

The Impact of Human Resource Practices on the Turnover of Employees with Different Job Functions and High and Low Job Performance

Paosi James Pang^a and Wen-Jeng Lin^b

^ajamespang007@giga.net.tw

Department of Insurance & Financial Management, Takming College

56, Sec. 1, HuanShan Rd., Neihu, Taipei 11451, Taiwan, R.O.C.

886-2-2658-5801 ext.5259

^bwenjeng@mgt.ncu.edu.tw

Institute of Human Resource Management, National Central University

38, Wu-Chuan, Chuan-Li City, Taiwan, R.O.C.

886-2-0952356292

Abstract

The purpose of the study is to examine the impact of human resource practices on high- and low-performance employee turnover for employees with different job functions. The results indicate that the effective human resource management can decrease turnover rates. The effects of human resource practices on low-performance employee turnover (i.e. healthy turnover) and high-performance employee turnover (i.e. unhealthy turnover) rates are different. The regression analyses results show that the effects of practicing human resources on high-performance employee turnover rates are greater than that the effects on low-performance employee turnover rates. Additionally, for human resource management functions, training and selection can decrease the turnover rate of high-performance indirect employees, whereas labor relations and incentive pay can decrease the turnover rate of high-performance direct employees. Career development can decrease the turnover rates of low-performance indirect employees, whereas incentive pay can decrease the turnover rates among low-performance direct employees.

Introduction

Global surveys have shown that the employee turnover rate has been increasing annually in 52% of corporations in recent years (Wilson, 2000). Enterprises must adopt effective management practices to respond to talent turnover problems.

Previous studies related to turnover rates have primarily investigated the negative impact of employee turnover rates on organization performance and have more often than not ignored any positive impact of employee turnover rates on organizations (Staw, 1980; Abelson & Baysinger, 1984; Glebbeek & Bax, 2004). Numerous studies related to employee turnover analyze and predict the reasons for employee voluntary turnover from the aspect of individual perceptions or behaviors (Graen & Ginsburgh, 1977; Mowday, Stone, & Porter, 1978). For the most part they have all turnover-employees as their objects of study (Hom & Griffeth, 1995; March & Simon, 1958; Mobely, 1977; Price & Muller, 1981) and rarely investigate the impact of different management practices on employee turnover in different employment types (direct vs. indirect) from the organizational aspect of management practices.

Additionally, past research has mostly had a job mobility perspective in mind and still used low-performance employee voluntary-turnover as the research scope in regard to organization function considerations, which has prevented conventional turnover research from applying the correct solution to this organizational problem. Studies with high-performance employee turnover as the topic indicate that high-performance employee turnover causes a great injury to organizations (Dalton, 1981; Dalton & Todor, 1979; Muchinsky & Morrow, 1980; Staw & Oldham, 1978). These studies recommend that enterprises improve management of the problem of superior performance employee turnover.

Although it is essential to differentiate turnover into voluntary and involuntary turnover, in employee turnover research, it is none-the-less unsuitable and inadequate. The majority of papers tend to investigate voluntary turnover when investigating the problem of employee turnover (Graen & Ginsburgh, 1977; Krackhardt, Mckenna, Porter & Steers, 1981; Mowday, Stone & Porter, 1978). However, it is not actually true, as is presupposed, that high-performance employees will not choose to resign. In turnover research, differentiating turnover into low-performance employee turnover (or functional turnover) and high-performance employee turnover (or dysfunctional turnover) has greater significance. The turnover behavior and intentions of those employees capable of providing greater contributions to organizations should be regarded with more importance by management. Enterprises must apply human resource (HR) practices in order to ensure that high-performance employees are willing to continue to strive on behalf of the organization.

Enterprises create employees of different employment types on the basis of specialization considerations. If performance measurability is used, direct employee job assignment and production can be more accurately understood while the indirect employee job assignment and production is more difficult to understand. Accordingly, there may be some variance in the turnover phenomena of employees of different employment types and the impact of HR practices on the turnover of different employee employment types may also differ.

