

*Full Length Research Paper*

# Mediating effects of affective organizational commitment and psychological contract in the relationship between strategic training practices and knowledge sharing

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Accepted 19 January, 2014

This study contributes to the development of the knowledge management and strategic training literatures through developing the linkages between them. The study sample comprised 301 employees from universities of medical sciences in Iran. Multiple and simple linear regression and path analysis were used to test the direct and mediated relationships among the variables. The study considers how motivation to learn, training attitudes, and perceived support of employees to their knowledge sharing may be shaped by their level of affective commitment and psychological contract. Results highlight significant relationships between (a) strategic training practices and affective organisational commitment, (b) affective organisational commitment and turnover intentions, (c) knowledge sharing and turnover intentions, (d) affective organisational commitment and knowledge sharing, (e) strategic training practices and psychological contract, (f) psychological contract and knowledge sharing, and (g) psychological contract and affective organisational commitment. Results reveal that whereas strategic training practices are positively related to affective organisational commitment and psychological contract, both affective organisational commitment and knowledge sharing are negatively associated with turnover intention. In addition, the results provide evidence that affective organisational commitment and psychological contract have a significant mediating effect on the relationship between strategic training practices and knowledge sharing. Managerial and practical implications of the findings are highlighted.

**Key words:** Motivation to learn, training attitude, perceived support, affective commitment, psychological contract, knowledge sharing, and turnover intention.

## INTRODUCTION

Since the mid-1990s, knowledge management has emerged as a subject of great interest to both academics and organizational practitioners. Knowledge management is actually an evolved form of human resource management

practices, including training. In fact, the role of human resource management in knowledge management has been discussed by a number of researchers and practitioners. For instance, the role of human resource in knowledge management in facilitating the dissemination of learning through workshops (Armstrong, 2000); the role of human resource in creating and using knowledge (Garavan et al., 2000); and the role of human resource in choosing the appropriate knowledge management

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programme, creating knowledge management leadership and team (Soliman and Spooner, 2000). While the importance of human resource management issues has been widely articulated, the relationship between strategic training practices and knowledge sharing is yet to be explored.

According to Chan and Chew (2008), the level of employees' commitment is closely linked to their attitudes and behaviours at their workplace. For example, the levels of commitment have been found to influence turnover intentions. Thus, addressing the linkages between the levels of employees' commitment and their knowledge sharing will contribute to an improved understanding of what encourages or discourages people with regard to sharing their knowledge. Many empirical research showed that there is a link between human resource management practices and organizational commitment, and that an individual's commitment to an organization can be significantly influenced by organization's managerial practices (Stup, 2006; Roca-Puig et al., 2007; Fiorito et al., 2007). More specifically, most studies have been focusing on training and organizational commitment (Tanannenbaum et al., 1991; MacDuffie, 1995; Chew and Chen, 2008), salary levels and organizational commitment (Ritzer and Trice, 1969), performance reward contingencies and organizational commitment (Lee, 1971), promotion and organizational commitment (Kanter, 1977) and profit sharing and organizational commitment (Coyle-Shapiro et al., 2002).

However, research focusing on the impact of strategic human resource management practices is yet to be found. The concept of strategic human resource management practices is based on the human resource management philosophy that emphasizes the strategic nature of human resource (Guest, 1998; Armstrong, 2000; Walton, 1985; Lundy and Cowling, 1996). According to Armstrong (2000) the aim of strategic human resource management practices is to generate strategic capability of organization to ensure that it has skilled, committed, and well motivated employees. This aim shows that the rationale for implementing strategic human resource management is to manage people effectively in the long run. In other words, strategic human resource management practices focuses on the specific plans of what needs to be done and what needs to be changed for the employees which will improve individual effectiveness.

Unfortunately, how strategic human resource management practices and organizational commitment are related is unclear. Understanding how they are related is essential since strategic human resource management practices have been claimed to affect behavior in the organization (Guest, 1998; Meyer and Allen, 1997; Tanannenbaum et al., 1991). Thus, this study will be addressing this issue. Nevertheless, this paper only explores

the relationship between strategic training practices and affective commitment.

This research paper then considers what specific factors within organizations would affect employees' knowledge sharing, and the type of training policies and practices that should be adopted. It will also focus on psychological contract as a useful factor for linking strategic training practices and affective organizational commitment and knowledge sharing. Thus, this study will investigate the mediating effects of affective commitment and psychological contract in the relationship between strategic training practices and knowledge sharing.

## REVIEW OF THE LITERATURE

### Strategic training

Strategic human resource management researchers argued that human resource management practices including training will affect behavior of individuals in their efforts to formulate and implement the strategic needs of the organization (Guest, 1998; Meyer and Allen, 1997). Tanannenbaum et al. (1991) found a strong positive correlation between commitment and employees' motivation for training. In fact, Meyer and Allen (1991) identified that employees exposed to more training opportunities are likely to exhibit higher levels of affective commitment. According to Lang (1992), perhaps training should be specifically designed to achieve increased organizational commitment. On the other hand, Salaman et al. (2005) emphasized that organizational commitment is a factor of work-related attitudes, and strategic training practices have significant impact on individual effectiveness.

A number of possible antecedents had been identified by various studies in the relationship between organizational commitment and training such as career, job related, personnel (Mathieu and Zajac, 1990), satisfaction (Tannenbaum et al., 1991), self-efficacy (Saks, 1995), social support (Facteau et al., 1995), facilities, materials equipment (Gomez-Mejia et al., 1995). In addition, strategic approach to training as an implication of a strategic human resource management practices involves abandoning the mindset and practices of the traditional practice of human resource management (Mello, 2002).

The exchange theory (Blau, 1964) suggests that training can be viewed as an investment in the relationship between an organization and the employees and can contribute to organizational commitment. The more positive the training experience, the greater can be the commitment to the organization. Organizational commitment is positively related to the employee's attitude towards training and training motivation (Carlson et al., 2000).

Cook and Rice (2003) noted that social exchange is the process by which individuals and group give resources to other social individuals, group and organization and receive resources from them. According to Rousseau (1989) the terms and conditions of this reciprocal exchange between organizations and its employees are defined within in the psychological contract. He also described that psychological contract is an employee's belief regarding terms and conditions of an exchange relationship with their organization. It constitutes of employment obligations, embedded in the context of social exchange. Strategic human resource management practices including training affect the psychological contract (King, 2000; Guzzo and Noonan, 1994).

A psychological contract is created when organizations and their representatives convey promises of future inducements (training) to the employees in exchange for some contribution from the employees which help them understand terms of their employment (Rousseau and Greller, 1994). It has been argued that strategic training practices can send strong messages to individuals regarding what an organization expects of them and what they can expect in return. Thus, strategic training practices are seen to play an important role as message senders, shaping terms of the psychological contracts (Rousseau and Wade-Benzoni, 1994). In fact, these practices foster appropriate psychological contract (Rousseau and Greller, 1994), and employees' interpretations of how training may affect their psychological contract with their employer. Therefore, this study theorizes that industries managers can influence work-related attitude such as affective organizational commitment through the maintenance of the strategic training practices and more effective they will be at reducing turnover intention and enhancing effectiveness.

