

HUMAN RESOURCE PRACTICES AS DETERMINANTS OF EMPLOYEE TURNOVER: AN EMPIRICAL INVESTIGATION

Muhammad Aminu Bawa¹ and Muhammad Jantan²

¹Department of General Studies, Petroleum Training Institute, Effurun,
Delta State, Nigeria

²Centre for Policy Research, Universiti Sains Malaysia,
11800 USM, Pulau Pinang, Malaysia

e-mail: ¹maminubawa@yahoo.co.uk, ²mjantan@usm.my

ABSTRACT

The volume of literature on the causes of employee turnover continues to grow. In spite of this, attempts to distinguish between the causes of voluntary and involuntary turnover in organizations, though recognized for quite some time, receive little attention from researchers. The two phenomena seem to be influenced by a different set of factors. There are clear-cut theoretical and empirical reasons for this assertion. The objective of this paper is to investigate the relationship between human resource (HR) practices and employee turnover in Malaysia where companies are generally experiencing labour shortage and labour turnover. Using data collected from a census of managers, the study utilized Analysis of Variance (ANOVA) and simple regression and tested hypotheses developed to investigate the relationship between HR practices and employee voluntary and involuntary turnover. The results show that (1) staffing process and employee monitoring were effective in reducing involuntary turnover, and (2) none of the HR practices were effective in reducing voluntary turnover. In other words, workers continue to leave or quit irrespective of the type of HR practices implemented. The paper concludes that economic factors such as availability of alternative jobs are most likely relevant in explaining the turnover process. Based on these findings, various strategies were suggested which have wider managerial and policy implications for the management of turnover in similar settings.

INTRODUCTION

The volume of theoretical and empirical literature on the causes of employee turnover continues to grow (Armknrecht & Early, 1972; Huling, Roznowski, & Hachiya, (1983); Huselid, 1995; March & Simons, 1958; Miller & Van der Merwe, 1980; Mobley, 1977; Mobley et al., 1979; Price, 1977). In spite of this, attempts to distinguish between the causes of voluntary and involuntary turnover in organizations, though recognized for quite some time, received little attention from researchers (Shaw et al., 1998). The paper has six sections including this introduction. The second section presents literature review and hypotheses while section three is devoted to research design and methodology. Results of the study

are in section four. Sections five and six contain discussions and implications, respectively.

LITERATURE REVIEW AND HYPOTHESES

Two themes are addressed in this review: (1) HR practices and voluntary turnover, (2) HR practices and involuntary turnover.

HR Practices and Voluntary Turnover

In the case of voluntary turnover, many researchers hold the position that employees leave their jobs when their needs are not being satisfied by their present job and an alternative job becomes available. Huselid's (1995) extensive survey of literature found that perceptions of HR practices such as job security and compensation level are important determinants of employee turnover. Similarly, the negative relationship between working conditions and voluntary turnover has received attention from many researchers (Mowday, Porter, & Steers, 1982; Gupta & Jenkins, 1991; Saiyadain & Ahmad, 1997) indicating the propensity of employees quitting their jobs when working conditions are not conducive. The study conducted by Saiyadain and Ahmad (1997) on Malaysia found that 90% and 68% of workers in the private and public estates, respectively, indicated that what they hated most is poor working conditions in their estates. This is confirmed by the response of the estate managers.

Research also indicates that HR practices such as pay, benefits and training are negatively related to turnover because they motivate employees and "lock" them to their jobs (Lazear 1986; Madrian, 1994; Gruber & Madrian, 1994). Training can define roles more clearly to employees, thereby reducing job stress. Organizations with substantial training opportunities should thus have lower involuntary turnover rates. The foregoing shows that HR practices seem to be negatively associated with voluntary turnover which forms the basis for the first hypothesis:

H1: There is a significant negative relationship between HR practices and voluntary turnover.

HR Practices and Involuntary Turnover

Empirical studies such as those conducted by Shaw et al. (1998) indicate that involuntary turnover is affected by staffing practices (recruitment and selection process) and employee monitoring (performance appraisal). Similarly, Schmidt and Hunter (1983) argue that the attention organizations pay their employee

selection affects the quality of those recruited. This is reflected in the staffing process – the selection ratio (that is how selective the organization can be) and the validity of the selection process. Using valid selection procedures is likely to result in to better-informed recruitment and selection decisions leading to lower involuntary turnover. Huselid (1995) showed that selective staffing practices are related to total turnover. In the case of monitoring employee performance, the use of performance appraisal is a way organizations keep track of the contributions of each employee (Murphy & Cleveland, 1991). This enables the organization to terminate an employee when his/her contribution is less than desirable. In sum, organizations with effective performance appraisal systems are likely to be able to track down and terminate poor performers. Thus, effective processes of employee selection coupled with performance-based pay system are likely to enable managers to reduce involuntary turnover. Accordingly, the following hypothesis is proposed:

H2: There is a significant negative relationship between HR practices and involuntary turnover.