The HR practices enterprises adopt in relation to employees affect the intentions of employee turnover decisions (Huselid, 1995; Shaw, Delery, Jenkins & Gupta, 1998). However, whether or not those that remain are the talent of superior performance which enterprises desire to retain, or those that the enterprise intends to replace, is a question that these studies have yet to answer appropriately. As a result, the principle questions of this study are: (1) Are the retention effects of ideal HR practices greater on talent of superior performance or are the retention effects greater on poor performance employees? (2) If ideal HR practices have the function of reducing the turnover rate of talent of superior performance, then precisely which HR practices (such as selection, training, salary, and labor-capital relations for instance) have the greater retention effect? (3) And if ideal HR practices have the function of reducing the turnover rate of talent of superior performance, does different HR practices produce a different retention effect on the different employee employment types of direct and indirect employees?

Literature Review

HR management is strategies, activities/measures and systems that affect employee behaviors, attitudes and performance. Furthermore, all HR management activities are engaged in with the strategic connotations of laying the foundation for the maximum effect on the performance of the entire organization in order to create maximum effectiveness (Noe et al., 2001). HR management activities include staffing, training, salary incentive, employee participation, internal labor market, group and job security and these activities produce an effect on employee competence, technique, motivation and job structure (Delaney & Huselid, 1996). Strategic HR management practices can be divided into seven variables including internal career opportunities, training systems, performance appraisals, profit-sharing plans, employment security, voice mechanisms, and degree of job clarity (Delery & Doty, 1996).

Combining the formulations of the previously mentioned scholars, HR practices can be summarized into the eight primary categories of “hiring selection”, “education/training”, “performance appraisals”, “career development”, “employee participation”, “labor-capital relations”, “incentive compensation”, and “degree of HR involvement in strategic planning”.

“Turnover” is defined as the determination to leave ones original position in an a certain job in an organization, after working for a certain period of time, leading to the loss of the job, and the benefits which it provides; and the severing of all relations with the original organization (Mobley, 1977) □ The HR practices enterprises adopt towards employees affect their turnover decision intentions (Huselid, 1995; Shaw, Delery, Jenkins & Gupta, 1998).

Hypothesis 1: The more comprehensive the HR practices the better they are able to reduce employee turnover rate.

The work of indirect laborers is more similar to that of information workers. The work model has the characteristics of possessing a service function, a lower degree of repetitiveness, it is uncertain, information intensive, and its productivity is not easily measured and it involves delayed production. The characteristics of the work of direct laborers are that it has a high degree of certainty, the repetitive nature of the work content is high, it has a low degree of complexity, it is labor intensive, and its productivity is easily measured (Wang, 1997). Direct and indirect laborers play markedly different division-of-labor roles in organizations and their HR practices are also of a different disposition. For instance, direct laborers, perhaps because what they produce can be more precisely measured, adopt a higher performance pay ratio. Accordingly, based on the discrepancies in the role and work content, HR practices may have different effects on direct- and indirect-laborers turnover.

Hypothesis 2: HR practices have different degrees of influence on the turnover of direct laborers and indirect laborers.

Conventionally, turnover is divided into voluntary turnover and involuntary turnover (Price, 1977). Voluntary turnover refers to the employee's own decision to turnover because of certain organizational factors such as pay, promotion, job challenges, job opportunities, and interpersonal relations. Involuntary turnover, then, is the enforced execution of turnover by the employer or the organization and it does not originate in the aspirations of the employee and frequently involves severance pay or layoffs.

Research into the turnover phenomenon generally focuses on voluntary turnover. Furthermore, the conventional description of turnover behavior has aspects to it which are truly irrational. As a result, voluntary turnover is further divided into the two categories of low-performance-employee functional turnover and high-performance-employee dysfunctional turnover on the basis of whether or not employee turnover is beneficial to the organization (Dalton, Todor & Krachdrat, 1982). Functional voluntary turnover refers to the desire for turnover of low-evaluation employees in situations where organizations are not concerned with the turnover. Dysfunctional voluntary turnover is the desire for turnover of high-evaluation employees, in situations where the organizations desire to placate and retain the employee because the loss will harm the overall organization interests.

Preventable turnover and unpreventable turnover are distinguished on the basis of whether or not organizations can avoid it (Strauss & Sayles, 1980). Preventable turnover is that which the efforts of the organization or managers can potentially change employee turnover intentions. Unpreventable turnover refers to turnover resulting from uncontrollable reasons like sickness, death and pregnancy.