One of the most important keys to developing successful training programmes in organizations is strategizing the training which involves needs assessment (Mello, 2002). Although needs assessment involves three levels of analysis such as organization, task, and personal, this study will theorize that the managers can influence affective organizational commitment through individual level of needs assessment of strategic training since this level of needs assessment considers employees' commitment. Thus, this analysis is based on personnel needs assessment of training that focuses on the organization-person fit (Daley, 2002) that may lead to affective organizational commitment.

Importantly affective organizational commitment provides a basis for understanding the development of linkages between individuals and organizations (Chew and Chen, 2008). Although some empirical support shows that person-organization fit is positively linked with organizational commitment, and is negatively related to turnover intention (Becker et al., 1996; Chew and Chen,

2008), there remains a shortage of empirical support for the notion that needs assessment of personnel is essential if training is to be linked to affective organizational commitment.

Strategic human resource management is concerned with longer-term people issues (Armstrong, 2000) and thus, it is necessary to consider long-term training strategies such as providing appropriate support, and addressing personal attitude and motivation to learn within the organizations, and ensuring perceived support.

### **Motivation to learn**

The motivational level of employees is a foundational component of the effectiveness of organizational training programme. Noe and Wilks (1993) argued, "motivation to learn, and evaluation of previous development experiences have a direct effect on employee's participation in development activities". They developed and tested a conceptual model of development activity that was based on work conducted by Dubin (1990). Farr and Middlebrooks (1990) found that motivation to learn, perception of benefits and work situation perceptions had considerable, unique effects on employees' development activity.

### **Perceived support**

Huczynski and Lewis (1980) concluded that issues important to whether or not trainees use their training include whether they attended the course on their own initiative; how helpful they believed the training would be to them in their jobs; and the motivational climate of the organization, in particular, supervisor support. In addition, employees are often influenced by the level of and the manner in which they interact with their supervisors (Eisenberger et al., 2002). When supervision creates an environment where there is a sense of belonging, and demonstrates effective training, employees will display strong feelings of commitment (Ammeter and Dukerich, 2002). In addition, supervisor support has been shown to enhance employee job attitudes such as organizational commitment (Thompson and Prottas, 2005) and is negatively related to turnover intentions (Thompson et al., 1999). Supervisor support, a source of social support, is related to work attitude (Hammer et al., 2009) and they are responsible for training. They motivate employees toward acceptable behaviors such as commitment (Caykoylu, et al., 2007). Furthermore, training attitudes indicate levels of good or bad feeling about training. Hicks (1984) argued that if employees are given reasonable information about the training programme, the employees can see how training fits with their needs. So,

if the employees feel the match is good, they should have a heightened desire to learn (Porter et al., 1975) which is a prerequisite for strategizing training. O'Dell and Grayson, (1998) suggested that the role of senior management is to support a learning organization and to promote knowledge sharing. However, the evidence is sketchy and work remains to be done to determine whether knowledge sharing efforts need to be organization wide efforts with senior management involvement.

### **Training attitudes**

Training attitudes in strategizing training is a dimension of personal analysis needs. Hicks (1984) indicated that employees who received the reasonable training will more likely to perceive the beneficial for them, and they will also be more committed to their decisions to attend the training. If employees in the organization have learned new skills and knowledge and successfully implemented this learning to enhance the performance of the organization, they should be compensated effectively. Based on these arguments, the following hypotheses are developed.

H<sub>1</sub>: Strategic training (motivation to learn, perceived support, and training attitudes) will be positively related to affective organizational commitment.

H<sub>1a</sub>: Motivation to learn will be positively related to affective organizational commitment.

H<sub>1b</sub>: Perceive support will be positively related to affective organizational commitment.

H<sub>1c</sub>: Training attitudes will be positively related to affective organizational commitment.

### **Affective organizational commitment**

Meyer and Allen (1991) argued that, regardless of the various definitions, committed employees are more likely to remain in the organization than are uncommitted employees. What differs across definitions is the nature of the psychological state being described. According to Meyer and Allen (1991), "Affective refers to the employee's emotional attachment to, identification with, and involvement in the organization. Employees with a strong affective commitment continue employment with the organization because they want to do so" (67). Meyer et al. (1990) viewed affective organizational commitment as components of attitudinal commitment. However, according to Iverson and Buttigieg (1999), affective organizational commitment is the most consistent with the conceptual and operational definition of attitudes, so it has been termed "attitudinal commitment" (308). In other words, affective commitment is a psychological and

individual-level (Elias, 2009). Consequently, this study focuses on affective organizational commitment in Meyer and Allen's component commitment model.

### **Turnover intention**

A great deal of research has been conducted that attempts to link employee attitudes (e.g., affective organizational commitment) with behavioral factors (e.g., turnover intention) (Zhao et al., 2007). In fact, affective organizational commitment plays a central role in the turnover literature. Two recent meta-analyses conducted by Griffeth et al. (2000) and Meyer et al. (2002) confirm that affective organizational commitment is well established as an important antecedent of withdrawal behaviors. They also showed that intention to leave is an important antecedent to actual turnover. Committed employees have been found to be less likely to leave an organization than those who are uncommitted (Angle and Perry, 1981).

As we discussed earlier, affective organizational commitment refers to the employee's emotional attachment, as well as identification with and involvement in the organization. It is likely that committed employees may therefore remain because they wish to maintain their membership in order to facilitate organizational goals (Suliman and Iles, 2000). Although, a more resent research conducted by Hsu (2009) showed no significant relationship between organizational commitment and turnover intention, most researchers have found a significantly negative relationship between affective organizational commitment and turnover intention (Addae et al., 2006; Zhao et al., 2007; Pare and Tremblay, 2007). In addition, the level of commitment and capability to encourage knowledge sharing will make knowledge management successful (Scarborough and Carter, 2000). By managing knowledge, organizations can ensure that knowledge-workers stay with the organization (Beijerse, 1999). Therefore, commitment can be linked to knowledge sharing attitudes and behaviors. It seems to be logical to expect that affective commitment will affect intention to quit, and thus we hypothesize that:

H<sub>2</sub>: Affective organizational commitment will be negatively related to turnover intention.