RESEARCH DESIGN AND METHODOLOGY

The data for this analysis were collected as part of a larger survey conducted on the theme "Human Resource Management Practices and Firm Performance in Malaysia" in 1999. The sample was drawn from four major oil palm producing states of Johor, Pahang, Perak and Sabah (Malaysia Agricultural Directory & Index 1997/98). This approach is similar to the one by Saiyadain and Ahmad (1997). A 16% response rate was attained, resulting in a final sample of 129 managers.

The design of the questionnaire for this research utilized many sources in constructing the measures of HR practices. The items were adapted from Huselid, Jackson, and Schuler (1997), Snell and Dean (1992), Shaw et al. (1998), Delery and Doty (1996) and the document on the periodical collective agreement between the Malayan Agricultural Producers Association (MAPA) and the National Union of Plantation Workers (NUPW) (MAPA, 1995). Items include are recruitment and selection, orientation program for new workers, on-the-job and formal training, and performance appraisal in terms of dimensions such as (1) time spent, (2) amount of money spent in recruitment and training, (3) duration and number of people involved in performance appraisal, etc., as well as compensation. Other measures include internal career opportunities, formal training systems, appraisal measures, profit sharing, employment security, voice mechanisms and job definition. Both Likert type and continuous scales were employed. Examples for the Likert type scale are "We use tests, interviews, etc.,

to select workers for a job", "We have comprehensive job description for workers" and "We provide job training to teach new skills". The 5-point Likert scale (1 = Never and 5 = Very Often) is utilized. Interviews with some managers, pre-test and pilot test feedbacks indicate that the multiple item measures used for the HR practices would be familiar to managers.

To construct the measure for employee turnover, key respondent reports are typically used in organizational turnover research (Arthur, 1994; Huselid, 1995; Shaw et al., 1998). We did the same in this research. Two rates of turnover are measured: voluntary turnover (quits) and involuntary turnover (discharges). We asked managers about the number of workers who had left the estate voluntarily and involuntarily over the past financial year (1998). This figure is divided by the total number of field workers, derived from a separate question asked at the beginning of the questionnaire, to measure the turnover rate.

Construct Validity and Reliability Analyses

One of the important steps in data analysis is to understand the underlying dimensions or proposed dimensionality of variables in a proposed model or relationships in empirical research (Hair et al., 1995). This is achieved using factor analysis that addresses the problem of analyzing the structure of interrelationships (correlations) among a large number of variables (questionnaire responses in this case) by defining a set of common underlying dimensions known as factors.

A principal components factor analysis with Varimax rotation was used to help assess the unidimensionality of the 28 items scale proposed to measure HR practices. Seven factors emerged with loading of at least 0.50. They are named *job description, staffing process and employee monitoring, formal training, participation, job security, performance measurement and wages*.

The next step was to determine the reliability of the constructs to make sure that they are free from error and therefore yield consistent results. One of the aspects of reliability used in this research is internal consistency that indicates the level of homogeneity of a scale measure. The widely used criterion for assessing the reliability of a multiple-item measure is Cronbach's coefficient alpha. To ascertain the internal consistency of the measurement instruments, reliability analysis was conducted on the factors extracted using the recommendations of Nunnally (1978). Following Nunnally's guidelines, minimum reliability (Cronbach alpha) of 0.70 was set. This minimum is consistent with the works of other researchers such as Murphy and Davidshofer (1988, cited in Peterson, 1994). According to these researchers, a Cronbach alpha value below 0.60 is unacceptable, 0.70 is low level, 0.80–0.90 moderate and 0.90 is considered high.

Based on this guideline, only three of the seven constructs had coefficient alpha values exceeding 0.70. These are job description, staffing process and employee monitoring and formal training. The other four factors, participation (Cronbach alpha = 0.68) and job security (Cronbach alpha = 0.63), performance measurement (Cronbach alpha = 0.59) and wages (Cronbach alpha = 0.41) have coefficient alpha values less than the recommended 0.70. This means their internal consistency was weak and therefore, they are not used in subsequent analyses. In the next section, we utilized the three factors to evaluate the two hypotheses developed.