Integrating the classifications described above, turnover can initially be divided into voluntary turnover and involuntary turnover. Voluntary turnover can be further divided into functional turnover and dysfunctional turnover and dysfunctional turnover can, in turn, be further divided into preventable and unpreventable turnover (Hom & Griffeth, 1995). Employee job performance can be used to distinguish between functional and dysfunctional turnover (Campion, 1991). Dysfunctional turnover represents those with good performance or those possessing the skills required by the organization and those who have received training but who ultimately choose to leave the organization. The loss of employees of this type produces a negative blow to organizations and organizations must regard dysfunctional voluntary turnover with greater importance (Dalton, Todor & Krackhardt, 1982).

The relationship between employee turnover rates and organization performance is not in fact linear and exhibits an inverse U-shape relationship. That is to say that both an excessively high or excessively low turnover rate is not beneficial to organization performance and only when there is an optimal turnover rate is it most beneficial to organization performance (Abelson & Baysinger, 1984; Glebbeek & Bax, 2004). Optimal turnover rate emphasizes “low-performance-employee turnover rate” and not “high-performance-employee turnover rate”, which means that the optimal turnover rate is not equivalent to the functional turnover and at least the vast majority of those that turnover should be those of a low-performance type.

Accordingly, if it is believed that the various HR management practices effect employee turnover tendencies, then organizations must have a greater desire that these effects are capable of being dedicated to retaining employees who exhibit superior performance and not those with poorer contributions. On the basis of the above discussion, the following hypotheses are proposed:

Hypothesis 3: HR practices have different degrees of influence on low-performance employee turnover and high-performance employee turnover.

Hypothesis 4: Different HR practices have different effect outcomes on low-performance employee turnover and high-performance- employee turnover.

Research Method

(1) Questionnaire Item-design Independent Variables

The career-development cases proposed by scholars such as Hall & Schein (1988) and Ivancevich & Glueck (1989) were consulted and the more applicable career-development cases were sifted out to measure the extent to which enterprises internally practice employee career management. The more applicable education/training cases were chosen after a shifting out process in accordance with the education/training requirement analysis, planning and practice and training-result evaluation aspects proposed by Tracey (1984). Consulted and revised the labor-capital relations questionnaire developed by Dastmalchian (1989). Organization Strategy Planning Involvement integrates the research developments of Golden & Ramanujam (1985) and Wright (1998) et al. and measures the degree of HR involvement in strategy planning. Zhu's (1996) pay design factor scale is consulted and revised to form this section of the incentive compensation questionnaire. The questionnaire design for selection, performance appraisals and participation are based on the HR management activity items from Delery & Doty (1996) and are constituted out of consultation and revision of the study questionnaires of Snell & Dean (1992), Delaney & Huselid (1996), and Becker & Huselid (1998).

(2) Dependent-Variable Turnover-Rate Design

High-performance Employee Turnover Rate (Dysfunctional Turnover Rate): On the basis of the performance appraisal results, the respondents were differentiated by their annual performance assessments into the top 30%, the middle 40% and the lower 30%. The turnover rate was calculated by “dividing turnovers in a specific period by the average overall annual corporate employee number”. Moreover, the annual average number was calculated by “adding the beginning-of-the-year employee number and the year-end employee number to the average value”.

Low-Performance Employee Turnover Rate (functional turnover rate): Among the corporate turnover personnel, those whose annual performance assessments were in the bottom 30% were defined as the low-performance functional turnovers.

(3) Control Variables

Firm-scale effects organization performance (Youndt et al., 1996) and employee mobility rates (Parsons, 1973). The present study uses organization characteristics as the control variables. All of the effects produced by organization scale are controlled. Organization scale is measured using employee number and capital amount. The length of time of the organizations' establishment was included in the considerations to more accurately understand the influence effects of HR practices on turnover rates.

