

# Workplace Learning, Job Satisfaction, and Organizational Commitment in Small to Midsize Companies in Taiwan

Ti-Lin Chiang  
Institute for Information Industry

Jia Wang  
Texas A&M University

*This quantitative study explored the relationships among workplace learning, job satisfaction, and organizational commitment (OC) in the context of small to midsize information technology companies in Taiwan. Twenty-six companies participated in the study, and a total of 206 valid surveys were collected and analyzed out of 450 that were distributed. A significant correlation was found between workplace learning and job satisfaction, job satisfaction and OC, and workplace learning and OC.*

Keywords: Workplace Learning, Job Satisfaction, Organizational Commitment

The increasing speed and scale of change in organizations such as corporate restructuring, downsizing, domestic and foreign acquisitions, and globalization have resulted in the change of traditional employment contract and consequently reduced employee commitment. In the midst of changes, modern organizations are constantly seeking ways to generate greater employee commitment to remain competitive in today's world economy.

As more and more management theorists and practitioners recognize the importance of organizational commitment as a determinant of employee performance and organizational success (Bateman & Strasser, 1984; Brooks, 2002), the concept of organizational commitment (OC) has received vast attention during the past two decades from researchers in industrial or organizational psychology, and organizational behavior (Mathieu & Zajac, 1990). Much effort has been made to understand the antecedents and consequences of organizational commitment (Buchanan, 1974). As an antecedent, organizational commitment has been used to predict employees' absenteeism, performance, turnover, and other behaviors (Mathieu & Zajac, 1990; Samad, 2005, 2006). Regarding the consequences, organizational commitment has been linked to a variety of factors ranging from job characteristics, job involvement to organizational structure. In addition, several other variables including workplace learning (Bartlett, 2001; Rowden, 2002; Rowden & Ahmad, 2000) and job satisfaction (Balfour & Wechsler, 1991; Mathieu & Zajac, 1990; Vandenberg & Lance, 1992) are found to be correlated with organizational commitment. This study focuses on OC and the two variables related to it—workplace learning and job satisfactions. Furthermore, researchers also suggested that demographic variables influenced issues like job satisfaction, therefore, no overall generalization should be made across the population (Hulin & Smith, 1964). To that end, we also included the examination of demographic variables as the second objective of this study.

## Problem and Significance

A thorough literature review pointed to three prominent issues related to the topic under study. First, organizational commitment has been studied extensively over the last two decades. However, most of the past studies in this area were conducted primarily in Western countries; few were done elsewhere, especially in the Asian context (Francesco & Chen, 2004). In fact, researchers already noted the cross-cultural variations in the studies on organizational commitment (Wheaton, 1999). Therefore, a systematic study of meaning and outcomes of organizational commitment and variables influencing OC across cultures is necessary and important to provide a holistic understanding of the phenomenon (Meyer & Allen, 1997).

Secondly, the constant organizational and environmental changes have resulted in a shift from lifelong employment in exchange for loyalty and commitment toward more emphasis on lifelong employability and a more contingent relationship (Brislin, MacNab, Worthley, Kabigting, & Zukis, 2005; Morrison & Robinson, 1997). This raises a question: What can organizations do to regain employee commitment? Finegold (1998) noted that one possible basis for an alternative bargain between the employer and employee is a mutual commitment to ongoing competency development, or a "learning contract." The organization, although not able to offer employment security, pledges to increase the employability of its employees by investing in their continuous skill development and providing them with opportunities and rewards for using these skills. However, the exploration of the relationship

*Copyright © 2008 Ti-Lin Chiang & Jia Wang*

between workplace learning and organizational commitment is still in the early stages since most extant studies focused narrowly on training or formal learning in a highly structured program. There was a need to examine the relationship between workplace learning and organizational commitment from a broader perspective

Thirdly, studies on workplace learning in small businesses often reported a lack of human resource development (HRD) activities due to of the constraints of financial resources or time (Des Reis, 1993; Hill & Stewart, 2000). Nevertheless, researchers, for example, Rowden (1995), revealed that some forms of workplace learning did take place in small to midsize organizations, and noted that previous studies that failed to capture workplace learning was mainly because of the different terminology used in questionnaire for data collection. To address this issue, Rowden (1995) developed a Small Business Workplace Learning Survey (SBWLS) to capture the nature and extent of workplace learning in small to midsize businesses. Informed by Rowden's thinking, this study is an attempt at examining if learning occurs in small to midsize businesses.

