

The Moderating Effect of Working Environment on the Relationship Between Human Resource Management Practices and Employee Turnover Intention:

A Study of Tyre Manufacturing Industry in Sri Lanka

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Abstract

Employee turnover has been considered as major problem for most organizations, especially in the tyre manufacturing industry. Management of companies should minimize employee turnover through their better HRM practices. Therefore, this study attempted to identify to the relationship between HRM practices and employee turnover intention among employees in the tyre manufacturing industry in Sri Lanka. And also it identified the moderating effect of the working environment on the relationship between Human Resource Management (HRM) practices and turnover intention. The study was based on six hypotheses that were constructed to reveal whether performance appraisal, rewards, training and development and working environment significantly affect employee turnover intention. These three HRM practices and working environment were identified based on previous literature. Furthermore, this study was conducted among 278 employees who work in tyre production sections from three tyre manufacturing companies. Moreover, the study collected data using a structured questionnaire and analyzed through reliability analysis, descriptive analysis, correlation analysis and multiple regression analysis. Results of the analysis revealed that performance appraisal, rewards, training and development had a significant negative impact on employee turnover intention. Further, the working environment as a moderator significantly decreased the relationship between HRM practices and turnover intention.

Keywords: Employee Turnover Intention, Performance Appraisal, Rewards, Training and Development, Working Environment

1. INTRODUCTION

Organizations are seeking growth and successful progress because of the highly competitive nature in the business world. There is an increasing recognition that increases in global trade, facilitated by advancement in technology, communication and transportation began to bring the markets of the world into a greater competition (Samuel and Chipunza 2009). Economic globalization has therefore become more pronounced and the ability of an organization to compete in the global marketplace is increasingly tied to the quality of the human resources therein. Therefore, managing them without any disruptions is important. However, employee turnover has become one of the major issues faced by the tyre manufacturing industry in Sri Lanka. This has result negatively to the company's efficiency when skilled employees often leave the organization and the work population contains a high percentage of new employees. Further, high turnover would bring destruction to the business in the form of both direct and indirect costs. However, there is difference between turnover and turnover intention. Turnover is the actual action that employees had left the company and move to another company for new employment relationships (Price, 2001) and turnover intention is the behavior that employees thinking of leaving and terminate for the current employment relationship, but not the actual action to leave the current job (Cotton and Tuttle,1986). The actual turnover behavior has a strong and significant

positive relationship with turnover intentions (Samad, 2006).

Since it is practically impossible to examine all the factors that affect employee turnover intention, this study is only focused on three human resource management practices that affect employee turnover intention. The reason to choose HRM practices as the independent variables is that it covers most of the organization-related factors that can affect employee turnover intention. According to the social exchange theory (Blau 1964), proper training and development, compensation and performance appraisal organized by an organization should theoretically be able to enhance employee retention rates, as individuals and organizations enter into exchange relationships in which the provision of mutual benefits creates obligations to reciprocate (Raihan 2012). Moreover, the organizational work environment is an important factor which affects employee behavior and attitude. It comprises the physical, geographical location and the immediate surroundings of the workplace. Therefore, this study introduced the working environment as a moderator to identify any significant impact on the relationship between HRM practices and employee turnover intention.

Previous studies have not given careful consideration to HRM practices in the tyre manufacturing industry in Sri Lanka and connecting this to employees' turnover intention. Further, there are very few past researches which consider the working environment as a moderator

to measure the relationship between HRM practices and turnover intention. Therefore, the researcher decided to cover this gap through this scientific research.

The general objective of the study is to justify the association between HRM practices and turnover intention. The specific objectives of this study were;

- i. To investigate the relationship between performance appraisal and employee turnover intention in tyre manufacturing industry.
- ii. To investigate the relationship between rewards and employee turnover intention in tyre manufacturing industry.
- iii. To investigate the relationship between training and development and employee turnover intention in tyre manufacturing industry.
- iv. To investigate the moderating effect of working environment on the relationship between HRM practices and turnover intention.

Since employee turnover is costly to any organization, identifying well in advance the factors behind employees' intention to leave would help to adjust their HRM practices to reduce employee turnover rate. Further, this study would enable the industry to analyze the cost in terms of replacing employees, loss of productivity and deterioration of service quality. The study also add value to the researchers in the area of employee turnover. Scholars will find it important as it will increase the body of knowledge in this area.

Based on the literature reviewed, the researcher has developed conceptual framework for this study.