(4) Questionnaire Distribution

This study used Taiwan manufacturing firms as the research subjects, consulted the Industrial Development Bureau of the Ministry of Economic Affairs' firm registry and used a random sampling method to conduct questionnaire distribution. A total of 200 questionnaires were distributed by mail receipt to gather information. The distribution of the questionnaire and the focus of the respondents were directed at the directors of the HR departments. Additionally, purposive sampling, using a variety of relationships, such as those with schoolmates and family and friends, was adopted to assist in distributing the questionnaire to directors of the HR departments in different manufacturing industry firms to enhance accuracy and increase the rate-of-return. A total of 150 questionnaires were distributed in this manner bringing the overall number to a total of 350 questionnaires distributed.

Research Results

This questionnaire is targeted towards manufacturing industry firms in the Taiwan region. The distribution of the questionnaire involved both a printed version and an electronic version. A total of 86 questionnaires were returned, of which there were 77 valid questionnaires representing a valid questionnaire rate-of-return of 22%.

The Cronbach's α coefficient for overall HR practices is 0.9571 and that the Cronbach's α coefficient for each construct exceeds the 0.7 high reliability standard (Table 1). Accordingly, the reliability of this questionnaires measurement scale is good and each measurement construct-variable has a respectably high internal consistency.

Table 1: Questionnaire Reliability Analysis

Measurement Scale	Number of Questions	Cronbach's α
Overall HR Practices	41	0.9571
Career Development	7	0.7883
Education/Training	5	0.8040
Performance Appraisal and Management	5	0.7441
Recruiting Selection	4	0.7888
Employee Participation	2	0.8469
Labor-Capital Relations	5	0.8765
Degree of HR Strategic Planning Involvement	5	0.9237
Incentive Compensation	4	0.7657

According to Table 2, among HR practices, there is a significant negative correlation between career development, education/training, recruiting selection, involvement in organization strategic planning, performance appraisals, and labor-capital relations and high-performance dysfunctional turnover among indirect laborers. Furthermore management practices overall-constructs have a significant negative correlation with high-performance dysfunctional turnover among indirect laborers. The high-performance dysfunctional turnover of direct laborers has a significant negative correlation with the HR practices of incentive compensation, labor-capital relations, career development, and employee participation. And the overall constructs of management practices have a significant negative correlation to the high-performance dysfunctional turnover of direct laborers.

Table 2: Summary of Correlation between HR Practices and High-performance Employee Turnover-rate

Management Practices Constructs	Indirect Employees	Direct Employees
Career Development	-0.353 **	-0.253 *
Education/Training	-0.530 **	-0.218
Recruiting Selection	-0.394 **	-0.111
Performance Appraisals	-0.252 *	-0.207
Employee Participation	-0.215	-0.267 *
Labor-Capital Relations	-0.243 *	-0.362 **
Degree of HR Strategic Planning Involvement	-0.362 **	-0.191
Incentive Compensation	-0.139	-0.452 **
All Practices	-0.368 **	-0.325 **

*p<.05 **p<.01

According to Table 3, the HR practices of education/training, recruiting selection, involvement in organization strategic planning, performance appraisals, and labor-capital relations all have a significant negative correlation with the low-performance functional-turnover of indirect laborers. Overall management practices constructs also have a significant negative correlation to the low-performance functional-turnover of indirect laborers. Moreover, the functional turnover of direct laborers also has a significant negative correlation with incentive compensation. Finally, overall management practice constructs also have a significant negative correlation with the low-performance functional-turnover of direct laborers. On the basis of the Table 2 and 3 correlation analysis, Hypothesis 1 2 & 3 are supported.

Table 3: Summary of Correlation between HR Practices and Low-performance Employee Turnover Rate

Management Practices Constructs	Indirect employees		Direct employees	
Career Development	-0.095		-0.202	
Education/Training	-0.326	**	-0.111	
Recruiting Selection	-0.245	*	-0.164	
Performance Appraisals	-0.233	*	-0.178	
Employee Participation	-0.180		-0.212	
Labor-Capital Relations	-0.336	**	-0.221	
Degree of HR Strategic Planning Involvement	-0.248	*	-0.123	
Incentive Compensation	-0.139		-0.321	**
All Practices	-0.247	*	-0.240	*

*p<.05 □**p<.01

If only the comparative size of the correlation coefficient values are used to judge the research hypotheses it is not necessarily possible to avoid false correlation problems. Accordingly, hierarchical regression analysis is adopted to conduct additional testing and verification of whether the research hypotheses are established.