## **Purpose**

The main purpose of this study was to explore the relationships among workplace learning, job satisfaction, and organizational commitment in the context of small to midsize information technology (IT) companies in Taiwan. Three hypotheses were developed to guide this effort.

H<sub>1</sub>: There is a relationship between workplace learning and job satisfaction in small to midsize businesses in Taiwan.

H<sub>2</sub>: There is a relationship between job satisfaction and organizational commitment in small to midsize businesses in Taiwan.

H<sub>3</sub>: There is a relationship between workplace learning and organizational commitment in small to midsize businesses in Taiwan.

The second objective was to determine the extent to which the demographic variables (age, education, gender, tenure, and marital status) were related to workplace learning, job satisfaction, and organizational commitment in such context.

## **Literature Review**

This study draws on three bodies of literature: workplace learning, job satisfaction, and organizational commitment. This section provides a brief discussion on each one of them.

### *Workplace Learning*

The concept of workplace learning has been defined differently by a number of researchers. Matthews (1999) suggested a definition that includes physical location, shared meanings, ideas, behaviors and the attitudes that determine the working environment and their relationships. Marsick (1987) proposed a broader perspective that workplace learning is the way in which individuals or groups acquire, interpret, reorganize, change or assimilate a related cluster of information, skills and feelings. Rowden (1995) noted that workplace learning takes many forms including formal, informal, and incidental learning. While there is no universally agreed definition of workplace learning, it was generally accepted that learning itself takes place regardless of the focus of the learning.

Workplace learning has been found to not only develop employees and improve their skills and abilities but also enhance their satisfaction with the job and their commitment to the organization (Bartlett, 2001; Rowden, 2002; Rowden & Ahmad, 2000). Workplace learning does not occur for its own sake but rather as a means of achieving organizational and individual goals. Therefore, organizations need to invest and support different types of learning and offer learning opportunities to all levels of employees both within and outside the workplace in order to achieve organizational goals.

### *Job Satisfaction*

Past research has consistently reported a positive relationship between job satisfaction and organizational commitment (Balfour & Wechsler, 1991; Kacmar, Carlson & Brymer, 1999; Lincoln & Kalleberg, 1990; McFarlin & Sweeney, 1992; Mowday, Steers, & Porter 1979; Mueller & Price, 1990; Vandenberg & Lance, 1992). Herzberg's (1968) motivation/job satisfaction theory pointed to a potential link between possibility of growth, one of the motivators from job satisfaction, and organizational commitment. Possibility of growth includes the chance that a person can be promoted, and more importantly, the opportunities to learn new skills or advance construction techniques. In this study, possibility of growth was referred to as workplace learning.

### *Organizational Commitment*

Organizational commitment has been understood in a number of ways. Some view it as a measure of an individual's dedication and loyalty to an organization (Bateman & Strasser, 1984; Meyer & Allen, 1997). Mowday et

al. (1979) characterized organizational commitment with at least three related factors: (a) a strong belief in acceptance of the organization's goals and values; (b) a willingness to exert considerable effort on behalf of the organization; and (c) a strong desire to maintain membership in the organization. In this definition, commitment involves an active relationship with the organization, and it represents something beyond mere passive loyalty to an organization. In this study, organizational commitment is defined as "the relative strength of an individual's identification with and involvement in a particular organization" (Mowday et al., 1979, p. 226).

Researchers have identified a range of variables that affect organizational commitment, including personal characteristics (age and level of education), job characteristics (autonomy, feedback, teamwork, work environment, and work pressure), and organizational characteristics (size, leadership style, career prospects, human resource policies, possibilities for future education and participation in decision making, Mowday et al., 1982).