### **Psychological contract**

Psychological contracts are defined "as the beliefs individuals hold regarding the terms and conditions of the exchange agreement between themselves and their organizations" (Rousseau, 1995) or an "individual's belief in the terms and conditions of a reciprocal exchange

agreement between the focal person and another group” (Rousseau, 1989). In other words, “psychological contracts refer to employees’ perceptions of what they owe to their employers and what their employers owe to them” (Robinson 1996). Schein (1965) emphasized the importance of the psychological contract concept in understanding and managing behavior in organizations. So, psychological contract theory can be used to understand commitment. Although employee perceptions of the psychological contract and commitment to the organization are theoretically linked, there is some empirical support for this relationship (Lester et al., 2002; Sels et al., 2004). According to King (2000) and Guzzo and Noonan (1994), strategic human resource management practices including training affect the psychological contract. Therefore, it was predicted that psychological contract mediates the relationship between strategic training practices and affective organizational commitment.

H<sub>3</sub>: Psychological contract will be positively related to affective organizational commitment.

H<sub>4</sub>: Strategic training practices (motivation to learn, perceived support, and training attitudes) will be positively related to psychological contract.

H<sub>4a</sub>: Motivation to learn will be positively related to psychological contract.

H<sub>4b</sub>: Perceived support will be positively related to psychological contract.

H<sub>4c</sub>: Training attitudes will be positively related to psychological contract.

H<sub>5</sub>: Psychological contract will be positively related to knowledge sharing.

H<sub>6</sub>: Psychological contract will mediate the relationship between strategic training practices and knowledge sharing.

## Knowledge management

The retention of employees with valuable knowledge may be an element of an organization’s knowledge management strategy as its attempts to induce its employees to share their knowledge. Therefore, when linking commitment to knowledge sharing, the issue of intention to stay is as important as having positive attitudes towards knowledge sharing. Employees with high levels of organizational commitment are less likely to leave, and will probably be more willing to provide extra discretionary effort and be generally more willing to share their knowledge within the organization. The strategic human resource management perspective assumes that it is possible to develop a set of training strategies which facilitate knowledge sharing, and that these strategies will be universally applicable to all types of organization. In fact, this perspective is closely associated with the issue

of affective commitment. According to Scarbrough and Carter (2000), strategic human resource management will ensure the level of commitment and capability to encourage knowledge sharing that will make knowledge management successful. It is clear that strategic human resource management practices including training is related to retaining knowledge employees. Thus, by managing knowledge, organizations can improve commitment between knowledge-employees. Having suggested that commitment can be linked to knowledge sharing attitudes and behaviors, it is necessary to conceptualize the relationship between them, which is done through Figure 1. Based on these arguments, the following hypotheses are developed:

Hypothesis 7: Affective commitment will be positively related to knowledge sharing.

Hypothesis 8: Affective commitment will mediate the relationship between strategic training practices and knowledge sharing.

Hypothesis 9: knowledge sharing will be negatively related to turnover intention.

## The Research model

Based on the past researches presented in the literature review, a structural model of affective organizational commitment and its correlations are developed. The model postulates affective organizational commitment and psychological contract as mediating factors in the relationship between strategic training practices and knowledge sharing as shown in Figure 1.

## METHODOLOGY

### Sample and procedures

Four universities of medical science were places of conducting this study. According to the data released by Health Information Management (2 Dec, 2009), there were nine universities of medical sciences listed in the Webometric Ranking of Top Iranian Medical Universities and out of them, only four universities were top Iranian Medical universities. Sampling frame consisted of non-academic employees in the administrative unit of these universities. The sites for this study were four universities of medical sciences in Iran. The four universities were (1) Isfahan University, (2) Tehran University, (3) Iran University, and (4) Mashhad University of medical sciences. Sample has two features. First, it is practical. Second, it produces more reliable result (Salkind, 2000). In addition, it comprises selected members to represent the population views of a particular topic. There were approximately 2400 non-academic employees from 500 non-academic employees in each administrative unit of these universities. Then the Krejcie and Morgan (1970) formula is undertaken to determine the sample size of the study. The calculation using the 0.05 confidence demonstrates that the sample size for this study was 334. Of 400 employees selected for the sample, 325 employees returned their questionnaires. After deletions of 24

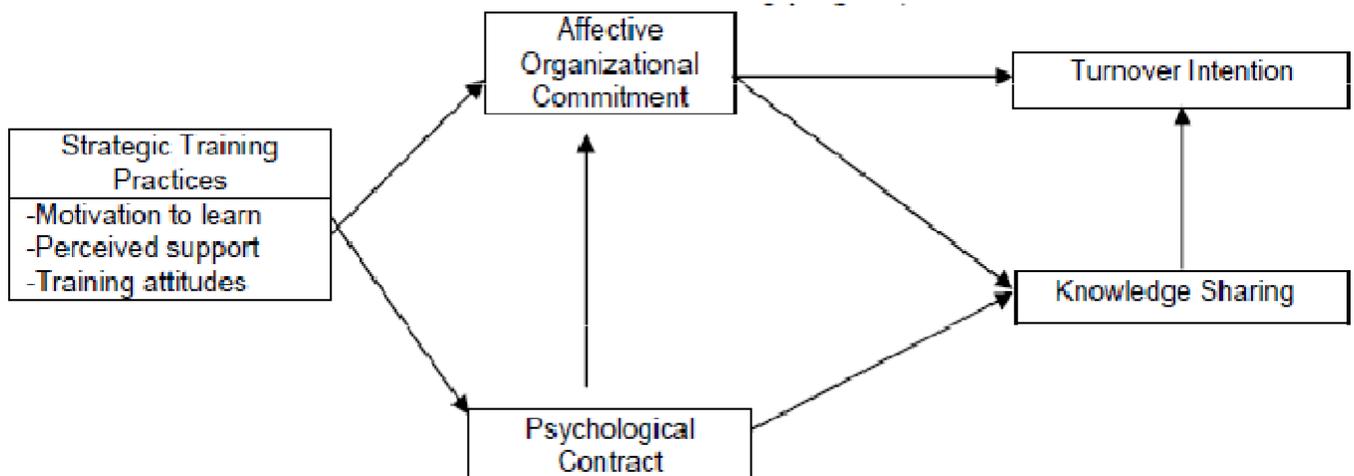


Figure 1. Conceptual model.

unusable missing cases, the final data set consisted of 301 respondents for an overall response rate of 75.25%. The university response rate for each of the four universities varied between 68 and 92%.

### Measurements

All question items in the survey questionnaire were measured on a five-point Likert scale (1 = strongly disagree; 5 = strongly agree).

**Motivation to learn:** motivation to learn scale by Noe and Schmitt (1986) comprises 7 items and the internal consistency reliability for this dimension was 0.88. A study by Bartlett (1999) has revealed that Noe and Schmitt's motivation to learn measure is applicable for health-care workers and administrators. He found that the internal consistency reliability for the motivation to learn with  $\alpha$ -Cronbach's value is 0.87. In this study, the motivation to learn is reported to have a high reliability of measurement ( $\alpha = 0.85$ ) which is above the minimum recommended value of 0.7 DeVellis (2003).

