

# Major Determinants of Intend to Leave among Operational Level Employees in a Manufacturing Facility

V. Sivalogathan<sup>1</sup> and N.A. Mudannayake<sup>2</sup>

<sup>1</sup>Department of Management Studies, The Open University of Sri Lanka, Nugegoda, Sri Lanka

<sup>2</sup>Ceylon Electricity Board, Sri Lanka

\*Corresponding author: Email: vsiva@ou.ac.lk

## 1 INTRODUCTION

Research focused on “Intent to Leave” (IL) among operational level employees (factory supervisors (superintendents), skilled and un-skilled labour) at the main factory facility of Nemsuji (Pvt) Ltd located in Nittambuwa, Western province, Sri Lanka. The production facility mainly

focuses on the manufacturing of PVC pipes and fittings, polythene films, agro hoses, water tanks, importation and wholesale distribution of power tools, water pumps and PVC plumbing accessories and motors. The employment structure is given in Figure 1.

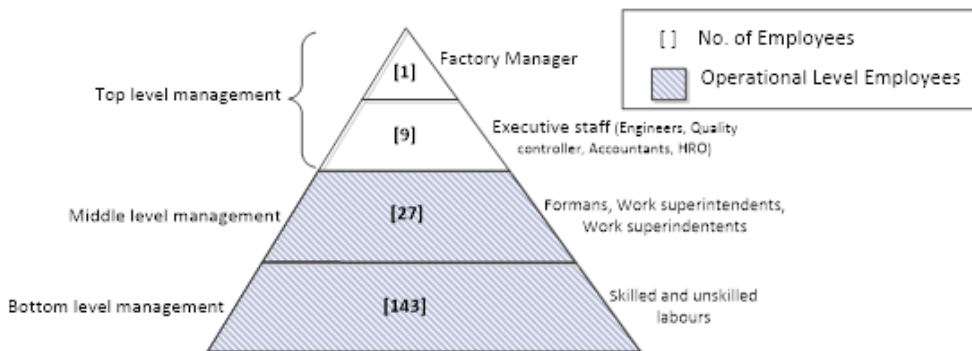


Figure 1: Company's employment pyramid

### 1.1 Problem Statement

Company observed that most of their skilled and experienced work-hands frequently leave the company. The severity of the problem and root causes are yet to be identified.

### 1.2 Research Objectives

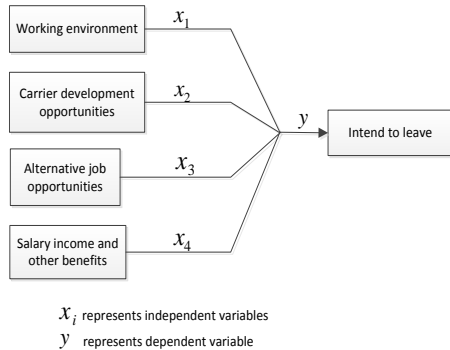
Identify the major determinants of employees' IL the company. Evaluate each determinant both in qualitative and

quantitative manner and prepare recommendations for corrective measures.

## 2 METHODOLOGY

The research adopts two research strategies, case study and survey method, (Bhattacharyya, D.K., 2003). During the inception, the company's Human Resource (HR) and production data were analysed to track possible correlations

(Catherine, (2002). Possible initiatives (internal and external) of IL based on a rigorous literature survey was then listed out (Branham, 2005; Campbell *et al.*, 2012; Kirschenbaum and Weisberg, 2002; Armstrong, 2006; Mudannayake, 2017). The most critical determinants for the case study were selected from the list based on primary and secondary data that was gathered as well as findings from two interviews, one with top and middle management and the second with the target group. As a result, four determinants were identified as critical and the conceptual framework that was then formulated is given in Figure 02 (Catherine, 2002).



**Figure 2:** Conceptual framework

Researchers were personally involved in all data gathering activities and educated the target group on survey objectives so as to increase the reliability of results and maximize participation (Catherine, 2002). A structured, unbiased questionnaire was prepared based on these critical factors. The questionnaire consisted of three parts (Krishnaswami and Ranganatham 2007). The first part represented the demographic data. Second part was to collect feedback data for five variables (one dependent and four independent variables).

The third part focused on the general feeling of respondents on IL. Dependent and independent variables were operationalized using “Five Point Likert Scale” range from, ‘Strongly Disagree’ to ‘Strongly Agree’. The unit of analysis was

the individuals at operational level. Completed questionnaires were then used for a pilot survey (Catherine, 2002). Based on the respondents’ feedback to the pilot survey, the original questionnaire was corrected and modified. The refined questionnaire was used for the main survey. Owing to time limitations and resource scarcity, a representative stratified random sampling was used. The sample consisted of proportional allocation for each department representing size of strata (Krishnaswami and Ranganatham 2007). As depicted in Figure 01, the population was 170 and the calculated sample at 95% confidence level was 118 [22]. Null hypothesis of the hypothesis test prepared as,