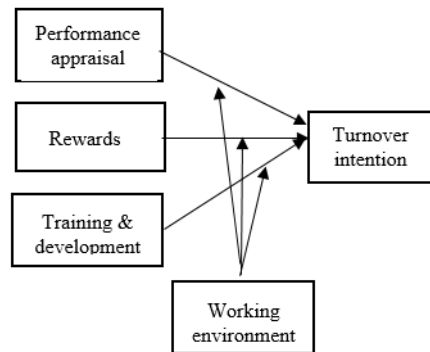


Figure 1. Conceptual Framework

Further, after observing the mix findings from prior studies the researcher proposed following hypotheses to test the relationships between independent, moderating and dependent variables.

H₀₁: There is a significant relationship between performance appraisal and turnover intention.

H₀₂: There is a significant relationship between rewards and turnover intention.

H₀₃: There is a significant relationship between training and development and turnover intention.

H₀₄: Working environment significantly moderate the relationship between performance appraisal and turnover intention.

H₀₅: Working environment does not significantly moderate the relationship between rewards and turnover intention.

H₀₆: Working environment does not significantly moderate the relationship

between training and development and turnover intention.

2. METHODS

The target population in this study was 1000 employees who work in tyre production departments in three tyre manufacturing companies in Sri Lanka namely Samson Rubber Industries (Pvt) Ltd, CEAT Kelani tyres (Pvt) Ltd and Global Rubber Industries (Pvt) Ltd. According to Krejcie & Morgan's (1970) table for determining sample size, 278 employees included as sample from the population (1000 Population, 0.95 Confidence Level). This study used a stratified random sampling technique. This technique was acceptable because it based on probability and ensured that all employees from the different strata were adequately represented. The stratum for this study was divided into three tyre manufacturing companies from the total population.

This study predominantly depended on both primary and secondary data. Secondary data were collected through books and reports of the HR departments of each company. Then, primary data were collected using a questionnaire. Through careful review of prior research, the researcher developed a specific set of questions to be included in the questionnaire. It contained closed-ended questions, where the respondents were required to answer all the questions. The questionnaire was divided into 3 sections where section 1 includes demographic details of respondents and section 2 includes all about employee turnover intention, selected HRM practices (performance

appraisal, rewards, Training & Development,) and working environment. Moreover, section 2 was measured by five-points Likert scale where one, two, three, four, and five representing strongly disagree, disagree, neutral, agree and strongly agree. Further, section 3 consisted of two open-ended questions where employees can express their opinion on other HRM activities and help the researcher to explore the study widely.

Though the researcher distributed 315 questionnaires, some questionnaires were uncompleted and some were not submitted back to the researcher. After withdrawing uncompleted questionnaires and non-given questionnaires finally researcher had to get only 281 questionnaires to create the data set for the purpose of analyzing. Accordingly, the response rate was 89.20% for distributed questionnaires of the study.

After data collection, the quantitative responses of the respondents are classified and coded for analysis. SPSS, 20.0 versions (Statistical Packages for Social Science) was used to analyze the data presented. Descriptive statistics were estimated for the various constructs and presented through frequency tables. Data consistency was checked using the Cronbach's alpha. Inferential data analysis was done by using the Chi-Square test, Spearman Correlation Coefficient and Regression analysis. The correlation was used to establish the direction of the relationship between the dependent and the independent variables. Moreover, Multiple regression analysis was used to determine the relationship between

the various HRM practices and employee turnover intention. Testing hypothesis using p-value was made because it gave the strength of the decision. Further, the significance level of 0.05 was suggested as it denotes that the results are at 95% confidence level.

3. RESULTS

Demographic data analysis

The demographic data of the sample showed that most of the respondents are in the age group between 26-35 years (42.4%) and fewer respondents are in the age group of 46-55 years (7.2%). In addition to that, 79.5% of respondents are male and only 20.5% are female. This indicates that majority of the employees in the tyre manufacturing industry are males and relatively young. Besides that, there are 54.7% unmarried respondents while other 45.3% of respondents are married. This happens maybe because the majority of respondents are still at a young age. From the education level aspect, 48.9% of majority respondents have educated up to G.C.E. Ordinary level and only 21.2% of respondents educated below to grade 11. Furthermore, 20.9% of respondents have service experience less than one year and 41.7% have experienced between 1-5 years. Only 13.3% of respondents have service experience of more than 10 years with their companies. Regarding the monthly salary aspect, the majority of respondents (52.9%) receive a monthly salary between Rs. 30,000-40,000 and only a few respondents (2.9%) receive monthly salary below to Rs. 20,000.

Reliability and Validity of the Study

To measure the reliability and validity in this study the researcher used "Cronbach's Alpha" separately for all the five variables.