**Perceived support:** perceived support Scale by Seyler (1997) comprises 12 items and the  $\alpha$ -Cronbach for supervisor support and peer support scales to be 0.86 and 0.83 respectively. In this study, the reliability for this domination was 0.88, which is higher than the 0.86 and 0.83 reported by Seyler (1997).

**Training attitudes:** Measures for this dimension are drawn from existing research instruments Strategic Assessment of Readiness for Training by Weinstein et al. (1994). This five-item subscale from this instrument is used to measure attitudes held by individuals toward strategic training. Internal consistency reliability for this dimension was 0.88 as reported by Weinstein et al. (1994). A study by Seyler (1997) showed the internal consistency reliability for the training attitudes with  $\alpha$ -Cronbach value of 0.82. In this study training attitudes is reported to have a high reliability of measurement ( $\alpha = 0.80$ ) which is above the minimum recommended value of 0.7 by DeVellis (2003).

**Affective organizational commitment:** affective organizational commitment was measured with 6-item scale Meyer and Allen

(1997). They reported affective organizational commitment with an  $\alpha$ -Cronbach value of 0.85. In this study, we obtained an  $\alpha$ -Cronbach of 0.89.

**Psychological contract:** psychological contract was measured by using 12 items scale adopted from Coyle-Shapiro and Conway (2005). Whereas they reported an internal consistency reliability with coefficient Alpha of 0.89, in this study, psychological contract is reported to have a high reliability of measurement ( $\alpha = 0.83$ ).

**Turnover intention:** turnover intention scale by Sanders and Roefs (2002) comprised 7 items and the Alpha Cronbach for five dimensions were 0.76. In this study turnover intention is reported to have a high reliability of measurement ( $\alpha = 0.85$ ).

**Knowledge sharing:** to measure knowledge sharing, Hooff et al. (2003) proposed a brief knowledge sharing questionnaire with five questions in terms of evaluating effective knowledge management. In this study, we obtained an  $\alpha$ -Cronbach of 0.84.

## RESULTS

Prior to the hypotheses testing, we checked the validity of the strategic training scale. This was done by analysing content validity, reliability, and construct validity for showing goodness of measurement. For determining the content validity, expert's opinions were sought. For this purpose, a set of questionnaire has been distributed to the academics in order to establish the grade of match each item with study objectives. Specialists in the field of strategic human resource management have improved the sentences structure in order to validate the content of the research instrument. In this study factor analysis is used as a common test to validate the construct of the measurement. It was decided to use the construct validation strategy-the process of factor analysis recommended by Pallant (2007). The process has three assumptions:

**Table 1.** Exploratory factor analysis on strategic training practices.

Item	Factor			KMO	Communalities value	Cumulative variance (%)
	1	2	3			
<b>Strategic training practices</b>				<b>0.856</b>	<b>29 items&gt;0.637</b>	<b>83.434</b>
<b>Motivation to learn</b>				<b>0.678</b>	<b>7 items&gt;0.645</b>	<b>30.234</b>
Q7		0.884			0.678	67.234
Q8		0.834			0.765	86.822
Q9		0.795			0.834	93.862
Q10		0.765			0.899	98.989
Q11		0.730			0.645	99.462
Q12		0.687			0.798	99.774
Q13		0.634			0.654	100.000
<b>Perceived support</b>				<b>0.712</b>	<b>11 items&gt;0.638</b>	<b>32.124</b>
Q14		0.923			0.887	84.346
Q15		0.885			0.831	88.447
Q16		0.897			0.819	91.549
Q17		0.767			0.638	93.852
Q18		0.746			0.690	95.809
Q19		0.712			0.765	97.573
Q20		0.710			0.698	98.882
Q21		0.696			0.736	99.414
Q22		0.645			0.765	99.720
Q23		0.634			0.694	99.930
Q24		0.629			0.653	100.000
<b>Training attitudes</b>				<b>0.843</b>	<b>5 items&gt;0.637</b>	<b>21.076</b>
Q25		0.894			0.836	91.867
Q26		0.859			0.698	97.068
Q27		0.761			0.752	98.465
Q28		0.734			0.637	99.666
Q29		0.702			0.748	100.000

determine sufficient correlations that show values greater than 0.3; demonstrate significantly in the correlation matrix  $p < 0.05$ ; determine the Kaiser-Meyer-Olkin in the descriptive statistics that show values greater than 0.06. Examination of the component matrix table showed that all items load strongly on the one underlying component. As Tables 1 and 2 show, the different items load into the corresponding factors, exactly as had been established. All studied variables report its cumulative variance greater than 60% (affective organizational commitment, 71.73%; psychological contract, 73.14%; turnover intention, 60.46%). It denotes that these dimensions are greatly suitable to describe the variables. All the above evidence support sufficient degree of reliability and validity. Thus, the instruments developed to measure strategic training practices, psychological contract, affective organizational commitment, turnover intention,

and knowledge sharing were found to be work-able and accepted to utilize for the study. Table 3 gives mean, standard deviation, minimum value and maximum value of the variables.

### Hypotheses testing

First, we tested the general hypotheses ( $H_{1a}$ ,  $H_{2b}$ , and  $H_{3c}$ ) corresponding to each strategic training. Pearson product-moment correlation analysis was used to examine the following hypotheses regarding the relationship between the three strategic training practices and affective organizational commitment. Preliminary analyses conducted revealed no violation of the assumptions of normality, linearity, and homoscedasticity. As can be seen the strategic training practices including motivation

**Table 2.** Exploratory factor analysis on affective organizational commitment, psychological contract, and turnover intention.

Item	KMO	Communalities value	Cumulative variance (%)
<b>Affective commitment</b>	<b>0.696</b>	<b>6 items&gt;0.601</b>	<b>71.733</b>
Q60		0.764	48.916
Q61		0.637	71.733
Q62		0.798	84.808
Q63		0.903	92.643
Q64		0.699	97.922
Q65		0.601	100.00
<b>Psychological contract</b>	<b>0.828</b>	<b>12 items&gt;0.658</b>	<b>73.135</b>
Q66		0.832	44.391
Q67		0.857	59.620
Q68		0.777	73.135
Q69		0.829	80.722
Q70		0.807	86.886
Q71		0.658	90.103
Q72		0.674	93.176
Q7		0.817	95.504
Q74		0.839	97.272
Q75		0.864	98.622
Q76		0.894	99.572
Q77		0.876	100.000
<b>Turnover intention</b>	<b>0.678</b>	<b>7 items&gt;0.593</b>	<b>60.462</b>
Q78		0.598	24.345
Q79		0.771	43.815
Q80		0.593	60.462
Q81		0.670	74.103
Q82		0.743	84.778
Q83		0.716	93.550
Q84		0.658	100.000

**Table 3.** Descriptive statistics of strategic training practices, psychological contract, affective organizational commitment, turnover intention, and knowledge sharing.

