific region, especially in the country of Malaysia for obtaining the evaluation of DLOQ in terms of validity and applicability in the higher education context, therefore this issue must be stressed strongly.

A review of the literature reveals that learning organization is likely to lead to increase organizational performance. The empirical studies of Chaston *et al.* (1999); Ellinger *et al.* (2002, 2003); Hedges (1997); Jashapara (2003); Phillips (2003); Yeo (2002a, 2000b, 2003a, 2003b) have proved that learning organization has a positive relation with organizational performance. Learning organization comprises seven dimensions which are crucial to optimize organizational performance improvement (Simons *et al.*, 2003, Marsick and Watkins, 1999, Watkins and Marsick, 2003; Yang *et al.*, 2004; Yeo, 2002b).

There are empirical studies which assessed the relationship between learning organization and different performance indicators (Ellinger *et al.*, 2002; Watkins *et al.*, 1997; and Yang *et al.*, 2004; Song, 2008) and affirmed positive

relationship between learning organization and performance. Studies such as McHargue (1999); Ellinger *et al.* (2002); Davis and Daley (2008); Chajnecki (2007); and Demers (2009) focused on the relationship between learning organization dimensions and performance outcomes.

In certain literature, it is believed that perceived knowledge performance improvement is one of the organizational performance variables (Song *et al.*, 2013; Lee and Choi, 2003; Maeques and Simon, 2006; Visser and Stuter, 2007; Ho, 2008; Rhodes *et al.*, 2008; Wei, 2009; Liao *et al.*, 2009; Kim and Gong, 2009; Pierre *et al.*, 2009). The studies of Marsick and Watkins (2003); Davis and Daley (2008) proved that learning organization has positive relation with perceived knowledge performance improvement.

Kumar and Idris (2006) tested the mediating role of organizational commitment in the relationship between learning organization and perceived knowledge performance improvement among vice chancellors in 74 private colleges in Malaysia and confirmed the mediating role of organizational commitment in the relationship between learning organization and perceived knowledge performance improvement. The study of Kumar and Idris (2006) indicated the influence of learning organization dimensions in the relationship were positive significant.

The variable of organizational commitment was chosen since many studies have proposed that learning organization acts as an antecedent of organizational commitment and organizational performance outcomes, such as perceived knowledge performance (Ellinger *et al.*, 2002; Wang, 2005). In certain literature, learning organization is believed as an antecedent of organizational commitment (Najaf *et al.*, 2012).

Organizational commitment as an important variable is chosen for the conceptual model. Some studies (Johnson and Chang, 2008; Luthans *et al.*, 1985; Samad, 2005; Bartlet, 2001; Mathieu and Zajac, 1990; Meyer and Allen; 1997; Usefi, 2013) presented the positive relationship between organizational commitment and performance in the organization. This research expands the literature on learning

organization notion by adding organizational commitment variable as a mediator in the relationship between learning organization and perceived knowledge performance improvement.

The study by Kumar and Idris (2006) indicated the mediating role of organizational commitment in the relationship between learning organization and perceived knowledge performance improvement among vice chancellors in private collages in Malaysia and mentioned it is necessary that the mediation role of organizational commitment in the relationship between learning organization and perceived knowledge performance improvement be investigated in public and public research universities. Some studies have been carried out on the mediating role of organizational commitment in the relationship between learning organization dimensions and different performance indicators (Rose *et al.* 2009; Tseng, 2010; Islam *et al.* 2013; Islam *et al.* 2014; Islam *et al.*, 2015; Islam *et al.*, 2016; Trang *et al.*, 2013; Pak, 2007). The study by Rose *et al.* (2009) indicated the mediating role of organizational commitment in the relationship between learning organization dimensions and work performance. Tseng (2010) studied the mediating role of organizational commitment in the relationship between learning organization dimensions and organizational effectiveness.

Islam *et al.*'s (2013) study confirmed that organizational commitment performed the role of mediator in the relationship between learning organization culture, leader member exchange, and turnover intention. In another study, Islam *et al.* (2014) indicated the mediating role of normative commitment in the relationship between learning organization culture and customer satisfaction. A study by Islam *et al.* (2015) showed the mediator role of affective commitment in the relationship between learning organization culture, perceived organizational support, and turnover intention. Another study by Islam *et al.* (2016) mentioned the mediating role of affective commitment in the relationship between learning organization culture and organizational citizenship behavior and turnover intention.

The study by Trang *et al.* (2013) confirmed the mediating role of organizational commitment in the relationship between learning organization and

employees' performance. Pak (2007) indicated the role of organizational commitment as a mediator in the relationship between learning organization and managers' work performance.

Research Gap: After a detailed discussion on the problem statement, the current section explains the gap. The over-view of all the previous researches about the influence of organizational commitment as a mediator in the relationship between learning organization and non-financial organizational performance, it has been identified that the study of organizational commitment as a mediation in the relationship between learning organization and perceived knowledge performance improvement as an important non-financial organizational performance was neglected. Regarding the significance of this matter in organizational performance issue and insisting of other researchers such as Kumar and Idris (2006) for its essential consideration as an important study, the researcher found this matter important to be highlighted through the current study. This study concerns about perceived knowledge performance improvement as an important non-financial organizational performance indicators and the mediation role of organizational commitment in the relationship between learning organization dimension and perceived knowledge performance improvement.

The variable of organizational commitment was chosen as a mediator as some studies proved the mediation role of organizational commitment in the relationship between learning organization dimensions and different non-financial performance indicators (Rose *et al.* 2009; Tseng, 2010; Ialamet *al.* 2013; Islamet *al.* 2014; Islam *et al.*, 2015; Islam *et al.*, 2016; Trang *et al.*, 2013; Pak, 2007). The study by Rose *et al.* (2009) indicated the mediating role of organizational commitment on the relationship between learning organization dimensions and work performance. The study by Tseng (2010) indicated the mediating role of organizational commitment on the relationship between learning organization dimensions and organizational effectiveness. A study by Islam *et al.* (2015), showed the mediation role of affective commitment on the relationship between learning organization culture, perceived organizational support, and turnover intention. Another study by Islam *et al.* (2016) mentioned the mediating role of affective commitment on the relationship between

learning organization culture and organizational citizenship behavior and turnover intention. The study by Trang *et al.* (2013) confirmed the mediating role of organizational commitment on the relationship between learning organization and employees' performance. Pak (2007) indicated the role of organizational commitment as a mediator on the relationship between learning organization and managers' work performance.

It is believed that perceived knowledge performance improvement is one of the organizational performance variables (Song *et al.*, 2013; Lee and Choi, 2003; Maeques and Simon, 2006; Visser and Stuter, 2007; Ho, 2008; Rhodes *et al.*, 2008; Wei, 2009; Liao *et al.*, 2009; Kim and Gong, 2009; Pierre *et al.*, 2009). The studies of Marsick and Watkins (2003); Davis and Daley (2008) proved that learning organization has positive relation with perceived knowledge performance improvement. This study intends to fill the gap in the body of knowledge pertaining to learning organization, organizational commitment as a mediator with the specific focus on Watkins and Marsick's learning organization model in Malaysian public research universities. This study strengthens the positive relationship between learning organization and organizational commitment as proves the mediating role of organizational commitment in the relationship between learning organization dimension and perceived knowledge performance improvement. This study expands the literature review by adding organizational commitment variable as a mediator in the relationship between learning organization and perceived knowledge performance improvement and testing the mediator role of organizational commitment between learning organization dimension and perceived knowledge performance improvement in public research universities in Malaysia.

Research Opportunity: Based on the literature, it is essential to study the mediation role of organizational commitment in the relationship between learning organization and perceived knowledge performance improvement. In addition, the consideration of perceived knowledge performance improvement as an important organizational performance outcome has been supported by many researchers (Song *et al.*, 2013; Lee and Choi, 2003; Maeques and Simon, 2006; Visser and Stuter,

2007; Ho, 2008; Rhodes *et al.*, 2008; Wei, 2009; Liao *et al.*, 2009; Kim and Gong, 2009; Pierre *et al.*, 2009).

Moreover, the consideration of organizational commitment as a mediator in the relationship between learning organization and organizational performance outcomes has been supported by the certain literatures (Jumar and Idris, 2006; Rose *et al.* 2009; Tseng, 2010; Islam *et al.* 2013; Islam *et al.* 2014; Islam *et al.*, 2015; Islam *et al.*, 2016; Trang *et al.*, 2013; Pak, 2007).

The results of the current study contribute to the literature on learning organization culture and perceived knowledge performance through expanding the model of learning organization in public research universities and testing the model. Since there is a few research previously which focused on the mediation role of the organizational commitment in the relationship between learning organization dimension and perceived knowledge performance improvement among the administrative staff in public research universities in Malaysia, the current research that indicates the universities which practice learning organization strengthen the attachment of its administrative staff to the universities, which leads to higher perceptions towards knowledge performance improvement.

1.4 Research Questions

The research questions of this study are as follows:

1. What is the perception of clerical staff towards learning organization practices in Malaysian top public research universities?
2. Which learning organization dimensions are considered prominent among clerical staff in Malaysian top public research universities?
3. Are there any differences among clerical staffs' perceptions towards learning organization dimensions based on the differences in age, the education level, the years of experience in the current type of job, and the individuals' hours devoted to learning new skills?

4. Is there a significant relationship between learning organization dimension and perceived knowledge performance improvement?
5. Is there a significant relationship between learning organization dimension and organizational commitment?
6. Do affective commitment, continuance commitment and normative commitment significantly mediate the relationship between learning organization dimension and perceived knowledge performance improvement?

1.5 Purpose and Objectives of the Study

The purpose of this research is to examine the relationships between learning organization dimension, and organizational commitment as a mediator and perceived changes in knowledge performance improvement. Regarding with the purpose of this study the objectives are as follows:

1. To examine the perception towards learning organization dimensions among clerical staff in Malaysian top public research universities.
2. To find the prominent perceptions of learning dimensions among clerical staff in Malaysian top public research universities.
3. To examine whether there are significant differences among clerical staffs' perceptions towards learning organization dimensions based on differences in age, education level, years of experience in the current type of job, and the individuals' hours devoted to learning new skills.
4. To examine whether there is positive significant relationship between learning organization dimension and perceived knowledge performance improvement.
5. To examine whether there is positive significant relationship between learning organization dimension and organizational commitment.
6. To examine the mediation role of affective commitment, continuance commitment, and normative commitment between learning

organization dimension and perceived knowledge performance improvement.