#### *Demographic Variables*

The literature also suggests that demographic differences among employees have significant impact on constructs such as job satisfaction and commitment. For example, researchers found positive relationship between age and job satisfaction (Brush, Moch & Pooyan, 1987; Kuo & Chen, 2004; Lee & Wilbur, 1985; Mowday et al., 1982; Reiner & Zhao, 1999), between tenure and job satisfaction (Brush et al., 1987), between marital status and job satisfaction (Kuo & Chen, 2004), and impact of gender on job satisfaction (Hulin & Smith, 1964). Similarly, research identified personal characteristics such as age, level of education, marital status, tenure, and gender affected job commitment positively or negatively (Mathieu & Zajac, 1990; Mowday et al., 1979). For that reason, most researchers often include demographic variables in job commitment/satisfaction studies as descriptive statistics more than as explanatory variables.

#### **Method**

This study adopted a non-experimental cross-sectional survey design where a survey was administered at one point in time to a given sample. The target population was employees working in small to midsize IT companies in Taiwan. Using the definition of Small and Medium-sized Enterprises (SMEs) from the Taiwan government, the criteria of small to midsize businesses for this study were companies that had sales revenue of NT\$100 million (equivalent to USD\$3 million) or less in year 2005, and less than 50 full-time employees. Small to midsize IT companies in Taiwan were located through personal contacts and convenience samples.

This anonymous study used three instruments to collect quantitative data. One was Rowden's (2002) Small Business Workplace Learning Survey (SBWLS). This six-point Likert scale measures three aspects of workplace learning: (1) the formal learning scale (6 items,  $\alpha = .81$ ), measuring respondents' perception of planned, organized training activities, (2) the informal learning scale (8 items,  $\alpha = .73$ ), measuring respondents' perceptions of unstructured activities or spontaneous demonstrations that lead to perceived learning on the job, and (3) the incidental learning scale (7 items,  $\alpha = .78$ ), measuring respondents' perception of normal workplace activities. The second instrument was the Minnesota Satisfaction Questionnaire (MSQ) developed by Weiss, Dawis, England, and Lofquist (1967). This five-point Likert scale measures employees' level of job satisfaction. The internal reliability coefficients for intrinsic satisfaction, extrinsic and general satisfaction are reported as .80, .80 and .90 (as cited in Price, 1997). A third instrument was Organizational Commitment Questionnaire (OCQ) developed by Mowday et al. (1979). Using a 7-point Likert-type scale, OCQ asked respondents to indicate their agreement or disagreement. For convenience, these three instruments were combined by the researcher into three sections in one questionnaire, with an additional section of five ordinal and nominal scale items designed by the researcher to obtain participants' demographic information. The questionnaire was distributed by the researcher's contact person in Taiwan to employees of the participating companies. Once completed, the questionnaire was placed immediately in a sealed envelope with a code representing the company, and mailed to the researcher in the USA.

The Pearson product-moment correlation was conducted to determine the correlation among three constructs under study. Additional correlation analysis was conducted to examine the second objective of the study, the extent to which the demographic variables were related to workplace learning, job satisfaction, and organizational commitment. The multiple regression analysis was performed to explore the demographic variables combined effects on each of the three dependent variables mentioned above. The purpose of regression analysis was to confirm the findings of correlation analysis and hope to find out the best predictor among the five independent variables.

Since this study was conducted in Taiwan, the three instruments were translated from English to Mandarin Chinese. To minimize the loss of meaning during translation, two different types of translation approaches for cross-cultural instruments were adopted: one-shot translation and forward-back translation. The one-shot translation refers to direct literal translation from original language to a target language without any evaluation of the translation (as cited in Chen, Holton, & Bates, 2005). The last section of the survey, demographic information was collected using

one-shot translation method since the questions were direct and simple, such as “what is your gender.” Other instruments were translated from English into Mandarin Chinese using forward-back translation unless they were already available in Mandarin Chinese, with reliability and validity that had been well established.