In order to comprehend the predictability of HR practices on the turnover rate of employees with different job content and different performance levels, this study uses the eight HR practice constructs to separately conduct hierarchical regression analysis on the high-performance employee and low-performance employee turnover rates of both direct and indirect laborers to explore the ability of the predictor variables to predict the dependent variables. At the same time, in order to eliminate any potential effects, resulting from different sample characteristics, on the explanatory power of the dependent variables, organization capital amount, employee number and date of establishment are employed as control variables. Then hierarchical regression analysis is used to explore the potential effects of each of the HR practices on the employee turnover rate of different employment types.

Through the prediction results analysis and by summarizing the results of into Table 4, it can be observed in the R^2 and F values that HR practices have a different impact in reducing the turnover of direct and indirect laborers (Supporting Hypothesis 2). This demonstrates that HR practices have a different impact on employee turnover in different types of employment. The impact of HR practices also differs when it comes to employee turnover in high-performance employees and low-performance employees. The reduction effects of HR practices on the turnover rate of high-performance employees are greater than they are on the turnover rate of low-performance employees (supporting Hypothesis 3). This means that each of the HR management practices possess a greater “talent retention effect” on employees who exhibit good performance in the organization.

Table 4: Summary Chart of the Effects of HR Practices on High- and Low-performance Employee Turnover

HR Practices	Indirect Laborers		Direct Laborers	
	High-perfor mance	Low-perfor mance	High-perfor mance	Low-perfor mance
R^2	.368	.222	.336	.240
ΔR^2	.345	.204	.300	.151
F Value	3.393***	1.633	2.949**	1.840

* $p < .05$ ** $p < .01$ *** $p < .001$

The results of hierarchical regression analysis show that education/training and recruiting selection have the function of reducing the turnover rate of exceptional indirect laborers. Furthermore, labor-capital relations and incentive compensation are shown to have the function of reducing the turnover rate of exceptional direct laborers. Evidently, there are differences in the effects of HR practices on the superior-performance employee turnover-rate of direct and indirect laborers (supporting Hypothesis 4). Incentive compensation has a significant impact on reducing turnover in both high- and low-performance direct-laborers. Only the career development practice produces an impact on lowering the turnover of low-performance indirect-laborers which differs from the effects of education/training and recruiting selection on high-performance indirect laborers.

Research Conclusions and Management Implications

All of the hypotheses of this study are supported. Not only are the reduction effect results of HR practices on employee turnover rates supported but effect results were also found to exist in different HR practices on employees of different employment types and on employees exhibiting different degrees of performance. This is the greatest contribution of this study and it has considerable management connotations.

Either an excessively high or excessively low turnover rate will produce a negative impact on organization performance. Accordingly, organizations must attempt to apply effective HR practices to control the optimal turnover rate (Abelson & Baysinger, 1984). Although HR practices also have the effect of reducing the turnover of poor-performance employees, in general, the retention effects on talent of a superior performance are more pronounced and more significant. The impact of different HR practices on the retention of direct and indirect laborers whom exhibit good performance differs. The variations in the job characteristics and demands of direct and indirect laborers result in the adoption of different strategic HR practice choices and different HR practices bring different turnover responses and effects from high-performance direct and indirect laborers.

In summary, many HR practices can achieve the effect of reducing employee turnover rates. However, if enterprises wish to retain indirect laborers of good performance they need to regard the functions of education/training and selection with greater importance. Similarly, if enterprises desire to retain direct laborers of good performance, then they need to regard incentive compensation and labor-capital relations with greater importance. In situations where enterprises face low-performance employees, they can adopt different incentive compensation practices to encourage direct laborers of poor performance to choose turnover or increase their efforts to raise their productivity. Career development design may also cause poor-performance indirect laborers to make a choice regarding turnover.

Future Research Direction and Research Limitations

(1) Regarding employee turnover rate as a mediating variable: HR management can become a strategic partner and have a positive impact on exhibited corporate performance (Huselid, 1995; Schuler & Jackson, 1987; Plevel, Lane, Schuler, & Nellis, 1995; Huselid, Jackson, & Schuler, 1997). The results of this study illustrate that HR practices do indeed affect employee turnover rates (especially high-performance employee turnover) and turnover rates also affect organization performance (Huselid, 1995; Staw, 1980; Abelson & Baysinger, 1984; Glebbeek & Bax, 2004). Organizations reduce employee turnover rates (especially high-performance employee turnover) through HR practices in order to increase overall organization performance and in this way make the managerial importance of turnover even more apparent.