1.6 Scope of the study

Some studies indicated that Dimensions of Learning Organization (DLOQ) was applied in different cultural contexts of USA, Spain, Korea, China and Taiwan (Ellinger *et al.*, 2002; Hernandez, 2000; Lien *et al.*, 2006; Yang *et al.*, 2004; Zahang *et al.*, 2004). In Malaysia, few studies have applied DLOQ to examine its applicability with different subjects in the organizations and particularly in the higher education context (Sta. Maria, 2003; Kumar and Idris, 2006). The literature review determined no referred empirical study have examined organizational commitment as a mediator in the relationship between learning organization dimension and perceived knowledge performance improvement. Regarding this issue, the researcher focused on this matter.

The researcher, after reviewing the literature related to learning organization, chose Watkins and Marsick (1997) model for the conceptual model, and found this model as the best and the most complete model on learning organization concept. Ortenblad (2002) declared there are four perspectives for learning organization notion: the old organizational learning perspective, the learning at work perspective, the learning climate perspective, and the learning structure perspective. Watkins and Marsick's (1997) approach, offers an integrative and complete model for evaluating learning organization, which is the only theoretical framework that encompasses all four perspectives, that makes Marsick and Watkins model significant.

Organizational commitment and its three components, affective commitment, continuance commitment, and normative commitment as mediator were investigated in the relationship between learning organization dimension as an antecedent and perceived knowledge performance improvement as dependent. The perceptions of clerical staff towards learning organization dimensions were investigated also.

Non-academic staff particularly the clerical staff in five public research universities of Malaysia UTM, UPM, UM, UKM and USM were the main purposes of this research. This study was carried out in the faculties of five public research universities in Malaysia. The respondents were from 13 faculties in Universiti Teknologi Malaysia (UTM) in Johor Bahru, 12 faculties in University Malaya (UM) in Kuala Lumpur, 24 faculties in Universiti Sains Malaysia (USM) in Penang, 13 faculties in Universiti Kebangsaan Malaysia (UKM) in Selangor, and 16 faculties in Universiti Putra Malaysia (UPM) in Selangor.

1.7 Contributions of the Study

This research has been done in the public research universities in Malaysia for the first time and the findings of the current research enhance the understanding of the mediator role of organizational commitment in the relationship between learning organization dimension and the perceived knowledge performance improvement. The results of the current study contribute to the literature on learning organization and perceived knowledge performance improvement. Reviewing the literature indicated that the focus of previous studies were on the mediation role of organizational commitment with the other organizational performance indicators and the investigation of the mediation role of organizational commitment in the relationship between learning organization dimension and the perceived knowledge performance improvement as an important organizational performance was neglected therefore the current research focused on the mediation role of the organizational commitment in the relationship between learning organization dimension and perceived knowledge performance improvement among the clerical staff in Malaysia. The research indicated that universities which practice learning culture strengthen the attachment of clerical staff to the universities, which leads to higher perceptions towards knowledge performance improvement. The current study adds to the literature by presenting empirical evidence for the relationship between learning organization dimension, organizational commitment as a mediator, and perceived knowledge performance improvement.

1.8 Definition of Terms

1.8.1 Knowledge Performance Improvement

Perceived knowledge performance improvement indicates to the respondents' perceptions of the current knowledge performance based on annual changes in information caused by new products or services. Knowledge performance is measured by the extent that knowledge capacity is increased or products and services is enhanced because of what has been learned (Davis and Daley, 2008).

1.8.2 Learning Organization

According to Watkins and Marsick (1993), the learning organization is defined as an organization that learns continuously and transforms itself. Learning is a continuous, strategically used process-integrated with and running parallel to work. Learning also enhances organizational capacity for innovation and growth. The learning organization has embedded systems to capture and share learning". Watkins and Marsick (1993) focused more on the system approach regarding the workplace applications and supportive environmental factors that promote persistent learning process.

1.8.3 Organizational Commitment

Organizational commitment is defined as the strength of individuals identification with a particular organization. Several researchers have categorized the concept of organizational commitment into three major themes: affective, normative, and continuance commitment (Meyer and Allen, 1991).

1.8.3.1 Affective Commitment

Affective commitment refers to the employee's emotional attachment to the organization. Employees with strong affective commitment remain with the organization because they want to do so (Meyer and Allen, 1991).

1.8.3.2 Continuance Commitment

Continuance commitment refers to the extent to which the employee perceives that leaving the organization will be costly. Employees with strong countenance commitment remain because they have to do so (Meyer and Allen, 1991).

1.8.3.3 Normative Commitment

Normative commitment refers to the employee's feelings of obligation to the organization and the belief that staying is the right thing to do. Employees with strong normative commitment remain because they feel that they ought to do so (Meyer and Allen, 1991).

1.8.4 Organization of the Thesis

This thesis is composed of five chapters. Chapter 1 introduces the background and also mentions the research problem and establishes the research objectives. Chapter 2 presents a review of the relevant literature and the relationship between the learning organization and organizational commitment. Chapter 3 contains an explanation of the research methodology. The methodology includes the research design and data collection procedure. Chapter 4 presents the data analysis which includes the descriptive statistics results and structural model. Finally, Chapter

5 summarizes the findings and discusses how these findings relate to the extant literature. It presents the conclusions of the research and also the recommendations for the future research.

REFERENCES

- Ahmad, A. (2013). Islamic perspective of the learning organization, In: Ortenblad, A. *Handbook of research on the learning organization adaptation and context*, UK, Edward Elgar Publishing, 145-156.
- Ahmad, A. R. & Yunus, N. K. Y. (2012). Understanding Learning Organization in Malaysian Organizational Context, *International Journal of Independent Research and Studies*. 1(2): 50-56.
- Ahmad, K. Z., & Bakar, R. A. (2003). The association between training and organizational commitment among white-collar workers in Malaysia. *International Journal of Training and Development*. 7(3): 166-185.
- Ahmad, I. (2014). Effects of exchange relations, perceived organizational support and employee engagement in turnover intentions, PhD Thesis, Universiti Teknologi Malaysia.
- Al-aldaileh, R. M., Dahou, K. & Hacini, I. (2012). The impact of knowledge conversion processes on implementing a learning organization strategy, *Leavening Organization*, 19(9): 482-496.
- Albert, M. (1998). Shaping the learning organization through the linkage of action research investment. *Organizational Development Journal*. 16(3): 29-41.
- Ali, A. K. (2012). Academic staff's perceptions of characteristics of learning organization in a higher learning institution. *International Journal of Educational Management*, Vol. 26, no. 1: 55-82.
- Alipour, F., Idris, khairuklin, & Karimi, R. (2011). Knowledge creation and transfer: role of learning organization, *International Journal of Business Administration*, 2 (3): 61-67.
- Allen, N., & Meyer, J.P. (1996). Affective, continuance, and Normative commitment to the organization: An examination of construct validity. *Journal of Vocational Behavior*. 40(3): 252-276.

- Allen, N., & Meyer, J.P. (1990). The measurement and antecedents of affective, continuance, and normative commitment, *Journal of Occupational Psychology*.63(1): 1-18.
- Altman, Y., & Ildes, P. (1998). Learning, leadership, teams: corporate learning and organizational change. *Journal of Management Development*, 17(1): 44-55.
- Akgun A.E., Keskin, H., Byrne J.C., & Selim Aren. (2007). *Emotional and learning capability and their impact on product innovativeness and firm performance*, *Technovation*,27: 501-513.
- Andresen, M. (2007). Diversity learning, knowledge diversity and inclusion: theory and practice as exemplified by corporate universities, *Equal opportunities international*, 26(8): 743-760.
- Anderson, J. C.& Gerbing, D. W. (1988). Structural equation modeling in practice: a review and recommended two-top approach. *Psychological Bulletin*, 103: 411-423.
- Angel, H.L., & Lawson, M. B., (1994). Organizational commitment and employees' performance ratings. Both type of commitment, and type of performance count. *Psychological Reports*. 75: 1539-1551.
- Angel, H. L. & Perry, J. L. (1981). An assessment of organizational commitment and organizational effectiveness. *Administrative Science Quarterly*, 26: 1-14.
- Armstrong A. & Foley. (2003). Foundations for a leaning organization: Organization leaning mechanism. *The Learning Organization*. 10(2): 74-82.
- Arbuckle, J. L.(2005) AMOS 6, User's guide. Spring House, P A. Amos Development Corporation.
- Argyris, C. (1999). *On organizational learning*, Blackwell: Oxford.
- Argyris, C. (1977). Daouble loop learning in Organizations. *Harvard Business Review*, September-October. 115-125.
- Argyris, C. & Schon, D. (1996). *Organizational Learning II: Theory, Method, Practice*. Reading Mass: Addison-Wesley, pp. 73-77.
- Ary, D., Jacobs, L. C., Razavieh, A., & Sorensen, C. (2006). *Introduction to research in education* (7th ed.). California: Thomson Wadsworth.
- Ary, D., Jacobs, L. C., & Razavieh, A. (2002). *Introduction to research in education*. Belmont, CA: Wadsworth.
- Atkinson, R.L, Atkinson R.C., Smith, E.E., and Bem D.J., (1993). *Introduction to Psychology*. Fort Worth TX: Harcourt Brace Jovanovich.

- Awang, Z. (2012). *A handbook on Structural Equation Modeling using AMOS*. Malaysia, Universiti Teknologi MARA Press.
- Ayers, V. H. (2002). Perceptions of university outreach and extension agriculture business counselors as a learning organization. Unpublished PhD Thesis. University of Missouri-columbia.
- Ayupp, K. & Anandan, P. (2008). Learning organization: exploring employee perception, *ICFAI Journal of Organizational Behaviour*, 7(3): 22-33.
- Bagram, J. J. (2004). *The improbable commitment: organizational commitment among South African knowledge workers*. Africa. Amazon.
- Bartlett, K. R. (2001). The relationship between training and organizational commitment: a study in the health care field. *Human Resource Development Quarterly*. 12(4): 337-47.
- Baron, R. M. & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: conceptual, strategic and statistical consideration. *Journal of Personal Social Psychology*, 51: 1173-1182.
- Bartlett, K. R. (2005). Survey research in organizations. In R. A. Swanson and E. Holton (Eds), *Research in organizations: Principles and methods of inquiry*, San Francisco: Berrertt-Koehler.
- Bhatnagar, J. (2007). Predictors of organizational commitment in India: Strategic HR roles, organizational learning capability and psychological empowerment. *Human Resource Management*. 18(10): 1782-1811.
- Bashir, S., & Ramay, M. (2008). Determinants of organizational commitment, a study of information technology professionals in Pakistan. *Institute of Behavioral and Applied Management*. 7(4): 226-238.
- Bateman, T. S. & Stresser, S. (1984). A longitudinal analysis of the antecedents of organizational commitment. *Academy of Management Journal*. 27(1): 95-112.
- Bennett, R. (1994). *Organizational Behavior*: Pitman Publishing Bowling Green State University. London.
- Bennett, J., & O'Brien, M. (1994). The building blocks of the learning organization. *Training*, 31(6): 41-49.
- Bergman, M. E. (2006). The relationship between affective and normative commitment: review and research agenda, *Journal of Organizational Behaviour*, 27(5): 645-663.