## Findings and Discussion

The findings indicated that the majority of respondents (94.2 %) were within the 20-29 and 30-39 age category. Among them, 65.5% were male, and 34.5% were female. Single respondents accounted for 70.4% of the surveyed population. As for the education level of the respondents, there was a normally distributed pattern indicating the majority of the respondents were from those holding Associate’s (21.8%), Bachelor’s (46.1%) and Master’s (26.7%) degrees. Regarding job tenure, the findings showed a normally distributed scoring where 40.8% scored 1 to 2 years of experience working for the existing company, followed by 31.6% for the 3 to 5 years and 21.8% for less than 1 year of experience categories.

Examination of the responses to workplace learning revealed sufficient evidence to show that learning was pervasive in these small to midsize companies. The mean on the responses to the 21 workplace learning measures was 4.34 (SD = 0.74) on a 6-point scale where 4 measured “agree slightly” and 5 measured “agree moderately.” From the value of standard deviation, it showed that the survey response was relatively concentrated around the mean value, meaning that the respondents’ perceptions are quite consistent.

The responses to job satisfaction ranged from a 1 to 5 scale. The mean value was 3.54 (SD = 0.63) of total 20 items where 3 measured “satisfied” and 4 measured “very satisfied.” This reflected that employees in small to midsize IT companies in Taiwan had a relatively high degree of satisfaction. The value of standard deviation 0.63 showed that the survey response centered around the mean value, in other words, the respondents’ perceptions were very consistent. The mean score on the responses to the 15 organizational commitment 1-7 point scale measures was 4.65, falling into the survey scale category choice, where a 4 value represented “neither disagree nor agree” to a 5 value represented as “slightly agree.” This finding supported that employees in small to midsize IT companies in Taiwan showed a limited amount of commitment, but not strongly. The results in Table 1 indicated the correlation between workplace learning and job satisfaction, job satisfaction and organizational commitment, and workplace learning and organizational commitment were significant at the  $p < 0.01$  level, carrying a high pronounced relationship of .502, .49, and .571 (see Table 1).

Table 1. *Relationship among Workplace Learning, Job Satisfaction and Organizational Commitment (N = 206)*

	Workplace learning	Job satisfaction	Organizational commitment
Workplace learning	---	---	---
Job satisfaction	.502**	---	---
Organizational commitment	.571**	.49**	---

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

Findings of this study were consistent with prior research where a positive relationship between workplace learning and job satisfaction was found (Rowden, 1995, 2002; Rowden & Ahmad, 2000; Rowden & Conine, 2005). This study also supported the work of Watkins and Marsick (1992) that workplace learning should be broader than merely a process of training and development for specific tasks. As Rowden’s SBWLS was broadly defined, learning can also be informal and incidental. Findings of the study extended the broader perspective of workplace learning concept into small to midsize businesses. The findings were also consistent with research by Balfour and Wechsler (1991), McFarlin and Sweeney (1992), and Mowday et al. (1979), where they found that job satisfaction was closely related to organizational commitment.

Furthermore, the findings were consistent with prior research by Bartlett (2001) and McMurray and Dorai (2001). Their studies revealed that training or formal training influenced organizational commitment and indicated that training could be viewed as a practice that can be managed to obtain commitment from employees. However, it was too confining to study only formal training since the focus of learning had shifted to a broader definition of learning. Workplace learning was adopted in our study as a notion broader than merely a process of training and development for specific tasks; it also included informal and incidental learning.

Table 2 showed the correlation between the demographic variables and workplace learning, job satisfaction, and organizational commitment. Evidently, the results indicated that the relationship between gender and workplace learning was positive and moderately significant, even though  $r$  value was considered low ( $r = .16, p < .05$ ). The age, marital status, education, and tenure were all found to have non-significant relationship with workplace learning. The finding further suggested that workplace learning took place and was associated more with female respondents

than male respondents in this study. This may be partially explained by the fact that in Taiwan, labor market gender inequality is the result of the traditional, conservative gender roles of Chinese culture and employers (Tsay, 1994). For example, managers' jobs generally go to males, and males find promotion to higher-ranking positions easier to achieve than female employees. As the result, female respondents are more likely to absorb knowledge from work. They expect learning from workplace to make their lives better (Lien, 2005).