RESULTS

Overview of Data Gathered

The data gathered show that the average age of the managers is about 46 years and about one-third or 36% of them attained secondary school education, another half (47%) have diploma and other types of advanced level of education and 17.0% are graduates. In addition, about two thirds of the managers attained professional qualifications like Plantation Management (48.8%), Human Resource Management (10%) as well as marketing, finance/accounts (7.1%). Years of experience as manager vary widely from a minimum of one to a maximum of 30 years with an average of 11 years. About half of the managers attended training and 70% of them belong to professional associations. Similarly, the sample is almost equally distributed between public (52.0%) and private (48.0%) estates. On the average, the estates have been in operation for about 24 years (standard deviation = 18 years). The average size of the estates was 1,841 hectares. The composition of workforce shows that the estates employ an average of 110 local and 90 foreign workers.

The average union coverage is 22.57%. In addition, it is interesting to note that all the 41 public estates that responded to this particular question constitute high union membership compared to only 19 private estates and the Chi-Square test is statistically significant in favor of public estates. It is also important to know the amount of wages the workers earn per month. A Two-Way ANOVA is used to test for the variation in wages by country of origin of workers and type of estates. The results show that as compared to public estates, private estates pay significantly higher wages to both local and foreign workers. Likewise, private estates significantly rank higher than public estates in terms of providing the medical and safety facilities to workers.

Results of Hypotheses Tests

The two hypotheses developed were evaluated using simple regression. A summary is presented in the following tables.

TABLE 1
HR PRACTICES AND INVOLUNTARY TURNOVER

Independent variables	Involuntary turnover (local workers)	Involuntary turnover (foreign workers)	Overall involuntary turnover
(R ²)	0.095	0.066	0.085
Standardized coefficients (β)			
Staffing process	-0.264*	n.s.	n.s.
Job description	n.s.	n.s.	n.s.

* = Significant at 5% level; n.s. = Results not significant
Only variables which appear significant in the regression analysis are presented.

In the case of involuntary turnover or discharge rates, results presented in Table 1 suggest that staffing process was negatively related to the discharge rate of local workers. The model explains 9.5% of the total variance in the involuntary turnover of local workers (R² = 9.5; β = -0.264; p-value < 0.05). However, staffing process and employee monitoring were not related to voluntary turnover. This result provides partial support for hypothesis 1.

TABLE 2
HR PRACTICES AND VOLUNTARY TURNOVER

Independent variables	Voluntary turnover (local workers)	Voluntary turnover (foreign workers)	Overall voluntary turnover
(R ²)	0.085	0.066	0.067
Standardized coefficients (β)			
Staffing process	n.s.	n.s.	n.s.
Job description	n.s.	0.318*	n.s.

* = Significant at 5% level; n.s. = Results not significant
Only variables which appear significant in the regression analysis are presented.

In the case of the second hypothesis, Table 2 shows that contrary to expectation, job description is positively related to the voluntary turnover of foreign workers ($\beta = 0.318$; $p\text{-value} < 0.05$) while staffing process is not related to voluntary turnover at all. Therefore, hypothesis 2 is not substantiated.

In sum, it is interesting to note that voluntary and involuntary turnover seem to be influenced by a different set of factors. While involuntary turnover seem to be negatively associated with staffing process, as hypothesized, other HR practices are not. We offer possible explanations in the next section.

DISCUSSION

The objective of this paper is to investigate the role of HR practices in the determination of voluntary and involuntary turnover in organizations. Results from the first hypothesis shows that only staffing process and employee monitoring were negatively related to involuntary turnover. This is consistent with previous study by Shaw et al. (1998). These researchers found that involuntary turnover is lower in organizations with effective staffing practices and good employee monitoring system through performance appraisal as a way to keep track of the contributions of each employee. As the results of the present study show, estate managers are well known in putting considerable efforts in the recruitment process especially with regards to foreign workers. Many estates recruit directly from the neighbouring countries instead of depending on local recruitment agencies (*Business Times*, March 15, 2000). It is possible these steps taken together help to get the suitable workers who are not likely to face termination; thus the negative relationship between staffing practices and involuntary turnover found in this study. Similarly, in the case of monitoring performance, estate workers are paid on daily and piece rate basis. This implies that the appraisal is clearly and closely linked to the reward system, poor performers were not likely to take up the jobs in the first place.

Similarly, no significant negative relationship was found between voluntary turnover and HR practices, against our expectation in the second hypothesis. On the contrary, we found a positive relationship between job description and voluntary turnover. One possible interpretation may be that with proper description of the kind of job the foreign workers were being recruited to do, their main concern at the time was to come to the country and not the kind of job they were going to do. There is evidence that many foreign workers use estates as a stepping stone to look for alternative jobs in other sectors like construction, manufacturing and services which offer better working conditions and higher wages (*New Straits Times*, September 4, 1994). Having joined the estates, these foreign workers are confronted with the realities of estate work and the way life

in general. Since the estates implement the incentive compensation system, it is likely that this actually encouraged poor performers to leave voluntarily.