Table 1. Reliability Statistics

Reliability Statistics		
Variable	Cronbach's Alpha	No. of Items
Independent variables		
PA	.901	05
Rewards	.906	05
T & D	.893	05
Moderating variable		
WE	.907	05
Dependent variable		
TI	.877	05

The value of Cronbach's Alpha should be exceeding 0.700 if the drivers are reliable. According to Table 1, Cronbach's Alpha for performance appraisal (0.901), rewards (0.906) and working environment (0.907) shown very high level of relative internal consistency and reliability. Furthermore, Cronbach's Alpha for turnover intention (0.877), training and development (0.893) shown a high level of relative internal consistency and reliability at the tyre manufacturing industry in Sri Lanka. Out of five variables rewards have the highest Cronbach's Alpha value and turnover intention have the lowest.

Chi- Square analysis

Table 2. Chi - square test

Test Statistics			
	Chi-Square	df	Asymp. Sig.
PA	260.835 ^a	17	.000
Rewards	66.453 ^b	12	.000
T & D	198.029 ^a	17	.000
WE	338.273 ^a	17	.000
TI	90.806 ^a	17	.000
a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 15.4.			
b. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 21.4.			

The table 2 shows all individual drivers such as performance appraisal, rewards, training & development, working environment, employee turnover intention have the p-value (Asymp. Sig.) less than the chosen significance level $\alpha = 0.05$. Therefore, the null hypothesis which states there is no significant difference between expected frequencies and observed frequencies is rejected and alternative hypothesis is accepted.

Correlational Analysis

To find the individual drivers' sign of the effect which is positive or negative to the employee turnover intention, researcher has used correlation analysis with Spearman Correlation Coefficient.

Table 3. Correlation Test Results

Correlations			TI
Spearman's rho	TI	Correlation Coefficient	1.000

		Sig. (2-tailed)	
	N		278
PA	Correlation Coefficient		.691**
	Sig. (2-tailed)		.000
	N		278
Rewards	Correlation Coefficient		.811**
	Sig. (2-tailed)		.000
	N		278
T&D	Correlation Coefficient		.741**
	Sig. (2-tailed)		.000
	N		278
PA x WE	Correlation Coefficient		.677**
	Sig. (2-tailed)		.000
	N		278
Rewards x WE	Correlation Coefficient		.788**
	Sig. (2-tailed)		.000
	N		278
T&D x WE	Correlation Coefficient		.713**
	Sig. (2-tailed)		.000
	N		278
**. Correlation is significant at the 0.01 level (2-tailed).			

The Correlation analysis results confirmed that performance appraisal, rewards, training & development, performance appraisal x working environment, rewards x working environment and training & development x working environment are negatively correlated with employee turnover intention in the tyre manufacturing industry in Sri Lanka at 05.00% level of significance.

Therefore, developed hypotheses can interpret as follows.

Performance appraisal has -0.691 correlation value with turnover intention and the relationship is significant because the p-value - 0.00 which is less than 0.05. As a result, the null hypothesis is rejected while the alternative hypothesis is accepted. Moreover, rewards have -0.811 correlation value with turnover intention and the relationship is significant because the p-value - 0.00 which is less than 0.05. As a result, the null hypothesis is rejected while the alternative hypothesis is accepted. Similarly, training and development has -0.741 correlation value with turnover intention and the relationship is significant because the p-value - 0.00 which is less than 0.05. As a result, the null hypothesis is rejected while the alternative hypothesis is accepted. Further, working environment as a moderating variable has reduced the correlation coefficient values of all three independent variables (PA- -0.667, Rewards- -0.788 & T&D- -0.713) and the p-values are less than 0.05. That means working environment significantly moderates the relationship between these three HRM practices and employee turnover intention. Therefore, all three null hypotheses under moderating effect are rejected while the alternative hypotheses are accepted.

Multiple Regression Analysis

Regression analysis includes many techniques to analyses the relationship between the dependent variable and independent variables.

Table 4. Model Summary

Model Summary ^b				
Model s	R	R ²	Adjusted R ²	Std. Error
1	.870 ^a	.757	.754	.48285
2	.801 ^a	.641	.637	.58638

a. Predictors: (Constant), Training & Development, Rewards, Performance Appraisal
 b. Dependent Variable: Turnover Intention

Table 5. ANOVA table

ANOVA ^a						
Models		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	198.622	3	66.207	283.980	.000 ^b
	Residual	63.881	274	.233		
	Total	262.502	277			
2	Regression	168.291	3	56.097	163.150	.000 ^b
	Residual	94.211	274	.344		
	Total	262.502	277			

a. Dependent Variable: Turnover Intention
 b. Predictors: (Constant), Training & Development, Rewards, Performance Appraisal

According to the summary of model 1, the selected independent variables are explained the total variation of the employee turnover intention by .754 which is 75.4 as a percentage and the overall model was significant due to P-value of ANOVA table (0.000) is less than 0.05. Further, summary of model 2 shows the selected

independent variables are explained the total variation of the employee turnover intention by .637 which is 63.7 as a percentage and the overall model was significant due to P-value of ANOVA table (0.000) is less than 0.05. This difference between adjusted R² values (.117) represent the moderating effect of working environment.