The results in Table 2 also indicated that the relationship between education and job satisfaction was positive and moderately significant, although the extent as represented by the  $r$  value was relative low ( $r = .20, p < .01$ ). The age, gender, marital status, and tenure were all found to have non-significant relationship with job satisfaction. The finding also indicated that the higher the education level, the higher job satisfaction. Individuals with higher level of education likely experience more growth opportunities than those individuals with lower level of education (Howard & Frink, 1996).

Table 2. *Relationship between Demographic Variables, Workplace Learning, Job Satisfaction and Organizational Commitment (N = 206)*

	Age	Gender	Marital status	Education	Tenure
Workplace learning	-.02	.16*	-.01	.11	-.07
Job satisfaction	-.05	.02	.04	.20**	-.12
Organizational commitment	.19**	.09	-.16*	.08	.04

\*\* Correlation is significant at the 0.01 level (2-tailed). \* Correlation is significant at the 0.05 level (2-tailed).

Additionally, the results in Table 2 revealed that the relationship between age and organizational commitment was positive and moderately significant, although the extent as represented by the  $r$  value is relative low ( $r = .19, p < .01$ ). The findings implied that as workers age, they tended to develop stronger commitment to their organizations since alternative employment options generally decreased, making their current jobs more attractive (Kacmar, et al., 1999). Furthermore, older employees may have more commitment to their organizations because they have longer history with the organizations than younger employees do. On the other hand, younger employees may be willing to take more risk and looking for better opportunities in their career development. Therefore, their organizational commitment is likely lower as compared to that of the older ones.

Regarding the relationship between marital status and organizational commitment, a negative and moderately significant correlation was found, although the  $r$  value was low ( $r = -.16, p < .05$ ). A negative relationship between marital status and organizational commitment suggested that married employees tend to have a lower commitment to their organization compared to single ones. For married employees, they would have to juggle between the responsibilities of work and family. As a result, married employees may be less committed to their organization. Furthermore, married employees have greater financial burdens compared to single ones, which may increase their desire to leave the organization for a higher pay job, thus lower their commitment to the current organization.

In addition to the correlation analysis, a multiple regression analysis was conducted to confirm the findings of correlation analysis and hope to find out the best predictor among the five independent variables (see Table 3).

Table 3. *Regression Analysis between Demographic Variables and Workplace Learning, Job Satisfaction and Organizational Commitment (N = 206)*

	Workplace learning	Job satisfaction	Organizational commitment ( $\beta$ )
Constant	3.99**	3.28**	4.19**
Age	-0.07	-0.05	0.13*
Gender	0.16**	0	0.03
Marital status	-0.03	-0.02	-0.11
Education	0.10	0.20**	0.07
Tenure	-0.06	-0.11	-0.01
F value	1.81	2.27**	2.11*

\*\* Correlation is significant at the 0.01 level (2-tailed). \* Correlation is significant at the 0.05 level (2-tailed).

In the multiple regressions, three equations were derived to examine the combined effects of demographic variable on each of the three dependent variables. The results of regressions appeared to be consistent with the results from correlation analysis, except for the relationship between marital status and organizational commitment. When conducting regression analysis, no relationship was found to exist between marital status and organizational commitment. This result indicated that age was better predictor than marital status on organizational commitment.

## Conclusion

The Pearson product-moment correlation was conducted to determine the correlation among workplace learning, job satisfaction and organizational commitment. Results of the study disclosed a positive relationship between workplace learning and organizational commitment, which was consistent with previous research conducted by Western researchers such as McMurray and Dorai's (2001). However, in McMurray and Dorai's (2001) study, the main focus was training, a more narrow point of view on learning. Many previous studies not only failed to capture the form of workplace learning, but also saw small to midsize businesses lack of financial resources or time. Findings of this study revealed a different reality, that is, formal, informal, and incidental learning were found to be extensive in the small to midsize businesses under study.