In general terms, the findings of this study show that irrespective of the type of HR practices estates put in place, voluntary turnover would continue because there are alternative jobs in the economy due to the rapid economic growth taking place. Some further explanations are offered. Economists and personnel researchers have demonstrated the relationship between turnover rates and the aggregate levels of economic activity, employment levels and vacancy levels (March & Simons, 1958; Miller & Van der Merwe, 1982; Huling et al., 1983). The question is: How does the availability of alternative employment opportunities explain the turnover process in the oil palm estates? The Malaysian economy continues to expand due to increasing industrialization resulting in demand for labour in other sectors. It is likely that the availability of alternative jobs in other sectors is responsible for the voluntary turnover of the workforce especially the local workers. In other words, this can explain why the HR practices implemented in the estates could not reduce the volume of voluntary turnover reported by responding managers.

MANAGERIAL AND POLICY IMPLICATIONS

What might HR managers do when confronted with such a finding? As a practical strategy for combating involuntary turnover, managers should retain and reinforce the current staffing practices (recruitment, selection, orientation training, etc.) and uphold the existing style of performance measurement. These practices were found to be important in reducing involuntary turnover in organizations.

The second important strategy has to do with the need for reform in the salary system for plantation workers from the current practice of daily and piece-rate based on performance to a monthly-rated system. On the other hand, the estate workers represented by the NUPW feel that the workers will be better off if they were paid monthly. Meanwhile, the employers, MAPA, who favour the current practice of performance-based system seem to be worried whether a change to monthly system is justifiable and viable (*Business Times*, May 20, 2000).

Another policy issue is relocating production to labour abundant countries like Indonesia. The advantage to the local investors in palm-oil plantation business is obvious. There is an apparent though gradual decrease in land availability in Malaysia and the possibility of lower operational costs in other countries such as Indonesia. However, events of the last few years in Indonesia are issues of great concern due to the severe economic, political and social crises in the country.

This signals caution on the part of the Malaysian investors. An alternative option for relocation for Malaysian investors abroad is to explore other markets in Africa through technology transfer and technical co-operation. Malaysia, being the largest producer and exporter of palm-oil, can help countries that have suitable land, agro-climatic conditions and labour resources to grow and produce their own palm-oil. Many African countries like Nigeria, Cameroon and Gabon have started to expand areas under palm-oil cultivation. However, these countries face difficulties due to lack of experience and expertise in plantation management. This is a practical possibility that can help Malaysian palm-oil industry to address the serious limitations in terms of land and labour resources. In a visit to Cameroon and Gabon in 1997, The Minister for Primary Industries repeatedly emphasized the willingness of Malaysia to extend such assistance (*Business Times*, April 17 & 25, 1997).

One of the limitations of this study is that it concentrates on HR practices only to account for the variations in voluntary and involuntary turnover. As the results indicate, other factors like the economic conditions in the country that makes alternative jobs available are likely to enhance our understanding of the turnover phenomenon. The challenge for future research therefore is to investigate the role of alternative jobs in the determination of employee turnover.

REFERENCES

- Armknrecht, P. A., and Early, J. F. (1972). Quits in manufacturing: A study of their causes. *Monthly Labour Review*, 95, 31–37.
- Arthur, J. B. (1994). Effects of human resource systems on manufacturing performance and turnover. *Academy of Management Journal*, 37, 670–687.
- Bawa, M. A. (2000). *Human resource management practices and firm performance: An empirical study of Malaysian oil palm plantations*. Ph.D. thesis, Universiti Sains Malaysia, Pulau Pinang.
- Bawa, M. A., Jantan, M., and Ali, J. (2001). Human resource management practices in small, medium and large firms. *Malaysian Management Review*, 36(1), (June), 40–52.
- _____. (2000). The impact of strategic human resources management practices on productivity: The case of Malaysian oil palm industry. *Malaysian Management Journal*, 4(1), (June/December), 65–73.
- Business Times*, April 17, 1997, p. 15.

Business Times, May 20, 1998.

Business Times, April 17, 1997, p.15.

Business Times, April 25, 1997, p.15.

Business Times, May 20, 2000

Cronbach, L. J., and Meehl, P. E. (1955). Construct validity in psychological tests. *Psychological Bulletin*, 52, 281–301.

Delery, J. E., and Doty, D. H. (1996). Modes of theorizing in strategic human resource management: Tests of universalistic, contingency, and configurational perspectives. *Academy of Management Journal*, 39, 802–835.