Variable	Mean	Standard deviation	Minimum value	Maximum value
Strategic training	2.9578	.47948	1.00	4.13
Psychological contract	3.7400	.54335	1.25	4.58
Affective organizational commitment	3.9131	.57050	2.17	4.50
Turnover intention	2.0570	.59236	1.29	4.14
Knowledge sharing	2.8796	.58090	1.00	4.27

to learn, perceived support, and training attitudes were significant and strong positive correlated with affective organizational commitment ( $r=.565, p<.01$ ), indicating that those who their universities assess high levels of training

needs are most probably to stay in the university. Second, in order to test the first hypothesis, multiple regression analysis was employed. Results of preliminary analyses confirmed that all the assumptions of multiple

**Table 4.** Correlations between strategic training practices and affective organizational commitment.

No.	Variable	1	2	3	4
1	Motivation to learn	1.00	.666**	.635**	.565**
2	Perceived support	.666**	1.00	.676**	.511**
3	Training attitudes	.635**	.676**	1.00	.568**
4	Affective organizational commitment	.565**	.511**	.568**	1.00

\*\*Correlation is significant at the 0.01 level (2- tailed).

**Table 5.** Relationship between strategic training practices and affective organizational commitment (model summary).

R	R <sup>2</sup>	Adj. R <sup>2</sup>	S.E of the estimate	F	Sig.
.630	.387	.391	.4451	65.246	.000

Predictors: (Constant), motivation to learn, perceived support and training attitudes; dependent variable, affective commitment.

**Table 6.** Pearson correlation between strategic training practices and psychological contract.

No.	Variable	1	2	3	4
1	Motivation to learn	1.00	.666**	.635**	.471**
2	Perceived support	.666**	1.00	.676**	.515**
3	Training attitudes	.635**	.676**	1.00	.481**
4	Psychological contract	.565**	.511**	.568**	1.00

\*\*Correlation is significant at the 0.01 level (2- tailed).

of multiple regression were met. Three independent variables entered into the regression model and explain 39.7% of the variance ( $R^2$ ) in affective organizational commitment, which is highly significant, as indicated by the F-value of 65.246 in Model Summary table (Tables 4 and 5). Thus, hypothesis 1 is substantiated. Third, three hypotheses (from  $H_{4a}$  to  $H_{4c}$ ) were formulated to test the relationship between each of the variables and psychological contract. The Pearson correlation matrix obtained for the three interval-scaled variables is shown in Table 6. As can be seen the strategic training practices was significant and moderate positive correlated with psychological contract ( $r=0.471$ ,  $p<0.01$ ). Forth, the results show that the multiple regression coefficient of the three independent variables that are entered into the regression model and R (0.558) was the correlation of the strategic training variables with the psychological contract and  $R^2$  as 0.312. The result suggest that 31% of the variance ( $R^2$ ) in psycho-logical contract has been significantly explained by the strategic training practices as shown by the F value of 44.835 ( $p<0.000$ ), substantiating the forth hypothesis.

Fifth, the psychological contract was found to have a high positive significant correlation with affective organizational commitment at  $p<0.01$  level ( $r=.662$ ) and a high

positive significant correlation with knowledge sharing at  $p<0.01$  level ( $r=0.702$ ). Also, result of the correlation indicated that higher affective organizational commitment is associated with higher knowledge sharing scores. The knowledge sharing was found to have a high negative significant correlation with turnover intention at  $p<0.01$  level ( $r=-0.662$ ). In order to test the second hypotheses, simple linear regression analysis was used. The result suggest that 75% of the variance ( $R^2$ ) in turnover intention has been significantly explained by the affective organizational commitment, as shown by the F value of 886.930 ( $p<.000$ ) substantiating the forth hypo-thesis. The impact of affective organizational commitment on the turnover intention is seen in Model Summary.

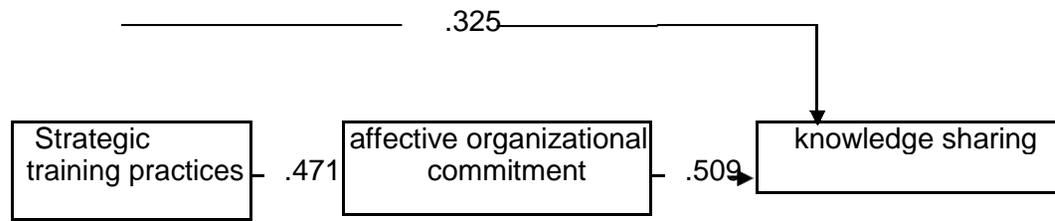
Nonetheless, the negative relationship between turnover intention and affective organizational commitment suggests that the higher the level of affective organizational commitment the lower would be the intention to leave. Additionally, no problems exist related to multicollinearity and homoscedasticity.

The total mediating effect of the three strategic practices on the psychological contract was tested by hypothesis ( $H_5$ ).

Strategic training practices is found to be significantly related to the affective organizational commitment ( $\beta$

**Table 7.** The mediation effect on the relationship of strategic training practices on knowledge sharing.

Estimator	Equation 1 (Dependent = Knowledge sharing)		Equation 2 (Dependent = Affective commitment)		Equation 3 (dependent = Knowledge sharing)	
	$\beta$	$t$	$\beta$	$t$	$\beta$	$t$
Independent: strategic training	.565**	11.844	.471**	9.230	.325**	7.159
Mediator: affective commitment					.509**	11.206



**Figure 2.** Simple mediation model for strategic training practices on knowledge sharing.

0.471,  $p < 0.05$ ,  $CI_{95} = 0.420, .647$ ). The mediator (affective organizational commitment) (Table 7) is found to significantly influence knowledge sharing ( $\beta = 0.509$ ,  $p < 0.05$ ,  $CI_{95} = 0.441, 0.629$ ). However, strategic training practices remain highly significant in the Equation 3 ( $\beta = 0.325$ ,  $t = 7.159$ ) and indicate no perfect mediation is found. The Beta value of strategic training practices in the third equation has been diminished by 0.240 (0.565 to 0.325). It implies that the inclusion of psychological contract in the Equation 3 has reduced the effect of strategic training practices to knowledge sharing. Hence, psychological contract is partially mediating the relationship of strategic training practices on affective organizational commitment. However when psychological contract is controlled, the magnitude of the correlation reduces

from 0.565 to 0.383 (Figure 2).

The model also indicates 42.5% (0.240 / 0.565) of the effect of strategic training practices on knowledge sharing is mediated through affective organizational commitment.

And 57.5% (0.325/0.565) is the direct effect of strategic training practices on knowledge sharing when affective organizational commitment is controlled. To determine the significance of indirect effect, Mackinnon et al. (1998) Distribution of Product is used. The result indicates the indirect effect value is 103.43 which are above the critical value of 2.18. In another words, there is a significant indirect effect of strategic training practices on knowledge sharing via affective organizational commitment at the alpha value of 0.05.