Table 6. Regression Coefficient

Coefficients ^a						
Model		Unstandardized Coefficients		Std. Coefficients	t	Sig.
		B	Std. Error			
1	(Constant)	7.257	.149		48.804	.000
	PA	-.119	.115	-.121	1.040	.303
	Rewards	-.849	.162	-.529	13.754	.000
	T & D	-.555	.118	-.551	4.711	.000
2	(Constant)	5.080	.184		60.231	.000
	PA x WE	-.676	.426	-.323	4.760	.000
	Rewards x WE	-.199	.332	-.839	6.214	.000
	T & D x WE	-.669	.419	-.317	4.758	.000

a. Dependent Variable: Turnover Intention

According to the model 1 in the regression coefficients table the independent variables such as performance appraisal (β - (-0.119), Sig. / P Value – 0.003 < 05.00%), rewards (β - (-0.849), Sig. / P Value – 0.000 < 05.00%) and training & development (β - (-0.555), Sig. / P Value – 0.000 < 05.00%) has a significant impact on employee turnover intention at tyre manufacturing industry in Sri Lanka at 5% level of significance. Therefore, the estimated model for forecast the employee turnover intention without the effect of the working environment (Moderating Variable) can be shown as below.

$$Y_i = 7.257 - 0.119 X_1 - 0.849 X_2 - 0.555 X_3 + \epsilon$$

Figure 2. Estimated Forecasted Model

According to the model 2 in regression coefficient table the independent variables with moderator such as performance appraisal x working environment (β – (-0.676), Sig. / P Value – 0.000 < 05.00%), rewards x working environment (β – (-0.199), Sig. / P Value – 0.000 < 05.00%) and training & development x working environment (β – (-0.669), Sig. / P Value – 0.000 < 05.00%) has a significant impact on employee turnover intention at tyre manufacturing industry in Sri Lanka at 5% level of significance.

Figure 3 and 4 shows the estimated model for forecast the employee turnover intention with the effect of the working environment (Moderating Variable) and the distribution curve of employee turnover with the effect of the working environment respectively.

$$Y_i = 5.080 - 0.676 X_1 - 0.199 X_2 - 0.669 X_3 + \varepsilon$$

Figure 3. Estimated Forecasted Model (with the effect of moderator variable)

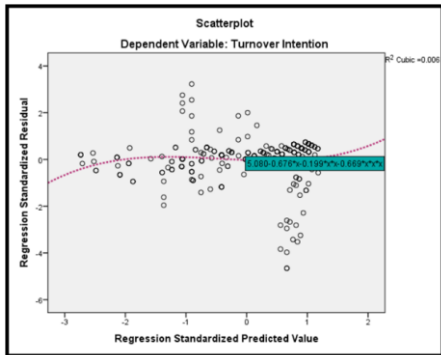


Figure 4. Distribution Curve of Employee Turnover Intention with the Effect of Working Environment

4. DISCUSSION

The findings of this study revealed a significant negative relationship between performance appraisal and employee turnover intention. This emphasis employees who feel their contribution is not effectively appraised and recognized have no interest to continue their job and will consider leaving the organization. Furthermore, researchers in the past have indicated similar relationships (Vignaswaran, 2008) that the satisfaction on performance appraisal system will affect organizational commitment and employee turnover intention.

Moreover, findings of this study revealed a significant negative relationship between rewards and employee turnover intention. This emphasis that when an organizations provide proper rewards and care about

the employees, it will make the employees stay for longer period of time otherwise, employees will join to other organization which provide more attractive rewards to them. Therefore, organization should give better rewards such as salary, medical and insurance facilities, recognition to retain employees. Similarly, past research has indicated that the failure to be rewarded as expected may lead to frustration and make them less motivate and eventually will quite the job (Maicibi, 2003).

The findings of this study also revealed a significant negative relationship between training and development and employee turnover intention. According to Connie et. al, (2009), training and development is an important part of human resources variable which can give an important impact of employees' turnover intention. Therefore, organizations need to provide adequate qualitative and quantitative training and development programs for employees to enhance their professional and personal life and reduce employee turnover rate.