- Bodaghi Khajeh Noubar, H.B., Rose. R.C., Kumar. N. & Mohd Salleh. L. (2011). Learning culture to organizational breakthroughs in Malaysian companies. *Economics and Management*. 16.
- Bollen, K. A. (1989). *Structural equations with latent variables*. New York. John Wiley & Sons Inc.
- Bonds-Raacke, J, & Raacke, J. (2012). *Research methods: are you equipped?* (1st ed). New Jersey. Pearson Education Inc.
- Brett, J.F. & VandeWalle, D. (1999). Goal Orientation and Specific Goal Content as Predictors of Performance Outlines in a Training Program. *Journal of Applied Psychology*. 84(6): 863-73.
- Brown, R. B. (1996). Organizational commitment: Clarifying the concept and simplifying the existing construct typology. *Journal of Applied Psychology*. 77: 562-566.
- Bryman, A. & Bell, E. (2003). *Business research method*. Oxford University Press.
- Buckler, B. (1996). A learning process model to achieve continuous improvement and innovation, *The Learning Organization*. 3(3): 31-39.
- Buckler, B. (1998). Practical steps towards a learning organization: applying academic knowledge to improvement and innovation in business process. *The Learning Organization*. 5(1): 15-23.
- Bui, H. and Baruch, Y. (2012). Learning organization in higher education: an empirical evaluation within an intellectual context, *Management Learning*, 43(5): 515-544.
- Burns, R. B. (2000). *Introduction to research methods* (4th ed.). London: Sage.
- Button, S.B., Mathieu, J.E. & Zajac, D.M. (1996). Goal Orientation in Organizational Research: a Conceptual and Empirical Foundation, *Organizational Behavior and Human Decision Processes*, 67(1): 26-48.
- Byrne, B. M. (2010). *Structural equation modeling with AMOS: basic concepts, applications, and programming*. Mahwah, NJ: Erlbaum.
- Calantone R.J., Cavusgil, S. T., & Zhao, Y. (2002). Learning orientation, firm innovation capability, and firm performance, *Industrial Marketing Management*, 31:515-524.
- Caldwell, D. Chatman, J. & O'Reilly, A. (1990). Building organizational commitment: a mufti firm study, *Journal of Occupational Psychology*, 63(3): 245-261.

- Campbell, T., & Cairns, H. (1994), Developing and Managing the Learning Organization, *Industrial and commercial*, 26(7):10-15.
- Cameron, K.S. (1996). Effectiveness as paradox: consequence and conflict in conceptions of organizational effectiveness. *Management Science*. 32(5):539-553.
- Cameron, K.S., & Whetton, D.A., (1999). Perceptions of organizational effectiveness across organizational life cycles. *Administrative Science Quarterly*. 26: 525-544.
- Cangelosi, V. ,& Dill W.R. (1965). Organizational learning. Observations toward a theory. *Administrative Science Quarterly*, 10(2): 175-203.
- Carson, K. D., & Carson, P. P. (2002). Differential relationships associated with two distinct dimensions of continuance commitment. *International Journal of Organization Theory and Behaviour*. 5(3): 359-381.
- Chajnicki, G.M. (2007). Characteristics of learning organizations and multi-dimensional organizational performance indicators: a survey of large, publicly-owned companies. The Unpublished Doctoral Dissertation. The Pennsylvania State University. The graduate school. college of Education.
- Chandra, P. (1995). *Project Planning, Analysis and Management*. New Delhi, McGraw Hill.
- Chang, D. W. (2007). Public and private higher education institutions in Malaysia: competing, complementary or crossbreeds as education providers, *Kajian Malaysia*, Jun (1): 1-14.
- Chang, S. C. and Lee, M. S. (2007). A study on relationship among leadership, organizational culture, the operation of learning organization and employees' job satisfaction, *Learning Organization*, 14(2): 155-185.
- Chaston, L., Badger, B. & Sadler-Smith, E. (1999). Small firm organizational learning: comparing the perceptions of need and style among UK support advisors and small firm managers. *Journal of European Industrial Training*, 23(1): 36-43.
- Chermack, T.J, Song, J. H, Nimon, K, Choi, M, & Konte, R.F. (2012). The development and assessment of an instrument for measuring mental model styles in Korea. *Learning and Performance Quarterly*, 1 (1): 1-20.

- Chen, C. H. (2004). A study of the relationship between the learning organization and principal leadership styles in Taiwan. Unpublished PhD thesis. University of Massachusetts Lowell.
- Chiva-Gomez, R. (2003). The facilitating, factors for organizational learning: bringing ideas from complex adaptive systems. *Knowledge and process management*, 10(2), 99-114.
- Cho, D. Y. & Kwon, D. B. (2005). Self-directed learning readiness as an antecedent of organizational commitment: a Korean study. *International Journal of Training and Development*. 9(2): 120-151.
- Cho, J., Heather, K., & Wong, C. (2006). Workplace environment, work engagement, and organizational commitment. *Nursing research*. 19(3): 43-60.
- Cho, J. & Treadway, D. C. (2011). Organizational identification and perceived organizational support as mediator of the procedural justice-citizenship behaviour relationship: a cross-cultural constructive replication. *European Journal of Work and Organizational Psychology*, 20(5): 631-653.
- Choi and Lee, (2003),
- Chughtai, A. A., & Zafar, S. (2006). Antecedents and consequences of organizational commitment among Pakistani university teachers. *Applied Human Research Management*. 11(1): 39-64.
- Churchill, G. A. Jr. (1995). *Marketing research, methodological functions*. The Drydu Press, G. Edition, New York, USA.
- Cohen, A. (2007). Commitment before and after: An evaluation and reconceptualization of organizational commitment. *Human Resource Management Review*. 17(3): 336-354.
- Cohen, A. (2003). *Multiple commitments in the workplace: An integrative approach*, Mahwah, NJ: Lawrence Erlbaum.
- Cohen, L., & Manion, L. (1994). *Research methods in education* (4th ed). New York, NY: Routledge.
- Coakes, S. J. (2006). *SPSS: Analysis Without Anguish: version 14.0 for windows*, Milton, Qld: John Wiley & Sons.

- Cooke, D.C. (1997). Discriminant validity of the organizational commitment questionnaire, *Psychological Reports*, 80(2): 431-441.
- Coopy, J. (1998). Learning to trust and trust to learn. *Management Learning*. 29(3): 365-382.
- Crossan, M. & Berdrow, I. (2003). Organizational learning and strategic renew *Strategic Management Journal* 24, 1087-1105.
- Crossen, M. Lane, H., White, R. E., & Djurfelt, L. (1995). Organizational learning: Dimensions for a theory. *International Journal of Organizational Analysis*. 3: 337-360.
- Cyert, R.M. & March, J.G. (1963). *A behavioral theory of the firm*, Englewood Cliffs.
- Daft, Richard, L. (2000). *Organizational Theory and Design*. Ohio, South-Western College.
- D' Amato, V, (2015), *Management innovation road map*, Milano IT, Egea.
- Davis, D. & Daley, B.J. (2008). The learning organization and its dimensions as key factors in firm's performance. 11(1):51-66.
- Dee, J. R., Henkin, A. B., & Singleton, C. A., (2006). Organizational Commitment of teachers in urban schools: Examining the Effects of Team Structures Urban Education, 41(6): 603-627.
- Delobbe, N., & Vandenberghe, C., (2000). A four-dimensional model of organizational commitment among Belgian employees. *European Journal of Psychology Assessment*. 16(2): 125-138.
- DeVellis, Robert, F. (1991). *Scale development: theory and applications*. Sage.
- Demers, L. D. (2009). The relationship between perceptions of learning organization characteristics and firm performance. The Unpublished Doctoral Dissertation, The Pennsylvania State University, The Graduate School, College of Education.
- Department of Private Higher Education, Malaysia (2014), List of approved private higher education Institutions, Retrieved February 17, 2014 from <http://www.studymalaysia.com/jps/>.
- Dibella, A. (1997). Gearing up to become a learning organization, *Journal for Quality and participation*, 20(3): 12-14.
- Dibella, A. & Nevis, Edwin, C. (1998). *How organization learn: an integrated strategy for building learning capability*, San Francisco, Calif, Jossey-Bass.

- DiLiello, T. C., & Houghton, J. D. (2008). Creative potential and practiced creativity: identifying untapped creativity in organizations. *Creativity and Innovation Management*, 17 (1): 37-46.
- Dirani, K. M. (2009). Measuring learning organization culture, organizational commitment and job satisfaction in the Lebanese banking sector, *Human Resource Development International*, 12(2): 189-208.
- Dixon, N. (1994). *The Organizational Learning Cycle: How Can We Learn Collectively*. Maidenhead McGraw-Hill.
- Dodgson, M. (1993). Organizational learning review of some literatures. *Organizational Studies*, 14(3): 375-394.
- Dymock, D. & McCarthy, C. (2006). Towards a learning organization? Employee perceptions, *The learning organization*, 13 (5).
- Education Guide Malaysia (1997) Kuala Lumpur. Challenger Concept (M) Sdn. Bhd.
- Egan, T. M. (2005). The Impact of Learning Goal Orientation Similarity on Formal Mentoring Relationship Outcomes. *Advances in Developing Human Resources*. 7(4): 489-504.
- Egan, T. M. (2002). Learning Organization Dimensions and Motivation to Transfer Learning in Large Firm Information Technology Employees. Unpublished PhD Thesis. University of Minnesota.
- Ellinger, A.D., Ellinger A. E, Yang, B, & Howton, S. H. (2003). Making the business case for the learning organization concept. *Advances in Developing Human Resources*, 5(2): 163-172.
- Ellinger, A. D., Ellinger, A. E, Yang, B. & Howton, S. H. (2002). The relationship between the learning organization concept and firm's financial performance: an empirical assessment. *Human Resource Development Quarterly*. 13: 5-21.
- Ellinger, A. D., Watkins, K. E., & Bostrom, R. P. (2000). Managers as facilitators of learning organization: A rejoinder to Dirkx's invited reaction. *Human Resource Development Quarterly*. 11(4): 403-409.
- Elstad, e., Christophersen, K. A. & Turmo, A.(2013). Antecedents of organizational citizenship behaviour among educators in language education for adult immigrants in Noreway. *Adult Education Quarterly*, 63(1): 78-96.
- Erickson C.L. & jaccoby. (2003). The effect of employer networks on workforce innovation and training. *Individual and Labor Relations Review*.56(2): 203.