The simple mediation model is illustrated in

Figure 3. The indirect effect of strategic training practices on knowledge sharing is 0.243 (0.481 × 0.506) and its direct effect is .324. The total effect coefficient is .567 (0.243 + 0.324). The model also indicates 42.86% (0.243 / 0.567) of the effect of strategic training practices on knowledge sharing is mediated through psychological contract. And 57.14% (0.324/0.567) is the direct effect of strategic training practices on knowledge sharing when affective organizational commitment is controlled. The result indicates the indirect effect value is 105.001 which are above than the critical value of 2.18. In another words, there is a significant indirect effect of strategic training practices on knowledge sharing via psychological contract at the alpha value of 0.05. Hence, psychological contract is partially mediating the

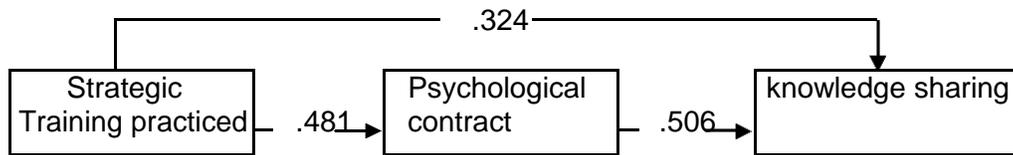


Figure 3. Simple Mediation Model for strategic training practices on knowledge sharing.

relationship of strategic training practices on knowledge sharing.

## DISCUSSION AND CONCLUSIONS

We have analysed the relationship between strategic training practices and the three dimensions that make up individual effectiveness. The findings of this study largely support the hypothesized relationships. In addition, these findings confirm the theories that strategic human resource management practices are important issues for organizations and the utilization of strategic training practices would create emotional attachment to the organization. Fulfillment of the employees' training needs, through the strategic training practices, would lead to affective organizational commitment as argued by Meyer and Allen (1997). In fact, employees' perceptions of fairness of these strategic practices are crucial for elevating affective organizational commitment and feeling of belonging to the organization. The greater valuable these practices are, the more favorable affective commitment is likely to be. The findings confirmed this reasoning. Although these results have not been previously described in other studies from the strategic approach, the findings are consistent with the findings of Paul and Anantharaman (2004) who found a significant positive relationship between human resource management practices and organizational commitment. Also, the findings are consistent with Ogilvie (1986: 340) who explained that "employees' perceptions of human resource management practices reflect a sense of reciprocity and the level of concern that the organization appears to have for employees can be a practical and applied approach to developing commitment". Strategic training practices emerged as a significant predictor of psychological contract. This finding is consistent with Martin et al.'s (1998) which proved that perceived violation of organization's obligations regarding skills and career development could reduce satisfaction with job. In addition, the purpose of this study is to show the linkages between the affective organizational commitment and psychological contract with knowledge sharing. This was achieved by illustrating the fundamental centrality of

psychological contract theory in shaping the attitudes of workers towards knowledge sharing. Thus, there is significant potential for strategic training practices and practitioners to make a valuable contribution towards the development of knowledge in this area, and to play a central role in knowledge sharing. The finding showed that affective commitment may be an important variable influencing the attitudes of employees in knowledge sharing. Therefore, research in this area will have the potential to contribute to an improved understanding of strategic training practices to knowledge sharing at work among employees. The findings also showed that how affective commitment and psychological contract affect the degree of loyalty that employees have to their organization and the success of knowledge management as the willingness of employees to share their knowledge. High turnover levels can result in the loss of significant amounts of important knowledge from organizations. Thus, affective commitment and psychological contract arguably have two potential impacts on organizational knowledge sharing. In fact, it not only affects the willingness of employees to share their knowledge, but it also affects the extent to which employees remain loyal to their organizations. Also, the study confirmed that the higher the quality of exchange relationships, the more favorable outcomes. This is in line with the explanations of Addae et al. (2006) that social exchange between employees and organizations will lead to positive attitudes in terms of affective commitment, which in turn, will support the organization to achieve its goals. However, the result of the current study does not support the study conducted by them because they found insignificant results between psychological contract and affective commitment. Thus, in general, strategic training practices help employees cope and affect their commitment and turnover intention.

## PRACTICAL IMPLICATIONS

From a practical viewpoint, the results of this study have implications for selection measures that human resource specialists may design for employees. For example, a job applicant who does not receive effective training may

have difficulty coping in and adjusting to the organization. The lack of assessment in training needs could induce low commitment and may trigger turnover intentions. Thus, based on the results obtained in this study, it is suggested that training needs assessment in individual level could be used to foster commitment to the organization. It is therefore recommended that organizations, especially universities of medical sciences should take steps to assess their employees' needs and make sincere efforts to enhance affective organizational commitment. Among the steps to be considered include ensuring that employees develop and maintain higher levels of motivation to learn and ensuring a sound support from the peers and supervisors. Although we only obtained partial support for some of the mediation hypotheses, the results suggest that employees' knowledge due to practices received from the training strategies can be enhanced by their commitment to the organization. Additionally, employees' psychological contract can mediate the relationship between strategic training practices and knowledge sharing. Finally, perceived fulfillment in psychological contract will directly influence employees' affective commitment. The findings suggest that any university, which wants to develop a positive emotional bond to the organization, has to fulfill its promises in the way that it has a form of reciprocity. Favorable and fair exchanges will occur when organizations can meet the expectations inherent to the psychological contract. Some of the actions that may be appropriate to improve psychological contract for the purpose of enhancing affective organizational commitment are: (1) to allow social interactions through open door policies, feedback, and support in personal career development; (2) to ensure a sound welfare administration that satisfies real welfare needs of the employees. Thus, it is expected that in situations where there are emotional attachment of the employees to the organizations, organizations will be well advised to assess training needs of employees in order to mitigate withdrawal cognitions and minimize intentions to quit.

## **FUTURE RESEARCH AND LIMITATIONS**

This paper has suggested that certain training practices influence the knowledge sharing. Future research should be directed towards analysing the effect of those practices on affective organizational commitment, using psychological contract as a mediating variable. This would provide a link between the research that analyses the effect of training practices on psychological contract and the one relating to psychological contract and affective organizational commitment.

In order to complete the analysis of the relationship between strategic training practices and affective

organizational commitment, it may be necessary to assess specific training practices aimed at particular groups of employees within the organisation (e.g. management, sales personnel). This would require a more specific questionnaire to the industry under analysis. Another future line of research would be the analysis of the effect of other strategic human resources management practices (staffing, performance appraisal, and compensation) on knowledge sharing. This would allow a more in-depth study in the field of strategic human resource management. This paper has analysed training practices in an isolated way, that is, without taking into account the mutual relationship between training and other practices of human resource management. In future works this question could be treated by analysing the relationship between human resources management and knowledge sharing using an integrated approach. This would enable the synergistic effect deriving from the joint use of human resources strategies that complement each other to be taken into account. An integrated analysis would contribute towards establishing which human resources system is most appropriate for developing an organization. The statistical results suggest that knowledge organization requires a different management approach than the non-knowledge organization. Thus, the role of human resource management is also unique. In terms of employee effectiveness, the focus should be placed on training needs assessment. It must be the base of evaluation of employee's knowledge sharing, as an input for directing knowledge management efforts.