(2) Regarding employee turnover rate as a control variable: The relationship between employee turnover rate and organization performance is not a linear relationship but exhibits an inverse “U” shape. This means that both an excessively low and an excessively high turnover rate are not beneficial to organization performance. Only an optimal turnover rate is beneficial to organization performance (Abelson & Baysinger, 1984; Glebbeek & Bax, 2004). Accordingly, in different turnover-rate circumstances, HR practices have different connotations for exhibited organization performance. Through this process, enterprises can seek an optimal turnover rate that can turn poor organization performance to positive organization performance and in so doing provide policy makers with adjustments to the management practices of functional and dysfunctional turnover.

(3) Effects of HR Practices on Employee Turnover Rate Optimization: HR practices are effective in reducing both high-performance employee turnover rates and low-performance employee turnover rates. However the effects on high-performance employee turnover rates are more significant. This conclusion illustrates that the more active the HR practices, the more they are able to produce the anticipated results. Future research may be able to consider using linear equations in-two-unknowns to conduct nonlinear regression equations to seek the relationship between HR practices and turnover. It is possible that these nonlinear regression equations can find the optimum investment of HR practices and allow policy makers to better grasp the optimization of the resources they invest in.

(4) Research Limitations: In utilizing a questionnaire method to conduct data collection, because a portion of the data including the survey of enterprise internal turnover rate and the distribution situation of employee-performance turnover, are of a sensitive nature, within enterprises it is possible that the respondents were reticent in responding to the topics of turnover and performance. It is also possible that this resulted in the less than satisfactory questionnaire return rate. In studies that investigate the causal model, it is difficult to avoid endogeneity and reverse causality problems between variables. A phenomenon of retrospective attribution may exist in investigations of the correlation between HR practices and employee turnover rates. In other words, do HR practices alter employee turnover rates or is it in fact that excessive employee turnover rates cause organizations to revise HR practices. Furthermore, the time lag between employee turnover rates and HR practices precludes the elimination of a simultaneous coming into existence of HR practices and employee turnover rates and data from a point in time is incapable of being used to judge HR strategy results subsequent to extending the time-frame. Future research can consider t and $t +$ one-year employee-turnover circumstances (autocorrelation) and utilize the bi-level least-squares method of ordinary least-squares regression or adopt long-term data tracing diversified measurement indices to improve problems of reliability consistency. In addition to distributing questionnaires to HR department directors, future studies can attempt to survey and interview employees who have already decided to turnover and current employees, while simultaneously conducting organizational level and individual level turnover behavior cross-level-of-analysis research. In this way future research can more accurately estimate the time lag between the implementation of HR practices and the resulting reduced employee turnover by collecting data at different times and places and from multiple sources.

References

- Abelson, M. A. and Baysinger, B. D., "Optimal and dysfunctional turnover: Toward an organizational level model," *Academy of Management Review*, 9, 1984, pp. 331-341.
- Becker, B. E. and Huselid, M.A., "High performance work systems and firm performance: A synthesis of research and managerial implications," *Research in Personnel and HR Management*, 16, 1998, pp. 53-101.
- Campion, M., "Meaning and Measure of Turnover: Comparison of Alternative Measures and Recommendations for Research," *Journal of Applied Psychology*, 76, 1991, pp. 199-212.5.
- Dalton, Dan R., Todor, W.D., Krackhardt and David M., "Turnover Overstated: The Functional Taxonomy," *The Academy of Management Review*, 1982, pp. 117-123.