- Evans, S.S. (1998) Revising the Learning Organization. *Work study*. 47(6): 201-203.
- Fah, L.S. (1999). Learning Organization Practices: A case of S.E.H (Malaysia) Sdn. Bhd. Unpublished Master Thesis. Universiti Putra Malaysia.
- Fard, H. D. Rostamy. A. A. and Taghilo, H. (2009). How types of organizational cultures contribute in shaping learning organizations. *Singapore Management Review*, 31(1): 49-61.
- Farr. J.L., Hofman, D.A. & Ringenbach, K.L. (1993), Goal orientation and action control theory: implications for individual and organizational psychology, in Cooper, C.L. and Robertson, I.T. (Eds). *International Review of Industrial and Organizational Psychology*. Wiley. New York. NY, 193-232.
- Ferris, K. R., & Aranya, (1983). A comparison of two organizational commitment scales. *Personnel Psychology*. 36(1): 87-98.
- Finegan, J. E. (2000). The impact of person and organizational values on organizational commitment. *Journal of Occupational and Organizational Psychology*. 73: 149-169.
- Finger, M., & Brand, S.B. (1999). The concept of the learning organization applied to the transformation of the public sector: Conceptual contributions for theory development, in Easterby-Smith, M., Burgoyne, J., & Araujo, L. (Eds), *Organizational Learning and the Learning Organization: Developments in Theory and Practice*. London: Sage Publication.
- Fiorito, J., Bozeman, D.P., Young, A., & Meurs, J. A. (2007). Organizational commitment, human resource practices, and organizational characteristics, *Journal of Managerial Issues*, XIX(2): 186-207.
- Fisher, S. L. & Ford, K. J. (1998). Differential efforts of learner effort and goal orientation on two learning outcomes. *Personal Psychology*. 51(2): 397-420.
- Fiol C. M. & Lyles M. A. (1995). Organizational Learning. *Academy of management Review*, 10(4): 803-813.
- Fletcher, G. P. (1993). *Loyalty: An Essay on the Morality of Relationships*. New York: Oxford University Press.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1): 39-50.
- Fraenkel, J. R. & Wallen, N. E. (2003). *How to design and evaluate research in education* (5th ed). New York, McGraw-Hill Publishing Co.

- Friedman, H. H., Friedman, L. W. & Pollack, S. (2005). Transforming a university from a teaching organization to a learning organization, *Review of Business*, 26 (3): 31-35.
- Gagne, R. M. (1972). Domains of learning, *Interchange*. 3(1): 1-8.
- Gall, M. D., Gall, J. P., & Brog, W. R. (2005). *Education research: An introduction* (8th ed). Boston: Allyn and Bacon.
- Garver, M. S. & Mentzer, J. T. (1999). Logistics research methods: employing structural equation modeling to test for construct validity, *Journal of Business Logistics*, 20(1): 33-57.
- Graverrer F. j. & Wallnau, L. B. (2007). *Statistics for the behavioral sciences* (8 ed), USA: Wadsworth.
- Garcia-Gabrera, A. and Garcia-Soto, G. (2012). Organizational commitment in MNC Subsidiary top managers: antecedents and consequences. *The International Journal of Human Resource Management*, 23(15): 3151-3177.
- Gardine, P. & Whiting, P. (1997). Success Factors in Learning Organizations: An Empirical Study, *Industrial and Commercial Training*. 29(2): 41-48.
- Garavan, T. (1997). The learning organization: A review and evaluation. *The Learning Organization*. 4(1), 18-29.
- Garvin, D.A., Edmonson, A.C., & Gino, F. (2008). Is yours a learning organization? *Harvard Business Review*, 2(3): 1-10.
- Garvin, D.A. (2000). *Learning in action: A guide to putting the learning organization to work*. Boston: Harvard Business School Press.
- Garvin, D.A. (1993). Building a Learning Organization. *Harvard Business Review*. 71(4): 73-91.
- Gary, C. (2010). Senge's learning organization: Leadership in an urban high school in Northeast Alabama, Unpublished Doctoral Dissertation. Walden University.
- George, D. & Mallery, P. (2003). *SPSS for Windows step by step: A simple guide and reference. 11.0 update* (4th ed). Boston: Allyn & Bacon.
- Gephart, M.A., Marsick, V.V.J., Van Burren, M.E., & Spirio M.S. (1996). Learning Organizations come alive, *Training and Development*. 50 (12): 36-41.
- Ghuri, P. & Gronhaug, k. (2005). *Research methods in business studies*. (3rd ed.). London: FT. Prentice Hall.

- Gilley, J.W. & Maycunich, A. (2000). *Beyond the Learning Organization*, Perseus Books, Reading, M.A.
- Gilley, J.W. & Maycunich, A. (2000). *Organizational Learning, Performance, and Change: An Introduction to Strategic HRD*, Perseus: 73-78.
- Godshalk, V.M. & Sosik, J.J. (2003). Aiming for Career Success: The Role of Learning Goal Orientation in Mentoring Relationships, *Journal of Vocational Behavior*, 63(3): 417-37.
- Goh, S. C. (2003). Improving organizational learning capability: Lessons from two case studies, *The Learning Organization*. 10(4): 216-227.
- Goh, S. C. (1998). Toward a learning organization: The strategic building block. *SAM-Advanced Management Journal*. 63(2): 15-22.
- Goh, S. C. & Richards, G. (1997). Benchmarking the learning capabilities of organization, *European Management Journal*. 15(5): 575-683.
- Gomes, C.F., Yasin, M. M., & Lisboa, J. (2004). An examination of manufacturing organizations' performance evaluation: Analysis, implications and a framework for future research. *International Journal of Operations & Production Management*. 24(5): 488-513.
- Graverrer, F. J. & Wallnau, L. B. (2007). *Statistics for the behavioral sciences* (8 ed). USA: Wadsworth.
- Grapragasm, S., Krishanan, A. & Mansor, A. N. (2014). Current trends in Malaysian higher education and the effect on education policy and practice: an overview, *International Journal of Higher Education*, 3(1): 85-93.
- Grandzol, J. R. & Gershon, M. (1998). A survey instrument for standardizing TQM modeling research, *International Journal of Quality Science*, 3(1): 80-105.
- Greenwood, Davyd, J. (2009) Are research universities knowledge-intensive learning organizations? In *Handbook of research on knowledge-intensive organizations*, Jemielniak, D. & Kociatkiewicz, J. (2009). UK. University of Essex.
- Griego, O. Geroy, G., & Wright, P. (2000). Predictors of learning organizations: A human resource development practitioner's perspective, *The Learning Organization*. 7: 5-21.
- Grossnickle, j. & Raskin, O.(2001). *Hand book of online marketing research*, McGraw-Hill.

- Gulati, R. & Higgins, M.C. (2003). Which ties matter when? The contingent effects of inter organizational partnerships on IPO success. *Strategic Management Journal*. 24(2): 127.
- Hackett, R. D., Byclo, P. & Hausdorf, P. A. (1994). Further assessment of Meyer and Allen's (1991) three-component model of organizational commitment, *Journal of Applied Psychology*. 79(1): 15-22.
- Hair, J. F. Jr., Black, W. C., Babin, B. J., Anderson, R. E. & Tatham, R. L.(2006). *Multivariate data analysis* (6th ed.). New Jersey: Prentice Hall.
- Hair, J. F. Jr. Black, W. C., Babin, B. J. & Anderson, R. E. (2010). *Multivariate data analysis*. (7th ed.). New Jersey, Prentice Hall.
- Hair, J. R., Anderson, R. Tatham, &W. Black,W. C. (1998). *Multivariate Data Analysis* (5th edition). Prentice Hall International: London.
- Hair, J. F. Jr., Anderson, R. E. & Tatham, R. L. & Black, W. C. (1995). *Multivariate data analysis*. (3th ed.). Macmillan Publishing Company, New York.
- Hair, J.F. Hult, G. T. M. Ringle & Sarstedt. M. (2014). *A primer on partial least squares structural Equation modeling* (PLS-SEM). Thousand Oaks: Sage.
- Haji Ahmad, R. (1998). Educational development and reformation in Malaysia: past, present and future, *Journal of Educational Administration*, 36 (5): 462-475.
- Hamidi, M., & Keshtidar, M. (2004). The study of organizational structure and organizational commitment in physical education colleges in the country. *Harakat Quarterly*, 15(10): 43-54.
- Hayes, R. H. & Abernathy, W.J.(1980). Managing our way into economic decline. *Harvard Business Review*. 28(4).
- Haysman, M. (1999). Balancing biases: a critical review of the literature on organizational learning, in Easterby-Smith, M., Burgoyne, J., & Araujo, L. (Eds), *Organizational Learning and the Learning Organization: Developments in Theory and Practice*. London: Sage Publication.
- Hedges, P. (1997). *Increasing profitability by the effective use of learning*: London: Kogan Page.
- Herrbach, O. (2006). A matter of feeling? the affective tone of organizational commitment and identification, *Journal of Organizational Behaviour*, 27(5): 629-643.

- Hernandez, M. (2003). Assessing tacit knowledge transfer and dimension of an environment in Colombian business. *Advances in Developing Human Resource*. 5(2): 215-221.
- Hernandez, M. & Watkins K.E. (2003). Translation, Validation and Adaptation of the Spanish Version of the Modified Dimensions of the Learning Organization Questionnaire. *Human Resource Development International*. 6(2): 187-196.
- Hernandez, M. (2000). The Impact of the Dimensions of the Learning Organization on the Transfer of Tacit Knowledge Process and Performance Improvement within Private Manufacturing Firms in Columbia. Unpublished PhD Thesis: University of Georgia, Athens.
- Hitt, W.D. (1995). The learning organization: Some reflection on organizational renewal. *Leadership and Organizational Development Journal*. 16(8): 17-25.
- Ho, LA. (2008). What affects organizational performance? The linking of learning organization and knowledge management, *Industrial Management and Data Systems*, 108(9): 1234-1254.
- Homles-smith, P., Cumingham, E., & Coote, L. (2006). *Structural equation modeling: from the fundamentals to advanced topics*. Melbourne: Statsline.
- Hoyle, R. H. (1995). *Structural equation modeling: issues and applications*, London. Sage.
- Hoelter, J. W. (1983). The analysis of covariance structure: goodness of fit indices, *Sociological Methodsw & Rese4arch*, 11(3): 325-344.
- Hoof, B.V.D., & Ridder, J.A.D (2004). Knowledge sharing in context: The influence of organizational commitment, communication climate and CMC use on knowledge sharing. *Journal of knowledge management*. 8(6): 117-130.
- Hoon Song, J. I., Kim H.S., & Kolb, J. A., (2009). The effect of learning organization culture on the relationship between interpersonal trust and organizational commitment. *Human Resource Development*, 20(2): 147-167.
- Hord, S. M., & Hall, G. E. (1987). *Taking Charge of Change*, Alexandria, Va., Southwest Educational Development Lab, Austin.
- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, 6: 1-55.