The correlation analysis and multiple regression analysis were also conducted to examine the relationships between demographic variables and workplace learning, job satisfaction, and organizational commitment. The results indicated that there was a positive and slightly significant relationship between gender and workplace learning ( $r = .163, p < .05$ ). The age, marital status, education, and tenure were all found to have non-significant relationship with workplace learning. Prior studies on workplace learning did not report the findings associated with demographic variables because they were not germane to the study, or they only reported some minor correlations noted but did not provided any details (Rowden, 1995, 2002; Rowden & Ahmad, 2000; Rowden & Conine, 2005).

The findings of this study also showed a positive and slightly significant relationship existing between education and job satisfaction ( $r = .195, p < .01$ ). The age, gender, marital status, and tenure were all found to have non-significant relationship with job satisfaction. Empirical evidence and literature generally support the view that demographic differences among employees are associated with job satisfaction and most studies noted a positive correlation between age and job satisfaction (Lee & Wilbur, 1985; Reiner & Zhao, 1999). However, this study generated different findings. A possible explanation is that 94.2% of the respondents were relatively young, i.e., in their 20's and 30's, therefore, it showed no statistically significant relationship.

The results further indicated a positive and slightly significant relationship between age and organizational commitment ( $r = .189, p < .01$ ). As employees age, their alternative employment options decrease which likely make their current job more attractive (Kacmar et al., 1999). A negative and slightly significant relationship was found between marital status and organizational commitment ( $r = -.164, p < .05$ ). This finding was consistent with prior research conducted by researchers such as Kacmar et al. (1999) and Mathieu and Zajac (1990). The gender, education, and tenure were all found to have non-significant relationship with organizational commitment. Overall, the study findings were consistent with findings of studies conducted in the Western culture settings

### **Contribution to HRD**

This study endeavors to make both theoretical and practical contributions to HRD. Specially, three significant implications can be drawn from the study. First, this study enhanced our understanding of the relationship between job satisfaction and organizational commitment in Taiwanese employees working in small to midsize IT companies. Given that most of past studies on job satisfaction and organizational commitment have been conducted in the Western setting, this study brings much needed knowledge from an international perspective.

Second, the study contributes to the literature of HRD by expanding our knowledge base of workplace learning in small to midsize businesses. Previously, conventional wisdom has held that small to midsize businesses do little to develop the human resources in their organizations. Findings of this study revealed a different reality, that is, formal, informal, and incidental learning were found to be extensive in the small to midsize businesses under study.

Third, the evidence points to a strong link between workplace learning and organizational commitment in the organizations under study. In light of the economic landscape where downsizing and corporate restructuring have played and continue to play a significant role in shaping the workplace worldwide, organizations could use workplace learning as a strategic tool to regain employee commitment. Considering the corporate restructuring that continues to occur within organizations, employees are more than likely to place a greater emphasis on their careers, rather than simply allowing the organization to decide for them. Although employees may remain with the same company, they need to be retained to move into new jobs and new challenges. Employees would be interested in developing their skills to increase their marketability. Findings of this study confirm the importance of workplace learning to organizations, and it is one of the critical organizational characteristics that affect employees' commitment.

### **Limitations and Directions for Future Research**

Like all the studies, this one is not without limitations. First, workplace learning, job satisfaction, and organizational

commitment were measured by Rowden Workplace Learning survey (SBWLS), the Minnesota Satisfaction Questionnaire (MSQ), and the Organizational Commitment Questionnaire (OCQ). All three measurements were developed in a Western setting. It is important for researchers to be sensitive about the language issue when using these measurements in a non-Western setting to make sure the measurement is culture-free and not culture-bonded. In this study, the researcher did find the applicability of these measurements in a Chinese setting. However, more studies are needed in other cultural contexts to test the reliability of these Western-based instruments. At the same time, we call for more empirical studies to be done in order to develop indigenous instruments that may be more appropriate and effective in capturing the uniqueness of different cultural contexts.

Second, all data were obtained from a single questionnaire distributed to employees in small to midsize IT companies in Taiwan. Because all variables were measured by self-reports in this cross-sectional study, common method variance may be a problem. Future studies may address this problem by collecting data from multiple sources, including interviews and observations, and by using a longitudinal design where data will be collected at different points of time in a long period of time.