As per the findings, working environment moderates the relationship between HRM practices and employee turnover intention. It revealed even though a company has poor HRM practices positive working environment can decrease the employee intention to turnover to some extent. Therefore, companies should create conducive working environment to minimize the employee turnover. This also in line with findings of Ahmad, Bibi, and Majid. (2013) as working environment

moderates the relationship between supervisory support, training and development and employee retention.

5. CONCLUSION

The general objective of the study was to identify the HRM practices that affect employees' turnover intention in the tyre manufacturing industry of Sri Lanka. The literature presented indicates results of previous studies on the different HRM practices that lead to employee turnover intention. The study revealed that there is a highly considerable level of turnover intention within employees in the tyre manufacturing industry which significantly influenced by all the selected HRM practices. The second objective of the study is to understand how the working environment moderates the relationship between HRM practices and turnover intention. The data analyzed confirmed that there is a moderating effect of working environment to this relationship.

Therefore, the researcher provides some recommendations to reduce turnover rates in companies. The first recommendation that the researcher wants to give is, primarily develop a well-organized employee retention strategy which follows updated HRM practices as appropriate and consider the various factors that employees in the tyre manufacturing industry would value. In doing this strategy, the organization can find the other major factors that make the employees think of quitting. Ultimately that can help to reduce the costs related to employee turnover. In order to retain employees, companies should provide training and career development opportunities as a regular practice. This training and

development programmes should be able to enable employees to improve their skills and capabilities as well as developed within their job.

Further, as a better HRM practice companies should provide realistic job information about task, role, working conditions, company policies and procedures when recruiting and selecting new employees and update company information to existing employees. This would increase the employee ability to work with an understanding of the organization and reduce frustration, demotivation to work within them. Then the companies can reduce the rate of employee turnover as well as the cost relating to employee turnover.

Next recommendation is to create risk-free physical working environment management should more concerned about providing personal protective equipment (safety shoes, safety helmets, Safety glasses) and should be made aware of the importance of it. That may feel employees as they are value to company and minimize their intention to turnover. Finally, setting collective goals rather than individual goals, conducting team building activities, creating opportunities for an open communication system can increase the level of employee interaction, efficiency as well as decrease the turnover intention within the workplace.

The study also has some limitations. It only considered the employees who work in tyre production departments in the companies as respondents. Thus, the findings may be generalized by selecting employees in other departments such as inspection,

quality assurance, maintenance as respondents in future research. Further, some respondents were not willing to participate in the survey because survey questions are quite sensitive to them. Since this research is only considered about three HRM practices the researcher encourages future researchers to study the on other HRM practices such as recruitment and selection, empowerment and participation, employee relations to identify their influence to employee turnover intention.

REFERENCES

- Ahmad, A., Bibi, P and Majid. (2013). Impact of training and development and supervisors support on employee retention in academic institutions in Pakistan: the moderating role of the work environment. *Gadjah Mada International Journal of Business Vol. 20, No. 1 (January-April): 113-131*
- Blau, P. M. (1964). *Exchange and Power in Social Life*. New York, NY: Wiley
- Connie, Z., & David L. (2009). Organizational determinants of employee turnover for multinational companies in Asia, RMIT University, Australia, Nottingham Trent University, U.K. Business Media llc
- Cotton, J. L., & Tuttle, J. M. (1986). Employee turnover: A meta-analysis and review with implications for research. *The Academy of Management Review, Vol 11(1), PP 55-70*
- Krejcie, R.V & Morgan, D.W (1970). Determining sample size for research activity. *Educational & Psychological Measurement, 30, 607-610*
- Maicibi, N. A. (2003). Pertinent issues in employee management. *Kampala MPK Graphics (U) Ltd*
- Price, J.L. (2001). Reflections on the determinants of voluntary turnover. *International Journal of Manpower, 22, 600-624*.
- Raihan J.M.H (2012). Mediating effects of organizational commitment and perceived organizational support on HRM practices and turnover intention: A study of private universities in Bangladesh (Doctoral dissertation, University Utara Malaysia).
- Samad, S. (2006). The contribution of demographic variables: job characteristics and job satisfaction on turnover intentions”, *Journal of International Management Studies, Vol. 1, No. 1, 2-12*.
- Samuel, M., Chipunza, C. (2009). Employee retention and turnover: Using motivational variables as a panacea. *African Journal of Business Management, 3(8), 410-415*.
- Vignaswaran, R. (2008). The Relationship between Performance Appraisal Satisfaction and Employee Outcomes: A Study in Malaysia. *Unpublished master's thesis, University of Malaya*