- Hung, R. Y. Y., Yang, B., Lien, B. Y., McLean, G. N., & Kuo, Y. (2010), Dynamic capability: impact of process alignment and organizational learning culture on performance, *Journal of World Business*, 45: 285-294.
- Imran, M., Hasan, S. Rizvi, M. & Ali, B. (2011). Impact of organizational learning on organizational performance, *International Journal of Academic Research*, 3(4): 424-427.
- Isaac, S., & Michael, W. B. (1995). *Handbook in research and evaluation*. San Diego, CA: Educational and Industrial Testing Services.
- Islam, T., Munawar Khan, M., & Bukhari, F. H., (2016). The role of organizational learning culture and psychological empowerment in reducing turnover intention and enhancing citizenship behavior, *The Learning Organization*, 23(2): 156-169.
- Islam, T., Ahmad, I., & Ahmad, U. N., (2015), The influence of organizational learning culture and perceived organizational support on employees' affective commitment and turnover intention, *Nankai Business Review International*, 6(4): 417-431.
- Islam, T., Kassim, N. A., Ali, G., & Sadiq, M., (2014). Organizational learning culture and customer satisfaction, *The Learning Organization*, 21(6): 392-404.
- Islam, T., Rahman Khan, S., Ahmad, U. N., & Ahmad, I. (2013). Organizational learning culture and leader-member exchange quality, *The Learning Organization*, 20(4): 322-337.
- Irving, P. G., & Coleman, D. F. (2003). The moderating effect of different forms of commitment on role ambiguity-job tension relation, *Canadian Journal of Administrative Sciences*, 20: 97-106.
- Jankowicz, A. D. (1995). *Business research projects*. International Thomson Business Press.
- Jaussi, K. S. (2007). Attitudinal commitment: A three-dimensional construct. *Journal of Occupational and Organizational Psychology*. 80: 51-61.
- Jashapara, A. (2003). Cognition, culture, and competition: An empirical test of the learning organization. *The Learning Organization*. 10(1): 31-50.
- Jensen, P. E. (2005). A contextual theory of learning and the learning organization. *Knowledge Process Management*. 12, 53-64.

- Johnson, M.P. (1991). Commitment of personal relationship, *Advanced in Personal Relationships*. 13: 117-143.
- Johnson, J.R. (2002). Leading the Learning Organization, Portrait of four leaders, *Leadership and Organization Development Journal*, 23(5): 241-249.
- Johnson, C. & Caldwell, B., (2001), Leadership and organizational learning in the quest for world class schools. *International Journal of Education Management*.15(2): 94-103.
- Johnson, C., Spicer, D. & Wallace, J.(2012). An empirical model of the learning origination. Organizational learning and knowledge Capabilities Conference, 12-14 April, at Hull, England.
- Johnson, R. E., & Chang, C. H. (2008). Relationships between organizational commitment and its antecedents: Employee self-concept matters. *Journal of Applied Social Psychology*, 38(2), 513-541.
- Joiner, T. A. & Bakalis, S. (2006). The antecedents of organizational commitment: the case of Australian casual academics. *International Journal of Educational Management*, 20(6): 439-452.
- Jo, S. J. & Joo, B. K. (2011). Knowledge sharing: The influences of learning organization culture, organizational commitment, organizational citizenship behaviors. *Journal of Leadership & Organizational Studies*, 18(3): 353-364.
- Joo, B. K., & Park, S. (2010). Career satisfaction, Organizational Commitment, and turn over intention. *Leadership and OrganizationDevelopment Journal*, 31(6): 482-500.
- Joo, B. K. & Lim, T. (2009). The effects of organizational learning culture, perceived job complexity, and proactive personality on organizational commitment and intrinsic motivation, *journal of Leadership & Organizational Studies*, 16(1): 48-60.
- Joo, B.k.,(2007). The impact of contextual and personal characteristics on employee creativity in Korean firms. Unpublished doctoral dissertation, University Minnesota.
- Joolideh, F., & Yeshodhara, K. (2008). Organizational commitment among high school teachers of India and Iran, *Journal of Educational Administration*, 47(1): 127-136.
- Kaplan, E. M.,& Saccuzzo, D. P. (2005). Psychological testing: principals applications, and issues, Belmont, CA: Thomson Wadsworth.

- Kelloway, E. K. (1998). *Using Lisrel for structural equation modeling, A researcher's guide*. Thousand Oaks, CA: Sage.
- Krejcie, R. V., & Morgan, D. W. 1970. Determining sample size for research activities. *Educational and Psychological Measurement*, 30, 607-610.
- Kidwell, J. J., Vander, L. K. & Johnson, S. L. (2000). Applying corporate knowledge management practices in Higher Education. *Education Quarterly*, 23(4): 28-33.
- Kim, H, & Gong, Y, (2009). The roles of tacit knowledge and OCB in the relationship between group-based pay and firm performance. *Human Resource Management Journal*, 19(2): 120-139.
- Kim, W. C. & Mauborgne, R. (2005), Blue ocean strategy. From theory to practice. *California Management Review*, 47(3): 105-121.
- Kline, R. B. (2011). Principles and practice of structural equation modeling and multilevel modeling. In M. Williams & W. P. Vogt (ed), *Handbook of methodological innovation* (pp. 562-582). Thousand Oaks, CA: Sage.
- Kline, R. B. (2005). *Principles and practice of structural equation modeling* (2nd ed). New York: The Guilford Press.
- Kofman, F. & Senge, P. M. (1993). Communities of learning: The heart of learning organization. *Organizational Dynamics*, 22: 5-23.
- Konroghiorghes, C., & Bryant, N. (2004). Exploring Employee commitment in a service organization in the Health Care Institute Industry. *Organization Development Journal*.22(3): 59-73.
- Kozlowski, S. W. J, Gully, S. M., Brown, K. G., Salas, E., Smith, E. M. & Nason, E. R. (2001). Effects of Training Goals and Goal Orientation traits on Multidimensional Training Outcomes and Performance Adaptability. *Organizational Behavior and Human Decision Processes*. 85(1): 1-31.
- Krishna, V., & Casey, A. (2008). Employee perceptions of organizational learning as determinants of affective commitment in knowledge intensive firms. Academy of Human Resource Development International Research Conference. Florida, February, 20-24.
- Krishna, V. (2008). Exploring organizational commitment from an organizational perspective: Organizational learning as a determinant of affective

- commitment in Indian Firms. Unpublished PhD Thesis. The Gorge Washington University.
- Kumar, N. (2005). Assessing the learning culture and performance of educational institutions. *Performance Improvement*, 44 (9): 27-32.
- Kumar, N. & Idris, K.(2006). An examination of educational institutions' knowledge performance: Analysis, implications and outlines for future research. *The learning organization*, 13 (1): 96-116.
- Kumar, N.& Idris, K.(2003). Building a culture of Lifelong learning in the Higher Learning Institutions. 2nd International Conference on Learning and Motivation: Issue and challenges in a borderless world, 13-15 October, Malaysia.
- Kumar, N. & Uli, J. (2003a). The learning organization: Route to quality assurance in Higher Education Institutions. Association of Southeast Asian Institutions of Higher Learning (ASAHEL). Quality Assurance in Higher Education Institution: A strive towards professionalism Conference, 9-11 December, University of Indonesia. Indonesia.
- Kumar, N. & Uli, J. (2003b). E-Learning: A new learning paradigm in the digital age. Asian Association of Computer Assisted Language Learning (Asia CALL) International Conference, 2-5 December, Rangsit University. Thailand.
- Lam, S. S. K., (1998). Test-retest reliability of the organizational commitment questionnaire, *Journal of Social Psychology*. 136(2): 787-788.
- Lashley, C. (2001). Empowerment: *HR Strategies for Service Excellence*. Oxford Butter-worth-Heinemann.
- Lease, S. H. (1998). Test-retest reliability of the reliability of the organizational commitment questionnaire. *Journal of Social Psychology*. 138(6): 787-788.
- Lee, H. & Choi, B. (2003). Knowledge management enablers, processes, and organizational performance: an integrative view and empirical examination, *Journal of Management Information Systems*. 20(1): 21-41.
- Lee, K. S., & McNeely, B. J. (1992). Dual dimensionality of the organizational commitment questionnaire: Dimension specific influence on salespeople's behavioural outcomes, *Journal of Marketing Management*. 2(1): 86-99.

- Lehesvirta, T. (2004). Learning processes in a work organization: From individual to collective and/or vice versa? *The Journal of Workplace Learning*, 16(1): 92-100.
- Liao, SH. & Chen, CW. Mu. HC & Cheng, MH, (2009). Grey relational analysis of operational performance for mobile telecommunications companies in Taiwan, International conference on communications and mobile computing, 348-352.
- Libarkin, J. R. & Kurdziel, J. P. (2002). Research methodology in Science Education: the qualitative and quantitative debate, *Journal of Geoscience Education*, 50(1): 78-86.
- Lick, D. W. & Kaufman, R. (2000-2001), Change creation: the rest of the planning story, in Boettcher, J.V., Doyle, M. M. and Jensen, R. W. (Eds.), *Technology-driven Planning: Principles to Practice*, Society for college and University Planning, Ann Arbor, MI, 24-36.
- Lien, B. Y., Hung, R. Y., Yang, B. & Li, M. (2006). Is the learning organization a valid concept in the Taiwanese context? *International Journal of Manpower*, 27(2): 189-203.
- Lim, T. (2010). The Relationships among Organizational Commitment, Learning Organizational Culture, and Job Satisfaction in one Korean Private Organization. *Asia Pacific Education Review*, 11: 311-320.
- Little, T. D., Card, N. A., Boverid, J. A., Preacher, K.J. & Crandall, C.S. (2007). Structural equation modeling of mediation and moderation with contextual factors. *Modeling contextual effects in longitudinal studies*, 207-230.
- Lok, P., & Crawford, J. (2004). The effect of organizational culture and leadership style on job satisfaction and organizational commitment: A cross-national comparison. *The Journal of Management Development*, 23(3): 321-338.
- Longworth, N. & Davis, W, (1996). *Lifelong Learning*. London: Kogan Page Limited.
- Lundberg, C. (1995). Learning in and by organizations: Three conceptual issues. *The international Journal of Organizational Analysis*, 3(1): 10-23.
- Luthans, F., McCaul, H.S. & Dodd, N.G. (1985). Organizational commitment: A comparison of American, Japanese, and Korean employees. *Academy of Management Journal*, 28(1): 213-219.