Gruber, J., and Madrian, B. C. (1994). Health insurance and job mobility: The effects of public policy on job-lock. *Industrial and Labor Relations Review*, 48(1), 86–102.

Gupta, N., and Jenkins, G. D. Jr. (1991). Rethinking dysfunctional employee behaviors. *Human Resource Management Review*, 1, 39–59.

Hair, J. F., Anderson, R. E., Latham, R. L., and Black, W. C. (1995). *Multivariate data analysis with readings* (4th ed.). Singapore: Prentice-Hall International Inc.

Huling, C. L., Roznowski, M., and Hachiya, D. (1983). Alternative opportunities and withdrawal decisions: Empirical and theoretical discrepancies and integration. *Psychological Bulletin*, 97, 233–250.

Huselid, M. A. (1995). The impact of human resource management practices on turnover, productivity and corporate financial performance. *Academy of Management Journal*, 38, 635–672.

Huselid, M. A., Jackson, S. E., and Randall, R. S. (1997). Technical and strategic human resource management effectiveness as determinants of firm performance. *Academy of Management Journal*, 40(1), 171–188.

Lazear, E. P. (1986). Retirement from the labor force. In Ashenfelter, O., and Layard, R. (Eds.). *Handbook of labor economics*, volume 1. Amsterdam: North-Holland.

- Likert, R. L. (1967). *The human organization*. New York: McGraw-Hill Book Co.
- Madrian, B. C. (1994). Employment-based health insurance and job mobility: Is there evidence of job-lock? *Quarterly Journal of Economics*, *109*, (February), 27–51.
- Malayan Agricultural Producers Association. (1995). *Malayan Agricultural Producers Association and National Union of Plantation Workers field and other general employees fringe benefits agreement*. Kuala Lumpur: Malayan Agricultural Producers Association.
- Malaysia Agricultural Directory and Index, 1997/98. Selangor: Agrquest Sdn. Bhd.
- March, J. G., and Simons, H. A. (1958). *Organizations*. New York: Wiley.
- McEvoy, G. M., and Cascio, W. F. (1985). Strategies for reducing employee turnover: A meta-analysis. *Journal of Applied Psychology*, *70*, 342–353.
- Miller, S., and Van der Merwe, R. (1980). *Labour turnover and the economic climate*. University of Port Elizabeth: Department of Industrial and Organizational Psychology.
- _____. (1982). Consistency in inter-organizational labour turnover: A follow-up. *Journal of Occupational Psychology*, *55*, 185–189.
- Mobley, W. H. (1977). Intermediate linkages in the relationships between job satisfaction and employee turnover. *Journal of Applied Psychology*, *62*, 237–240.
- Mobley, W. H., Griffeth, R. W., Hand, H. H., and Meglino, B. M. (1979). Review and conceptual analysis of the employee turnover process. *Psychological Bulletin*, *86*, 493–522.
- Mowday, R. T., Porter, L. W., and Steers, R. M. (1982). *Employee-organization linkages: The psychology of commitment, absenteeism and turnover*. New York: Academic Press.
- Murphy, K. R., and Cleveland, J. N. (1991). *Performance appraisal: An organizational perspective*. Boston: Allyn & Bacon.
- New Straits Times*, September 4, 1994, p. 10.

- Norusis, M. J. (1999). *SPSS 9.0 guide to data analysis*. New Jersey: Prentice-Hall.
- Nunnally, J. C. (1978). *Psychometric theory* (2nd ed.). Singapore: McGraw-Hill.
- Peterson, R. A. (1994). A meta-analysis of Cronbach's coefficient alpha. *Journal of Consumer Research*, 21, (September), 381–391.
- Price, J. L. (1977). The measurement of turnover. *Industrial Relations Journal*, 6, 33–46.
- Saiyadain, M. S., and Ahmad, Z. A. (1997). *Human resource management in Malaysian oil palm estates*. Unpublished project report, Universiti Sains Malaysia, Pulau Pinang.
- Shaw, J. D., Delery, J. E., Jenkins, G. D. Jr., and Gupta, N. (1998). An organization-level analysis of voluntary and involuntary turnover. *Academy of Management Journal*, 41(5), 511–525.
- Schmidt, F. L., and Hunter, J. E. (1983). Individual differences in productivity: An empirical test of estimates derived from studies of selection procedure utility. *Journal of Applied Psychology*, 68, 407–414.
- Snell, S. A., and Dean, J. W. (1992). Integrated manufacturing and human resource management: A human capital perspective. *Academy of Management Journal*, 35(3), 467–470.