Lastly, despite the fact that organizations are making more efforts in developing their human capital and that the scope of workplace learning is expanding, there remains concerns over the contribution of workplace learning to desired organization outcomes, such as performance and productivity. In this study, the findings pointed to a significant relationship between workplace learning and organizational commitment, and between workplace learning and job satisfaction. However, more empirical evidence needs to be gathered to support the notion that workplace learning positively affects organizational performance and productivity.

## References

- Balfour, D. L., & Wechsler, B. (1991). Commitment, performance, and productivity in public organizations. *Public Productivity & Management Review*, 15, 355-367.
- Bartlett, K. R. (2001). The relationship between training and organizational commitment: A study in the health care field. *Human Resource Development*, 12(4), 333-352.
- Bateman, T. S., & Strasser, S. (1984). A longitudinal analysis of the antecedent of organizational commitment. *Academy of Management Journal*, 27(1), 95-112.
- Brislin, R. W., MacNab, B., Worthley, R., Kabigting, F., & Zukis, B. (2005). Evolving perceptions of Japanese workplace motivation: An employee-Manager comparison. *International Journal of Cross Cultural Management*, 5(1), 87-104.
- Brooks, G. (2002). Knowledge-based structures and organizational commitment. *Management Decision*, 40(2), 556-573.
- Brush, D. H., Moch, M. K., & Pooyan, A. (1987). Individual demographic differences and job satisfaction. *Journal of Occupational Behavior*, 8, 139-155.
- Buchanan, B. (1974). Building organizational commitment: The socialization of managers in work organizations. *Administrative Science Quarterly*, 19(4), 533-546.
- Chen, H. C., Holton III, E. F., & Bates, R. (2005). Development and validation of the learning transfer system inventory in Taiwan. *Human Resource Development Quarterly*, 16(1), 55-84.
- Des Reis, D. (1993). *The nature and extent of training in Georgia's manufacturing industries*. Unpublished doctoral dissertation, University of Georgia, Athens.
- Finegold, D. (1998). The new learning partnership-sharing responsibility for building competence. In S. Mohrman, J. Galbraith, E. Lawler III, and Associates (Eds.), *Tomorrow's organization-crafting winning capabilities in a dynamic world* (pp. 179-207). San Francisco, CA: Jossey-Bass.
- Francesco, A. M., & Chen, Z. X. (2004). Collectivism in action: It's moderating effects on the relationship between organizational commitment and employee performance in China. *Group & Organization Management*, 29(4), 425-441.
- Herzberg, F. (1968, January-February). One more time: How do you motivate employees? *Harvard Business Review*, 53-62.
- Hill, R., & Stewart, J. (2000). Human resource development in small organizations. *Journal of European Industrial Training*, 24(2/3/4), 105-117.
- Howard, J., & Frink, D. (1996). The effects of organizational restructure on employee satisfaction. *Group and Organizational Management*, 21(3), 278-303.
- Hulin, C. L., & Smith, P. C. (1964). Sex differences in job satisfaction. *Journal of Applied Psychology*, 48(2), 88-92.
- Kacmar, K. M., Carlson, D. S. & Brymer, R. A. (1999). Antecedents and consequences of organizational commitment: A comparison of two scales. *Educational and Psychological Measurement*, 59(6), 976-994.