- Malhotra, N. K. & Birks, D. F.(2007). *Marketing research: an applied approach* (3rd ed.). Harlow: Prentice Hall.
- Malek Shah M. Yusoff, (2005). The Public service as a Learning Organization: the Malaysian experience, *International Review of Administrative Sciences*, 71(3): 463-474.
- Markovits, Y., Boer, D. & Van Dick, R. (2013); economic crisis and the employee: the effect of economic crisis on employee job satisfaction, commitment, and self-regulation. *European Management Journal*. 17(3): 127-134.
- Marques, DP. & Simon, FJG. (2006). The effect of knowledge management practices on organization performance, *Journal of Knowledge Management*. 10(3): 143-156.
- Marsick, V.J. (2013). The dimensions of a learning organization questionnaire (DLOQ): introduction to the special issue examining DLOQ use over a decade. *Advances in Developing Human Resources*, 15(2), 127-132.
- Marsick, V.J. & Watkins K.E. (1999). *Facilitating learning organizations: Making learning count*. London: Gower Press.
- Marsick, V.J., & Watkins, K.E., (2003). Demonstrating the value of an organization's learning culture: The dimensions of the learning organization questionnaire. *Advances in Developing Human Resources*. 37(6): 589-608.
- Marquardt, M. J. (2002). *Building the Learning Organization: Measuring the Five Elements for Corporate Learning*. Palo Alto. Davies-Black.
- Marquardt, M. J. & Alexander, J. (1999). How action learning builds the learning organization: A conceptual analysis. Academy for Human Resource Development Conference Proceedings, Arlington, VA: AHRD Press.
- Marquardt, M. J. (1996). *Building the Learning Organization a System Approach to Quantum Improvement and Global Success*. New York: McGraw-Hill.
- Marquardt, M. J. (1993). The global learning organization: Gaining competitive advantage through continues learning, *The MCD Review*. 11(1): 112-127.
- Mathieu, J. E. & Zajac, D. M. (1990). A review and meta-analysis of the antecedents, correlates, and consequences of organizational commitment. *Psychology Bulletin*, 108(2): 171-194.
- Mazen, A. M., Jones, M. C., & Sergenian, G.K. (2000). Transforming a class into a learning organization. *Management Learning*. 31(2): 147-161.

- McGill, M. E., & Slocum, J. W. Jr. (1993). Unlearning the organization, *Organization Dynamics*, 22: 67-79.
- McHugh, D., Groves, D. & Alker, A. (1998). Managing Learning what do we learn from a Learning Organization? *The Learning Organization*, 5(5): 209-220.
- McHargue, S.K. (1999). Dimensions of the Learning Organization as Determinants of Organizational Performance in Nonprofit Organizations, Unpublished PhD Thesis, University of Georgia, Athens.
- McHargue, S.K. (2003). Learning for performance in nonprofit organizations. *Advances in Developing Human Resources*, 5(5): 209-220.
- McKinnon, J. L., Harrison, G. I., Chow, C. W., & Wu, A. (2003). Organizational culture: association with commitment, job satisfaction, propensity to remain, and information sharing in Taiwan. *International Journal of Business studies*, 11(1): 25-44.
- McMurray, A. J., & Dorai, R. (2001). The relationship between workplace training and organizational commitment in Australian organizational settings: A preliminary analysis in O. A. Aliage (ed). Academy of Human Resource Development Conference. 2001.
- Mehrabi, J., Jadidi, M. & allameh haery, M, (2013), The relationship between organizational commitment and organizational learning, *International Journal of Academic Research in Business and Social Sciences*, 3(1): 130-139.
- Mei, TA. (2002). *Malaysian Private Higher Education: Globalisation, Privatisation, Transformation, and Marketplace*. London: Asean Academic Press.
- Metlay, W. & Kaplan, I. (1992). Characteristics and consequences of self-management, Proceeding of the 1992 International Conference on Self-Managed Work Teams. 3: 184-190.
- Meyer, J. P., Becker, T. E., & Vandenberghe, C., (2004). Employee commitment and motivation: A conceptual analysis and Integrative model, *Journal of Applied Psychology*. 89(6): 991-1007.
- Meyer, J. P., Allen, N. J., & Smith, C., (1993). Commitment to organizations and occupations: Extension and test of a three-component conceptualization. *Journal of Applied Psychology*, 78, 538-551.
- Meyer, J. P., & Allen, N. J. (1991). A three-component conceptualization of organizational commitment. *Human Resource Management Review*. 1: 61-89.

- Meyer J. P. & Allen, N. J. (1997). *Commitment in the workplace*. Thousand Oaks, CA: Sage.
- Meyer J. P. & Allen, N. J. (1987). A longitudinal analysis of the early development and consequences of organizational commitment. *Canadian Journal of Behavioral Science*. 19: 199-215.
- Meyer, J. P., & Allen, N. J. (1987). Organizational Commitment: Toward a three-component model. London: The University of Western Ontario, Department of Psychology. *Research Bulletin*: 660.
- Meyer J. P., & Herscovich, L. (2001), Commitment in the workplace: toward a general model, *Human Resource Management Review*, 11(3):299-326.
- Meyer, J. P. & Parfyonova, N. M. (2010). Normative commitment in the workplace: A theoretical analysis and re-conceptualization. *Human Resource Management Review*. 20(10): 283-294.
- Meyer J. P., Stanley, D.J., Herscovitch, L., & Topolnytsky, L. (2002). Affective, continuances, and normative commitments to the organizations: A meta-analysis of antecedents, correlations, and consequences. *Journal of Vocational Behavior*. 61(1): 20-52.
- Meyers, L.S., Gamst, G., & Guarino, A. J. (2006). *Applied multivariate research design and interpretation*, London, Sage.
- McHargue, S. K. (2003), Learning for Performance in Nonprofit Organizations. *Advances in Developing Human Resources*, 5(2): 197-204.
- Moen, F. & Federici, R. (2013). Coaches' coach competence and influence on organizational learning, *Organization Development Journal*, 31(2): 32-46.
- Morris, J. M., & Steers, R. M. (1981). Structural influences on organizational commitment, Unpublished PhD Thesis. University of Oregon.
- Mowday, R. T., Porter, L. W., & Steers, R. M. (1982). *Employee-organization linkages: The psychology of commitment, absenteeism, and turnover*. New York: Academic Press.
- Mowday, R. T., Steers, R. M., & Porter, L. W. (1979). The measurement of organizational commitment. *Journal of Vocational Behavior*. 14: 224-247.
- Mowday, R. T., Porter, L. W., & Dubin, R. (1974). Unit Performance, situational factors, and employee attitudes in spatially separated work units. *Organizational Behaviour and Human Performance*. 12: 231-248.

- Moilanen, R. (2001). Diagnostic tools for leaning organizations, *The Learning Organization*. 8(1): 6-20.
- Moilanen, R. (2005). Diagnosing and Measuring learning organization, *The Learning Organization*. 12(1): 71-89.
- Moore, K. B. (2000). Successful and effective professional development. *Early Childhood Today*. 15(3): 14-15.
- Morgan, G. (1997). *Images of the Organization*. Thousand Oaks. CA. Sage Publication.
- Murray, P., & Chapman, R. (2003). Empirical linkages between firm competencies and organizational learning. *The learning organization*. 10(1): 51-62.
- Muthen, B. 2011, *Applications of casually defined direct and indirect effects in Mediation analysis using SEM* in Mplus.
- Najaf, A., Ziaee, A., Ziaee, A., & Shahrabadian, S. (2012), Relationship between learning organization and organizational commitment among employees of sport and youth head office of western provinces of Iran, *European Journal of Sports and Exercise Science*, 1(3): 59-69.
- Nazari, k. (2012), Relationships between learning organization dimensions and organizational commitment as perceived by lecturers in technical and vocational colleges in Iran, UPM, Doctoral Thesis.
- Nazari, K. & Pihie. Z. A. L. (2012), Assessing learning organization dimensions and Demographic factors in technical and vocational colleges in Iran. *International Journal of Business and Social Science*. 3(3): 210-219.
- Nevis, E.C., Dibella, A.J., & Gould, J.M. (1995), Understanding organizations as learning system, *Sloan Management Review*, 73-85.
- Newman, A., Thanacoody, R., & Hui, W. (2012). The effects of perceived organizational support, perceived supervisor support and intra-organizational network resources on turnover intentions: A study of Chinese employees in multinational enterprises, *Personnel Review*, 41(1): 56-72.
- Norliya Ahmad Kassim & Azizah Mohd Nor. (2005). Learning organizations: Organizational learning practices in university librarians in the Klang Valley, Malaysia. Paper presented at the International Conference on Knowledge Management (ICKM), 7-9 July, Putra World Trade Center, Kuala Lumpur, Malaysia.

- Norliya Ahmad Kassim & Azizah Mohd Nor.,(2007a). Learning organizations: Organizational learning practices in university librarians in the Klang Valley, Malaysia. Paper presented at the Conference on Scientific and Social Research (CSSR), 3-5 July, Petaling Jaya, Kuala Lumpur, Malaysia.
- Norliya Ahmad Kassim & Azizah Mohd Nor.,(2007b), Team learning in a learning organization: The practices of team learning among university libraries in Malaysia. *Malaysian Journal of Library and Information Science*, 12 (1): 55-64.
- Nonaka, I. (1991). The knowledge-creating company. *Harvard Business Review*, Nov-Dec: 96-104, p.97.
- Nunnally, J. C. (1978). *Psychometric theory* (2nd ed). New York. McGraw-Hill.
- Nunnally, J. C. & Berstein, I. H. (1994). *Psychometric theory* (3rd ed). New York. McGraw-Hill.
- O' Brien, C.D., & Buono, A.F. (1999). Creating learning organizations: Working with organizations to access their collective intelligence. *Organization Development Journal*. 17(4): 103-108.
- O' Reilly, C. & Chatman, J. (1986). Organizational commitment and psychological attachment: The effects of compliance, identification and internalization on pro-social behaviour. *Journal of Applied Psychology*. 71(3): 492-499.
- Ortenblad, A. (2001). An differences between organizational learning and learning organization. *The Learning Organization*. 8(3): 124-133.
- Ortenblad, A. (2002). A typology of the idea of learning organization, *Management Learning*. 33(2): 213-230.
- Ortenblad, A. (2004). The learning organization: Towards an integrated model. *The Learning Organization*. 11(2): 129-144.
- Outram, P. O. (2007). Organizational commitment and intent to turnover. Unpublished PhD Thesis.
- Pak, O. G. (2007). The effect of organizational learning on organizational commitment, job satisfaction, and work performance, Unpublished PhD Thesis, Universiti Putra Malaysia. Graduate school of Management.
- Park, S. (2007). Relationship among managerial coaching in organization and the outcomes of personal learning, organizational commitment, and turnover intention. Unpublished PhD Thesis.