## **REFERENCES**

- Addae HM, Parboteeah KP, Davis EE (2006). Organizational commitment and intentions to quit: An examination of the moderating effects of psychological contract breach in Trinidad and Tobago. *Int. J. Organ. Anal.*, 14, 3:225-238.
- Ammeter AP, Dukerich JM (2002). Leadership, team building, and team member characteristics in high performance project teams. *Eng. Manage. J.*, 14(4): 3-10.
- Angle HL, Perry JL (1981). "An empirical assessment of organizational commitment and organizational effectiveness". *Adm. Sci. Q.*, 26: 1-14.
- Armstrong M (2000). *Strategic human resource management: a guide to action*. London: Kogan Page.
- Bartlett KR (1999). *The relationship between training and organizational commitment in the health care field*. PhD dissertation, University of Illinois, Urbana, Champaign.
- Becker TS, Billings RS, Eveleth DM, Gilbert, NL (1996). 'Foci and Bases of employee commitment: implications for job performance'. *Acad. Manage. J.*, 39: 464-82.
- Beijerse RP (1999). Questions in knowledge management: defining and conceptualizing a phenomenon. 3( 2): 94-109.
- Blau PM (1964). *Exchange and power in social life*. New York, N. Y.: Wiley.
- Carlson DS, Bozeman DP, Kacmar MK (2000). Training motivation in organizations: An analysis of individual-level antecedents. *J. Manager.*, 12 (3): 271-288.

- Caykoylu S, Egri CP, Havlovic S (2007). Organizational commitment across different employee groups. *Bus. Rev.*, 8(1): 191-197.
- Chew J, Chan CCA (2008). Human resource practices, organizational commitment and intention to stay. *Int. J. Manpower*, 29 (6):503-522.
- Cook KS, Rice E (2003). Social exchange theory. In: Delamater, J(Ed.), *Hand book of social psychology.*( pp. 53-76). New York: Kluwer Academic/Plenum Publishers.
- Coyle-Shapiro J, Conway N (2005). Exchange relationships: examining psychological contracts and perceived organizational support. *J. Appl. Psychol.*, 90:774-781.
- Coyle-Shapiro J, Morrow PC, Richardson R, Dunn SR (2002). Using profitsharing to enhance employee attitudes: a longitudinal examination of the effects on trust and commitment. *Hum. Res. Manage.*, 41(4): 423-438.
- Daley DM (2002). *strategic human resource management: people and performance management in the public sector.* United States of America: Pearson education.
- Devellis RF (2003). *Scale development.* Applied social research methods series: Sage Pubns.
- Dubin SS (1990). Maintaining competence through updating. in s. l. willis and s. s. dubin (ed). *maintaining professional competence* (pp. 9-43). San Francisco: Jossey-Bass.
- Eisenberger R, Stinglhamber F, Vandenberghe C, Sucharski IL, Rhoades L (2002). Perceived supervisor support: contributions to perceived organizational support and employee retention. *J. Appl. Psychol.*, 87(3): 565-573.
- Elias SM (2009). Employee commitment in times of change: assessing the importance of attitudes toward organizational change. *J. Manage.*, 35 (1): 37-55.
- Facteau JD, Dobbins GH, Russell JEA, Ladd RT, Kudisch JD (1995). The influence of general perceptions of the training environment on pretraining motivation and perceived training transfer. *J. Manage.*, 21(1): 1-25.
- Farr JL, Middlebrooks CL (1990). Enhancing motivation to participate in professional development. In: SL Willis and SS Dubin (Eds.). *Maintaining professional competence* (pp. 195-213). San Francisco: Jossey-Bass.
- Fiorito, J, Bozeman, DP, Young A, Meurs JA (2007). Organizational commitment, human resource practices, and organizational characteristics. *J. Manage. Iss.*, 19(2):186-207.
- Garavan TN, Gunnigle P, Morley M (2000). Contemporary HRD research: a triarchy of theoretical perspectives and their prescriptions for HRD. *J. Eur. Ind. Train.* 24: 65-93.
- Gomez-Mejia LR, Balkin DB, Cardy RL (1995). *Managing human resources.* Englewood Cliffs, N. J.: Prentice-Hall.
- Griffeth RW, Hom PW, Gaertner S (2000). "A meta-analysis of antecedents and correlates of employee turnover: update, moderator tests, and research implications for the next millennium" *J. Manage.*, 26: 463-88.
- Guest DE (1998). Is the psychological contract worth taking seriously? *journal of organizational behavior.* 19: 649-664.
- Guzzo RA, Noonan KA (1994). Human resource practices as communications and the psychological contract. *Hum. Res. Manage.*, 33(3): 447-462.
- Hammer LB, Kossek EE, Yragui NL, Bodner TE, Hansson GC (2009). Development and validation of a multidimensional measure of family supportive supervisor behaviors (FSSB). *J. Manage.*, 35(4): 837-856.
- Hicks WD (1984). *The process of entering training programmes and its effects on training outcomes.* dissertation abstracts. 44, 35648 (University Microfilms No. DA8403528).
- Hooff BVD, Vijvers J Ridder JD (2003). Foundations and applications of a knowledge management scan. *Eur. Manage. J.*, 21(20):237-246.
- Hsu HY. (2009). *Organizational learning culture's influence on job satisfaction, organizational commitment, and turnover intention among R&D professionals in Taiwan during an economic downturn.* Ph.D. Thesis. University of Minnesota.
- Huczynski AA, Lewis JW (1980). 'An empirical study into the learning transfer process in management training'. *J. Manage. Stud.*, 17: 227-40.
- Iverson RD, Buttigieg DM (1999). Affective, normative and continuance commitment: can the 'right kind' of commitment be managed? *J. Manage. Stud.*, 36(3): 307-333.
- Kanter RM (1977). *Men and women of the corporation.* New York: Basic books.
- King J (2000). White collar reactions to job insecurity and the role of the psychological contract: implications for human resource management. *Hum. Res. Manage.*, 39(1):79-92.
- Krejcie RV, Morgan DW (1970). Determining sample size for research activities. *Edu. Psychol. Meas.*, 30: 607-610.
- Lang DL (1992). Organizational culture and commitment. *Hum. Res. Dev. Q.*, 3(2): 191-196.
- Lee SM (1971). An empirical analysis of organizational identification. *The acad. Manage. J.*, 14(2):213-226.
- Lester SW, Turnley WH, Bloodgood JM, Bolino MC (2002). Not Seeing Eye to Eye: Differences in supervisor and subordinate perceptions of and attributions for psychological contract breach. *J. Organ. Behav.*, 23: 39-56.
- Lundy O, Cowling A (1996). *Strategic human resource management.* London and New York: Routledge.
- MacDuffie JP (1995). Human resource bundles and manufacturing performance: organizational logic and flexible production systems in the world auto industry journal article. *Industrial and labor relations review.* 48: 197-221.
- MacKinnon DP, Lockwood C, Hoffman J (1998). A new method to test for mediation. Presented at the society for prevention research Annual Meeting in Park City, Utah on June 5, 1998.
- Martin G, Staines H, Pate J (1998). Linking job security and career development in a new psychological contract. *Hum. R. Manage. J.*, 8(3):20-40.
- Mathieu JE, Zajac DM (1990). A review and meta-analysis of the antecedents, correlates, and consequences of organizational commitment. *Psychological bulletin.* 108(2):171-194.
- Mello JA (2002). *Strategic human resource management.* United States: South-Western.
- Meyer JP, Allen NJ, Gellatly IR (1990). Affective and continuance commitment to the organization: evaluation of measures and analysis of concurrent and time-lagged relations. *J. Appl. Psychol.*, 75(6):710-720.
- Meyer JP, Allen NJ (1991). A three component conceptualization of organizational commitment. *Hum. R. Manage. Rev.*, 1(1): 61-89.
- Meyer JP, Allen NJ (1997). *Commitment in the workplace: theory, research, and application.* London, Thousand Oaks, New Delhi: Sage Publications.
- Meyer JP, Stanley DJ, Herscovitch L, Topolnytsky L (2002). Affective, continuance, and normative commitment to the organization: a meta-analysis of antecedents, correlates, and consequences. *J. Vocational behav.*, 61: 20-52.
- Noe RA, Schmitt N (1986). The influence of trainee attitudes on training effectiveness. test of a model. *Pers. Psycho.*, 39:497-523.
- Noe RA, Wilk SL (1993). Investigation of the factors that influence employees participation in development activities. *J. Appl. Psychol.*, 78(2): 291-302.
- Ogilvie J (1986). The role of human resource management practices in predicting organizational commitment. *Group Organ. Stud.*, 11:335-359.
- O'Dell C, Grayson CJ (1998). "If only we knew what we know: identification and transfer of internal best practices. *California Manage. Rev.*, 40(3): 154-174.
- Pare G, Tremblay M (2007). The influence of high-involvement human resource practices, procedural justice, organizational commitment, and citizenship behaviors on information technology professionals' turnover intention. *HEC Montréal Group and Organ. Manage.*, 32(3): 326-357.
- Pallant J (2005). *A step by step guide to data analysis using SPSS for Windows (Version 15).* Australia: McPherson's Printing Group.
- Paul AK, Anantharaman RN (2004). Influence of HRM practices on