- Delaney, J. T. and Huselid, M. A. (1996), "The impact of HR management practices on perceptions of organizational performance," *Academy of Management Journal*, 39 (4), 1996, pp. 949-969.
- Delery, J. E. and Doty, D.H., "Modes of theorizing in strategic HR management: tests of universalistic, contingency, and configurational performance predictions," *Academy of Management Journal*, 39 (4), 1996, pp. 802-835.
- Graen, G. and Ginsburgh, S., "Job resignation as a function of role orientation and leader acceptance: A longitudinal investigation of organizational assimilation," *Organizational Behavior and Human Performance*, 30, 1977, pp. 109-131.
- Griffeth, R. W. and Hom, P. W., Gaertner, S., "A meta-analysis of antecedents and correlates of employee turnover," *Journal of Management*, 26, 2000, pp. 463-488.
- Hom, P. and Griffeth, R. W., *Employee Turnover*, Cincinnati, OH: South-Western, 1995.
- Huselid, M. A., "The impact of HRs management practices on turnover, productivity and corporate financial performance," *Academy of Management Journal*, 38, 1995, pp. 635-672.
- Krackhardt, D.M., Mckenna, J., Porter, L.W. and Steers, R.M., "Supervisory behavior and employee turnover: A field experiment," *Academy of Management Journal*, 24, 1981, pp. 249-259.
- LI Zhanggui, QI Shucheng and ZHU Chengming, "Literature review and discussion model of pay design", *Human Resource Management Journal*, 6, 1996, pp. 57-85.
- March, J. G. and Simon, H. A., *Organizations*, New York: Wiley, 1958.
- Mowday, R., Porter, L.W. and Stone, E.F., "Employee characteristic as predictors of turnover among female clerical employees in two organizations," *Journal of Vocation; Behavior*, 1978, pp. 112, 321-332.
- Muchinsky, P. M. and Morrow, P. C., "A multidimensional model of voluntary employee turnover," *Journal of Vocational Behavior*, 17, 1980, pp. 263-290.
- Noe, R. A. et al., *HR management: gaining a competitive advantage*, (3rd ed.), McGraw-Hill Companies, 2001.
- Parsons, D. O., *Specific Human Capital: An Application to Quit*, 1973.
- Plevel, M., Lane, F., Schuler, R. and Nellis, S., "Business strategy and HR management, A profile of AT&T global business communication systems," In G. R. Ferris, S. D. Rosen and D. T. Barnum, D. (Eds.), *Handbook of HR Management*, Oxford, UK: Blackwell Publishers, 1995, pp. 42-65.
- Price, J. L., "The study of turnover," Ames, LA.: The Iowa State University Press, 1977.
- Price, J. L. and Mueller, C.W., "A causal of turnover of nurse," *Academy of Management Journal*, 24 (3), 1981, pp. 547.
- Schuler, R. S. and Jackson, S. E., "Linking competitive strategies with HR management practices," *Academy of Management Executive*, 1 (3), 1987, pp. 7-19.

- Snell S.A and Dean. J. W.,” Integrated manufacturing and HR management: A human capital perspective,” *Academy of Management Journal*, 35 (3), 1992, pp. 467-504.
- Staw, B. M., “The consequences of turnover,” *Journal of Occupational Behavior*, 1, 1980, pp. 253-273.
- Staw, B.M.,and Oldam, R.R.,“Reconsidering out dependent variables: A critique and empirical study,” *Academy of Management Journal.*, 21, 1978, pp. 539-559.
- Strauss, G. and Sayles, L. R., *The Human Problems of Management* (4th ed). New Jersey: Prentice Hall. Inc., 1980.
- Tracey, W.,“Designing training and Development Systems,” NY: Amaco. Sterrs, 1984.
- Venkatraman N., (1989) “Strategic Orientation of Business Enterprises: The Construct, Dimensionality and Measurement,” *Management. Science*, 35 (8), 1989, pp. 942-962
- Wang, Errui , “Indirect Human Resource management”, Taipei: Wunan Publishing, 1997.
- Wilson, T.,“Brand imaging: Five steps to developing a retention program,” *ACA News*, 43, 2000, pp. 44-48.
- Wright, P. M., McMahan, G.C., McCormick, B. and Sherman, W.S.,“Strategy, core competence, and HR involvement as determinants of HR effectiveness and refinery performance,” *HR Management*, 37 (1), 1998, pp. 17.
- Youndt, M.A., Snell, S.A, Dean,J.W, Jr. and Lepak, D.P., “HR management, manufacturing strategy, and firm performance,” *Academy of Management Journal*, 39 (4), 1996, pp. 836-866.