- Park, S. M., & Rainey, H. G. (2007): Antecedents, mediators, and consequences of affective, normative, and continuance commitment empirical tests of commitment effects in federal agencies. *Review of Public Personnel Administration*. 27(3): 197-226.
- Pallant, J. F.(2011). *SPSS Survival Manual: a step guide to data analysis using SPSS* (4th ed). Crows Nest. NSW: Allen & Unwin.
- Patterson, G. (1999). The learning university, *The Learning Organization*, 6(1): 9-17.
- Pearn, M., Roderick, C. & Mulrooney, C. (1995). *Learning Organization in Practice*. London: Mc Graw-Hill, Inc.
- Pedler, M. Burgoyne, J. & Boydell, T. (1988). *Learning company project: A report on work under-taken October 1987 to April 1988*. The Training Agency. Sheffield.
- Pedler, M., Burgoyne, J. & Boydell, T. (1991). *The learning company*. London: McGraw-Hill, Inc.
- Pedler, M., Burgoyne, J. & Boydell, T. (1995). A guide to the learning organization. *Industrial and Commercial Training*. 27(4): 21-25.
- Penley, L. F. & Gould, S. (1988). Etziobi's model of organizational involvement: A perspective for understanding commitment to organizations, *Journal of Organizational Behavior*. 9(6): 43-59.
- Peterson, R. A. (2000). *Constructing affective questionnaire*. Thansands Oaks, C. A: Sage.
- Peterson, M.W. (1999). The role of institutional research: From improvement to redesign. In Volkwein, J.F. (Ed.), *What is institutional research all about? A critical and comprehensive assessment of the profession*: 83-103. New directions for institutional research. San Francisco: Jossey-Bass Inc.
- Pfeffer, J. (1994). *Competitive advantage through people*. Boston: MA: Harvard University Press.
- Philips, B.T. (2003). A four-learning organization benchmark implementation model, *The Learning Organization*. 10(2): 98-105.
- Pierre, J. Richard, Timothy, M. Devinney, George, S. Yip & Gerry, Johnson, (2003). Measuring organizational performance: towards methodological best practice, *Journal of Management*, 35(3): 718-804.

- Pimapunsri, P. (2008). Factors affecting learning organization culture and hotel managers; leadership styles in Thailand, *Educational Journal of Thailand*, 2 (1): 34-43.
- Podsakoff, P. M., MacKenzie, S. B., Paine, J. B. & Bachrach, D. G. (2000). Organizational citizenship behaviors: a critical review of the theoretical and empirical literature and suggestions for future research, *Journal of Management*, 26 (3): 513-563.
- Pool, S. (2000), The learning organization: motivating the employees by integrating TQM philosophy in a supportive organizational culture, *Leadership & Organization Development Journal*, 21(8): 373-378.
- Porter, L.W., Steers, R. M., Mowday, R. T., & Boultan, P.V. (1974). Organizational commitment, Job satisfaction, and turnover among psychiatric technicians. *Journal of Applied Psychology*. 5: 603-609.
- Porter, L.W., & Smith, F.J. (1970). The etiology of organizational commitment. Unpublished PhD Thesis. University of California, Irvine.
- Popova, I. Irina, V. & Cseh, M, (2015). The meaning of organizational learning: A meta paradigm perspective, *Human Resource Development Review*, 14(3), 299-331.
- Power, J. & Waddell, D. (2004). The link between self-managed and learning organizations using performance indicators, *The Learning Organization*, 11(3): 244-259.
- Preacher K. J. and Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior research methods, Instruments and computers*, 36: 7170731.
- Preacher K. J. and Hayes, A. F. (2008). Contemporary approaches to assessing mediation in communication research. In A. F. Hayes, M. D. Slater, & L. B. Snyder (Eds.), *The Sage sourcebook of advanced data analysis methods for communication research*, pp.13-54, Thousand Oaks, CA: Sage.
- Randall, D.M. (1990). The consequences of organizational commitment: Methodological investigation, *Journal of Organizational Behaviour*. 11:361-378.
- Randall, D.M. & Fernandes, M.F. (1992). Social desirability bias in ethics research, *Business Ethics Quarterly*. 2(2): 183-205.

- Redding, J. (1997). Hardwiring the learning organization. *Training and Development*. 51(8): 61-67.
- Reichers, A. E. (1985). A review and reconceptualization of organizational commitment. *Academy of Management Review*, 10: 465-476.
- Reyes, R. (2001). Teachers and their workplace commitment, performance, and productivity, Newbury Park CA: Sage.
- Rhodes, J., Hung, R., Lok, P., Lien, BYH, & Wu, CM., (2008). Factors influencing organizational knowledge transfer: implication for corporate performance, *Journal of Knowledge Management*, 12(3): 84-100.
- Robbins, S.P., & Coulter, M. (2002). *Management* (7th ed.). Prentice-Hall International.
- Robey, D. & Sales, R. (1994), 3th ed, McGraw-Hill.
- Roffe, I. (2002). E-learning: engagement, enhancement and execution, *Quality Assurance in Education*. 10(1): 40-50.
- Rose, R., Kumar, N. & Pak, O. (2009). The effect of organizational learning on organizational commitment, job satisfaction and work performance, *The Journal of Applied Business Research*. 25 (6): 55-65.
- Roth, G., & Kleiner, A. (1995). *Learning about organizational learning; Creating a learning history*, MIT Center of Organizational Learning. Cambridge, MA.
- Rothaermel, F.T., & Deeds, D.L. (2004). Exploration and exploitation alliances in biotechnology: a system of new product development. *Strategic Management Journal*. 25(3): 201.
- Rowden, R. (2001), The learning organization and strategic change: *SAM Advanced Management Journal*. 66(3): 11-16.
- Rowley, J. (1998). Creating a learning organization in Higher Education. *Industrial and Commercial Training*. 30(1): 16-19.
- Ruane, J. R. (2005). *Essentials of research methods: a guide to social science research*, (2nd ed.). Wiley-Blackwell.
- Ruokolainen, M. (2011). Do organizational and job-related factors relate to organizational commitment? a mixed methodology study of the associations. University of Jyväskylä studies in education. Psychology and Social Research Academic PhD dissertation,

- Runhaar, P., Konermann, & Sanders, K. (2013). Teachers' organizational citizenship behavior: considering the roles of their work engagement, autonomy and leader-member exchange. *Teaching and Teacher Education*, 30: 99-108.
- Sahaya, N. (2012). A leavening organization as a mediator of leadership style and firms' financial performance, *International Journal of Business & Management*, 7(14): 96-113.
- Salant, P. & Dillman, D. A. (1994). *How to conduct your own survey*, New York: John Wiley & Sons Inc.
- Samad, S. (2005). Unraveling the organizational commitment and job performance relationship: Exploring the moderating effect of job satisfaction. *The Business Review Cambridge*, 4(2): 79-84.
- Saunders, M., Lewis, P. & Thornhill, A. (2009). *Research methods for business students* (5th ed). England, Pearson Education Limited.
- Schon, E. (1996). Three cultures of management: The key to organizational learning. *Sloan Management Review*, 38(1): 9-20.
- Scholl, R. W. (1981). Differentiating organizational commitment from expectancy as a motivating force. *Academy of Management Review*. 6: 589-599.
- Scheuren, F. (2004). *What is survey?* Alexandria, VA: American statistical association.
- Sekaran, U. (2003). *Research methods for business: A skill-building approach* (5th ed). New York, John Wiley & Sons.
- Sekaran, U. (2001). *Research methods for business: A skill-building approach* (4th ed). New York, John Wiley & Sons.
- Sekaran, U. (2000). *Research methods for business: A skill-building approach* (3th ed). New York, John Wiley & Sons.
- Selden, G., & Watkins, K. (2001). Learning organizations: What impact do they really make? *Troy State University Business and Economics Review*. 25(2), 8-12.
- Selden, G. (1998). Dimensions of the learning organization in family-run businesses. Unpublished PhD Thesis. University of Georgia, Athens.
- Senge, P. M. (1990). *The Fifth Discipline: The Art and Practice of the Learning Organization*. New York: Doubleday.

- Senge, P. M., McCabe, N.C., Lucas, T., Smith, B., Dutton, J. & Kleiner, A. (2000). *Schools that Learn: A Fifth Discipline Fieldbook for Educators, Parents, and Everyone Who Cares about Education*. New York: N. Y: Doublday.
- Senge, P.M., (1994). *The Fifth Discipline Fieldbook: Strategies and Tools for Building a Learning Organization*. Harvard Press.
- Sharifirad, M. S. (2011). The dimensions of learning organization questionnaire (DLOQ): A cross-cultural validation in an Iranian context, *International Journal of Manpower*, 32(6): 661-676.
- Simonin, B.L., (1997). The importance of collaborative know-how: An empirical test of the learning organization. *Academy of Management Journal*.40(5): 1150-1174.
- Simon, H.A. (1996). *The Sciences of the Artificial*. Cambridge, MA: MIT Press.
- Simons, P.R.J., Germans, J., & Ruijters, M. (2003). Forum for organizational learning combining learning at work, organizational learning and training in new ways. *Journal of European Industrial Training*. 27(1): 41-48.
- Singleton, R. A. & Straits, B. C.(2005). *Approaches to social research* (4th ed.). Oxford University Press.
- Sinkula, JM. (1994). Market information processing and organizational learning. *J. Mark*. 58: 35-45.
- Sobel, M. E. (1982). Asymptotic confidence intervals for indirect effects in structural equation models. *Sociological Methodology*, 13: 290-312.
- Solinger, O. N., Olffen, W. V., and Roe, R. A. (2008). Beyond the three-component model of organizational commitment. *Journal of Applied Psychology*. 93(1): 70-82.
- Song, J. H, Chermack, T.J. & Kim, W. (2013). An Analysis and Synthesis of DLOQ-Based Learning Organization Research, *Advances in Developing Human Resources*, 1(23): 1-18.
- Song, J.H., Joo, B.K., & Chermack, T. J. (2009). The dimensions of learning organization questionnaire (DLOQ): A validation study in a Korean context. *Human Resource Development Quarterly*, 20(1): 43-64.
- Song, J. H., & Chermack, T. J. (2008). A Theoretical Approach to the Organizational Knowledge Formation Process: Integrating the concepts of Individual Learning and Learning Organization Culture, *Human Resource Development Review*, 7(4): 424-442.