- organizational commitment : a study among software professionals in India. *Hum. Res. Dev. Q.*, 5(1):77-88.
- Porter LW, Lawler EE, Hackman JR (1975). *Behavior in organizations*. New York: McGraw- Hill Book Company.
- Ritzer G, Trice HM (1969). An empirical study of Howard Becker's Side-Bet Theory. *Soc. Forces*. 47:475-479.
- Roca-Puig V, Beltra'n-Marti'n I, Scrig-Tena, AB, Bou-Llusar JC (2007). Organizational commitment to employees and organizational performance a simultaneous test of configurative and universalistic propositions. *Pers. Rev.*, 36(6): 867-886.
- Robinson SL (1996). Trust and breach of the psychological contract. *Adm. Sci. Q.*, 41:574-599.
- Rousseau DM (1995). Psychological contracts in organizations: understanding written and unwritten agreements. Thousand Oaks, CA: Sage
- Rousseau DM (1989). Psychological and implied contracts in organizations. *Employee Responsibilities Rights J.*, 2(2): 121-139.
- Rousseau DM, Wade-Benzoni KA (1994). Linking strategy and human resource practices: how employee and customer contracts are created. *Hum. Res. Manage.*, 33(3):463-489.
- Rousseau DM, Greller MM (1994). Human resource practices: Administrative contract makers. *Hum. Res. Manage.*, 33(3): 385-401.
- Saks AM (1995). Longitudinal field investigation of the moderating and mediating effects of self-efficacy on the relationship between training and newcomer adjustment. *J. Appl. Psychol.*, 80(2), 211-225.
- Salaman G, Story J, Billsberry J (2005) .*Strategic human resource management*. London, Thousand Oaks, New Dehli.: Sage Publications.
- Salkind NJ (2000). *Statistics for people who (think they) hate statistics*. Prentice Hall: Sage Publications, Inc
- Sanders K, Roefs A (2002). *Maatschappelijk verantwoord ondernemen en de binding van medewerkers* . *Gedrag en Organisatie*, 15: 94-105
- Scarbrough H, Carter C (2000). *Investigating knowledge management*, CIPD, London.
- Schein EH (1965). *Organizational psychology*. Englewood Cliff, NJ: Prentice Hall.
- Seyler DL, Holton EF III, Bates MA, Carvalho MA (1997). Factors affecting, motivation to transfer training. *Int. J. Train. Dev.*, 2(1):2-16.
- Soliman F, Spooner K (2000). Strategies for implementing knowledge management: role of human resource management. *J. Knowledge Manage.*, 4(4): 337-345.
- Stup RE. (2006). *Human resource management, organizational commitment, and perceived organizational support in dairy farm businesses*. Ph.D. Thesis. The Pennsylvania State University.
- Suliman AM, Iles PA (2000). "The multi-dimensional nature of organizational commitment in a non-Western context". *J. Manage. Dev.*, 19: 71-82.
- Tannenbaum SI, Mathieu JE, Salas E, Cannon-Bowers JA (1991). Meeting trainees' expectations: the influence of Training Fulfilment on the development of commitment, self efficacy, and motivation. *J. Appl. Psychol.*, 76: 59-769.
- Thompson CA, Prottas D (2005). Relationships among organizational family support, job autonomy, perceived control, and employee well-being. *J. Occup. Health Psychol.*, 11(1): 100-118.
- Thompson CA, Beauvais LL, Lyness KS (1999). When work-family benefits are not enough: The influence of work-family culture on benefit utilization, organizational attachment, and work-family conflict. *J. Vocat. Behav.*, 54:392-415.
- Walton RE (1985). From control to commitment in the workplace. *Harv. Bus. Rev.*, 63(2): 76-84.
- Weinstein CE, Palmer DR, Hanson GR, Dierking DR, McCann E, Soper M, Nath I (1994). Design and development of an assessment of readiness for training: the start. annual conference of the academy of Human resource development. March, San Antonio, TX.
- Zhao H, Wanyne SJ, Glibkowski BC, Bravo J (2007). The impact of psychological contract breach on work-related outcomes: a meta-analysis. *Pers. Psychol.*, 60: 647-680.