- Kuo, Y. F., & Chen, L. S. (2004). Individual demographic differences and job satisfaction among information technology personnel: An empirical study in Taiwan. *International Journal of Management*, 21(2), 221-231.
- Lee, R., & Wilbur, E. R. (1985). Age, education, job tenure, salary, job characteristics, and job satisfaction: A multivariate analysis. *Human Relations*, 38(8), 781-791.
- Lien, Y. H. (2005). Career development and the needs of young college-educated females in Taiwan. *Journal of Career Development*, 31(3), 209-224.
- Lincoln, J., & Kalleberg, A. (1990). *Culture, control, and commitment: A study of work organization and work attitudes in United States and Japan*. Cambridge, UK: Cambridge University Press.
- Marsick, V. J. (1987). New paradigms for learning in the workplace. In V. J. Marsick (Ed.), *Learning in the workplace* (pp. 1-30). London, UK: Croom Helm.
- Mathieu, J., & Zajac, D. (1990). A review of meta-analysis of the antecedents, correlates and consequences of organizational commitment. *Psychological Bulletin*, 108(2), 171-194.
- Matthews, P. (1999). Workplace learning: Developing a holistic model. *The Learning Organization*, 6(1), 18-29.
- McFarlin, D. B., & Sweeney, P. D. (1992). Distributive and procedural justice as predictors of satisfaction with personal and organizational outcomes. *Academy of Management Journal*, 35(3), 626-637.
- McMurray, A. J., & Dorai, R. (2001). The relationship between workplace training and organizational commitment in Australian organizational settings: A preliminary analysis. In O. A. Aliaga (ed.), *Proceedings of the Academy of Human Resource Development International Research Conference*, Tulsa, OK: Academy of Human Resource Development.
- Meyer, J. P., & Allen, J. P. (1997). *Commitment in the workplace – Theory, research, and application*. Newbury Park, CA: Sage.
- Morrison, E. W., & Robinson, S. L. (1997). When employees feel betrayed: A model of how psychological contract violation develops. *Academy of Management Review*, 22(3), 226-256.
- Mowday, R. T., Steers, R. M., & Porter, L. W. (1979). The measurement of organizational commitment. *Journal of Vocational Behavior*, 14(2), 224-247.
- Mueller, C. W., & Price, J. L. (1990). Economic, psychological and sociological determinants of voluntary turnover. *Journal of Behavioral Economics*, 9(3), 321-335.
- Price, J. L. (1997). Handbook of organizational measurement. *International Journal of Manpower*, 18(4/5/6), 305-558.
- Reiner, D. M., & Zhao, J. (1999). The determinants of job satisfaction among United States air force security police. *Review of Public Personnel Administration*, 19(3), 5-18.
- Rowden, R. W. (1995). The role of human resource development in successful small to mid-sized manufacturing businesses: A comparative case study. *Human Resource Development Quarterly*, 6(4), 355-373.
- Rowden, R. W. (2002). The relationship between workplace learning and job satisfaction in U.S. small to midsize businesses. *Human Resource Development Quarterly*, 13(4), 407-425.
- Rowden, R. W., & Ahmad, S. (2000). The relationship between workplace learning and job satisfaction in small to mid-sized businesses in Malaysia. *Human Resource Development International*, 3(3), 307-322.
- Rowden, R. W., & Conine, C. T. Jr. (2005). The impact of workplace learning on job satisfaction in small US commercial banks. *Journal of Workplace Learning*, 17(3/4), 215-230.
- Samad, S. (2005). Unraveling the organizational commitment and job performance relationship: Exploring the moderating effect of job satisfaction. *The Business Review*, 4(2), 79-84.
- Samad, S. (2006). Predicting turnover intentions: The case of Malaysian government doctors. *Journal of American Academy of Business*, 8(2), 113-120.
- Tsay, C. L. (1994). Gender discrimination in the workplace: Implications for human resources development, *Paper presented at the Annual International Conference of Human Resource Management in the Asia-Pacific Region*, Kaohsiung, Taiwan.
- Vandenberg, R. J., & Lance, C. E. (1992). Examining the causal order of job satisfaction and organizational commitment. *Journal of Management*, 18(1), 153-167.
- Watkins, K. E., & Marsick, V. J. (1992). Towards a theory of informal and incidental learning in organization. *International Journal of Lifelong Education*, 11(4), 287-300.
- Weiss, D. J., Dawis, R.V., England, G.W., & Lofquist, L.H. (1967). *Manual for the Minnesota Satisfaction Questionnaire*. Minneapolis, MN: University of Minnesota.
- Wheaton, A. (1999). The generation of organizational commitment in a cross-cultural context. *Asia Pacific Business Review*, 6(1), 73-103.