- Song, J.H. & Kim, H. M. (2009). The integrative structure of employee commitment, *Leadership & Organization Development Journal*, 30(3): 240-255.
- Song, J.H., Kim, H. M. & Kolb, J. A. (2009). The effect of learning organization culture on the relationship between interpersonal trust and organizational commitment, *Human Resource Development Quarterly*, 20(2): 147-167.
- Somerville, M. & McConnell-Imbriotis, A. (2004). Applying the learning organization concept in a resource squeezed service organization. *Journal of Workplace Learning*. 16(4): 237-248.
- Sta. Maria. R.F., & Watkins K. E.(2003). Perception of learning culture and concerns about the innovation on its use: a question of level of analysis. *Human Resource Development International*. (6) 4: 491-508.
- Sta. Maria. R.F. (2003), Innovation and organizational learning culture in the Malaysian public sector. *Advances in Developing Human Resource*,5(2): 205-214.
- Sta. Maria. R.F. (2002). *Learning for a change: A guide to developing learning cultures in the Malaysian public sectors*. National Institute of Public Administration (INTAN).
- Sta. Maria. R.F. (2000). Perception of learning culture concerns about the innovation, and their influence on use of an on-going innovation in the Malaysian Public sector. Unpublished PhD Thesis: University of Georgia.
- Steers, R. M. (1977). Antecedents and outcomes of organizational commitment *Administrative Science Quarterly*. 22: 46-56.
- Suliman, A. & Iles, P., (2000), Is continuance commitment beneficial to organizations? Commitment-performance relationship: a new look. *Journal of Managerial Psychology*.15(5): 407-422.
- Sun, P.Y.T. & Scott, J.L. (2003a), Exploring the divide-organizational learning and learning organization. *The Learning Organization*. 10(4): 202-215.
- Sun, P. Y. T., & Scott, J. L. (2003b). Towards better qualitative performance measurement organizations, *The Learning Organization*. 10(4): 201-215.
- Sun, H. C. (2003). Conceptual clarification for organizational learning, learning organization and a learning organization, *International Human Resource Development*. 6(2): 153-166.
- Tabachnick, B. G.,& Fidell, L. S. (2001). *Using multivariate statistics* (4th ed). Needham Heights, MA: Allyn & Bacon.

- Tanaka, J.S. (1993). Multifaceted conceptions of fit in structural equation models. In K.A. Bollen, & J.S. Long (eds.), *Testing structural equation models*. Newbury Park, CA: Sage.
- Teare, R., & O' Hern, J. (2000). Challenges for service leaders: Setting the Agenda for the virtual learning organization, *The Journal of Psychology*, 135(2): 226-236.
- Terre-Blanche, M., Durrheim, K. & Painter, D.(2006). *Research in practice: applied methods for the social sciences*, Cape Town: University of Cape Town Press.
- Thakur N. & Chudhuri, M. (2015). Learning organization notion in Indian banking industry, *Journal of Business and Management*, 17(3): 32-38.
- Thomsen, H.K. & Hoest, V. (2001). Employees' perception of the learning organization, *Management Learning*, 32(4): 469-491.
- Thomsen, B. (2004). *Exploratory and confirmatory factor analysis: understanding concepts and applications*. Washington, DC: American Psychological Association.
- Trang, I., Armanu, Sudrio, A., & Noermijati. (2013). Organizational commitment as mediation variable influence of work motivation, leadership style and learning organization to the employees' performance, *Journal of Business and Management*, 7 (2): 12-25.
- Trevino, M.L. (2004). Learning Organization Practices of Procurement Organizations: A Key to Increasing Organ Donation. Unpublished PhD Thesis. University of the Incarnate Word.
- Trochim, W., & Donnelly, J.P. (2007). *The research methods knowledge base* (3rd ed.). Mason, OH: Cengage Learning-Atomic Dog.
- Tsang, Eric, W.K. (1997). Organizational learning and learning organization: a dichotomy between descriptive and perspective research. *Human Relations*, 50 (1): 73-89.
- Tseng, C.C. (2010). The Effect of learning organization practices on organizational commitment and effectiveness for small and medium-sized enterprises in Taiwan, Unpublished Doctoral Thesis, University of Minnesota.
- Tynjala, P. (2008). Perspectives into learning at the workplace. *Educational Research Review*, 3, 130-154.

- Usefi, S., Nazari, R. & Zargar, T. (2013). The relationship between organizational learning and organizational commitment in sport organizations, *Management and Administrative Sciences Review*, 2 (6): 682-688.
- Vandenbergh, C. Bentein, K. Michon, R., Chebat, J. C., Tremblay, M., and Fils, J. F. (2007). An examination of the role of perceived support and employee commitment in employee-customer encounters. *Journal of Applied Psychology*. 92(4): 1177-1187.
- Van Dijk, M.S. (2004). Understanding the employee organization membership. A study measuring organizational commitment, Psychological contracts, and captivation and identification in three government organizations. Unpublished PhD Thesis. University of Minnesota.
- Vince, W. (2002). The impact of emotion on organizational learning. *Resource Development International*, 5(1): 73-86.
- Visser, JK, & Stuter, E. (2004). Performance measures for a telecommunications company, *IEEE Xplore*, 1-7.
- Vogt, W. P. (1999). *Dictionary of statistics and methodology* (2nd ed). Thousand Oaks. CA: Sage.
- Walton, J. (1999). *Strategic Human Resource Development*. Englewood Cliffs, NJ: Prentice Hall. p.410.
- Wallace, J. E. (1997). Becker's side-bet theory of commitment revisited: Is it time for a moratorium or a resurrection? *Human Relations*, 50: 727-749.
- Wang, C.L. & Ahmad, P.K. (2003), Organizational learning, A Critical review, *The Learning Organization*. 10(1): 8-17.
- Wang, X. (2005). Relationships among organizational learning culture, job satisfaction, and organizational commitment in Chinese state-owned and privately-owned enterprises. Unpublished PhD Thesis. University of Minnesota (St. Paul, MN).
- Wang, X., Yang, B. & McLean G. N. (2007). Influence of demographic factors and ownership type upon organizational learning culture in Chinese enterprises. *International Journal of Training and Development*. 11(3): 154-165.
- Watkins, K. E. & Marsick, V. J. (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.

- Watkins, K. E. & Marsick, V. J. (1999). Sculpting the learning community. *NASSP Bulletin*, 83(604): 78-87.
- Watkins, K. E. & Marsick, V. J. (1997). Dimensions of the learning organization, partners for the learning organization Warick.
- Watkins, K. E. & Marsick, V. J. (1996). *In action: creating the learning organization*, American Society for Training and Development Press, American Alexandria, VA.
- Watkins, K. E. & Golembiewski, R.T. (1995). Rethinking organization development for the learning organization. *The International Journal of Organizational Analysis*, 3(1): 86-101.
- Watkins, K. E. & Marsick, V.J. (1993). *Sculpting the learning organization: Lessons in the art and science of systematic change*. Jossey Bass. San Francisco, CA.
- Watkins, K. E., & O' Neil, J. (2013). The dimensions of the learning organization questionnaire: a nontechnical manual. *Advances in Developing Human Resources*, 15(2), 133-147.
- Watkins, K. E. (1993). The global corporation: Education and training programs in North America. The sixteenth International Conference on Schooling. Germany.
- Wei, CC., Choy, CS. & Yew, PHP. (2009). Is the Malaysian telecommunication ready for knowledge management implication? *Journal of Knowledge management*, 13(1): 69-87.
- Weibo, Kaur & Jun, (2010). New development of organizational commitment: a critical review (1980-2009). *African Journal of Boniness Management Commitment*,4(1): 12-20.
- Wedly, T. G. (2009). Learning organization and transfer: strategies for improving performance. *The Learning Organization*, 16(1): 58-68.
- Wild, R.H., Griggs, K. A., & Downing, T. (2002). A framework for e-learning as tool for knowledge Management. *Industrial Management & Data Systems*. 102(7): 371-380.
- Yang, B., Watkins, K.E., & Marsick, V.J. (2004). The Construct of the learning organization: dimensions, measurement, and validation. *Human Resource Development Quarterly*. 15(1): 31-55.
- Yang, B.(2003). Identifying valid and reliable measures for dimensions of a learning culture. *Advances in Developing Human Resources*, 5(2): 152-162.

- Yang, B., Watkins, K.E. & Marsick, V.J. (1998). Examining construct validity of dimensions of the learning organization questionnaire. In R. Torraco (Ed.). Proceedings of the 1997 annual Academy of Human Resource Conference. Chicago: Academy of Human Resource Development.
- Yeo, R. (2002a). From individual to team learning: Practical perspectives on the learning organization. *Team Performance Management*. 8(7): 157-170.
- Yeo, R. (2002b). Learning within organizations: Linking the theoretical and empirical perspectives. *Journal of Workplace Learning*. 14(3): 109-122.
- Yeo, R. (2003a). The tangibles and intangibles of organizational performance. *Team Performance management*. 9(7): 199-204.
- Yeo, R. (2003b). Linking organizational learning to organizational performance and success: Case study: *Leadership & Organization Development Journal*. 24(2): 70-83.
- Yousef, D. A. (2003). Validating the dimensionality of Porter *et al.*'s measurement of organizational commitment in a non-Western culture setting.
- Yousef, D. A. (2000). Organizational commitment as a mediator of the relationship between Islamic work ethic and attitudes towards organizational change. *Human Relations*. 53(4): 513-537.
- Yulk, A. (1998). *Leadership in Organization*. Upper Saddle River, NJ: Prentice Hall.
- Zaini, U. (2009). *The Elevation of Higher Learning*. Universiti Teknologi Malaysia.
- Zemke, R. (1999). Why organizations still aren't learning. *Training*. 36(9), 40-45.
- Zhang, D., Zhang, Z. & Yang, B. (2004). Learning organization in mainland China: Empirical research on its application to Chinese State-owned enterprises. *International Journal of Training and Development*. 8(4): 258-273.
- Zhou, K.Z., Gao, G. Y., Yang, Z., & Zhou, N. (2005). Developing Strategic Orientation in China: Antecedents and Consequences of market and innovation orientations. *Journal of Business Research*. 58(8): 1049-1058.
- Zikmund, W. G. (2003). *Exploring Marketing Research*, Cincinnati, Ohio: South Western, Thomson.