**H1<sub>0</sub>:** Significant relationship between IL and Working Environment (WE) exists

**H2<sub>0</sub>:** Significant relationship between IL and Carrier Development Opportunities (CD) exists

**H3<sub>0</sub>:** Significant relationship between IL and Alternative Job Opportunities (AJ) exists

**H4<sub>0</sub>:** Significant relationship between IL and Salary Income and Other Benefits (SI) exists

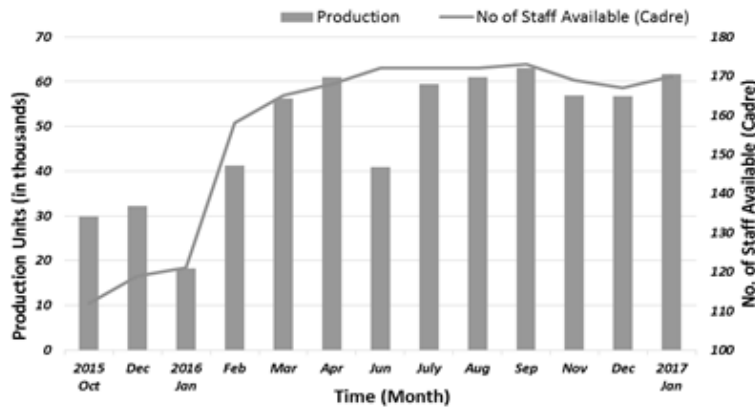
Then, the relationship between each of the independent variables to the dependent variables was evaluated using the significance of the correlation. In addition, Cronbach’s Alpha reliability analysis conducted for each set of data (Glien and Glien, 2003). Additionally, linear regression analysis conducted and calculated for the best-fit lines. Finally, multiple regression was conducted to investigate the composite effect of each independent variables to the dependent variable (Aiken and West, 1991). Two software programs, MS Excel and IBM SPSS version 22 were extensively used for the analysis work (Field, 2009; IBM Corp., 2011).



### 3 RESULTS

The Pearson correlation between the staff availability (Cadre) and the production

yield was found to be as high as 0.943 and graphical representation is given in Figure 03 [23].



**Figure 3:** Relationship between production and staff

The main survey received a 100% response rate. According to the results received under part – 1 of the main survey, the majority of work force were males (92%) and nearly 96% of respondents were either young or early matured. The majority of respondents were married (58%) and most of employees were found to have less than 1 year of service. About 80% of employees were educated up to A/L and 78% possessed some kind of vocational or professional qualification. In addition, about 59% had previous work experience (Mudannayake, 2017). The reliability test for each set of variables ranged from 0.7 to

0.9 and the summary of results is given in Table 01. SPSS results of correlation and linear regression (part 2 of the survey) for each independent variable against the dependent variable are shown in Table 02. Coefficient indices of variables for multiple regression are given in Table 03. Multiple regression equation was  $IL = 4.501 - 0.363WE - 0.113CD + 0.191AJ - 0.241SI$  and the  $R^2$  value found 0.587. The findings from part – 3 of the survey revealed the order of the critical reasons for IL as WE, SI, AJ and CD. About 2.5% of respondents found, no IL and about 25% confirmed the IL.

**Table 1:** Cronbach’s Alpha test results

Variable	Items	Cronbach’s Alpha	Remarks
Working Environment (WE)	Q1.1 – Q1.6	0.871	Very Good
Carrier Development Opportunities (CD)	Q2.1 – Q2.6	0.794	Good
Alternative Job Opportunities (AJ)	Q3.1 – Q3.6	0.906	Excellent
Salary Income and Other Benefits (SI)	Q4.1 – Q4.6	0.846	Very Good
Intend to Leave (IL)	Q5.1 – Q5.6	0.704	Good

**Table 2:** Summary of Correlation and Linear Regression analysis

Independent variable	Correlation	R <sup>2</sup> value	Sig. (2-tailed)	Linear Regression Line
Work Environment (WE)	-0.669**	0.448	0.000	IL = 4.763 – 0.591WE
Carrier Development opportunities (CD)	-0.406**	0.165	0.000	IL = 4.107 – 0.334CD
Alternative job opportunities (AJ)	0.508**	0.258	0.000	IL = 1.999 + 0.384AJ
Salary income and other benefits (SI)	-0.542**	0.294	0.000	IL = 4.598 – 0.558SI

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

**Table 3:** Coefficient indices of variables for the Multiple Regression

Model	Unstandardized Coefficients		Standardized Coefficients	t – value	Sig.
	B	Std. Error	Beta		
Constant	4.501	0.308		14.599	0.000
WE	-0.363	0.066	-0.411	-5.536	0.000
CD	-0.113	0.054	-0.138	-2.106	0.037
AJ	0.191	0.050	0.252	3.808	0.000
SI	-0.241	0.072	-0.235	-3.347	0.001

## 4 DISCUSSION

As depicted in Figure 02, staff availability of the company had a high correlation (94.3%) with the production yield. This implies a high turnover rate (initiated mainly by IL) which will severely affect the production yield of the company and highlights the usefulness of the research. According to Table 01, all grouped questions ranged from good to excellent and therefore data gathered can be considered to be significantly reliable and consistent. It is worth emphasising the advantage of using a pilot survey before commencing a social survey (Krishnaswami and Ranganatham 2007). A detailed investigation of demographic survey results depicted that the majority of young and early mature aged male employees declare their IL. This

demographic data represents a typical manufacturing environment of this nature in the Sri Lankan context [11]. However, some deviations were observed from experiences elsewhere (Loch and Stephens 2004; Foon *et al.*, 2000)

SPSS analysis indicated a strong negative relationship for independent variables WE, SI and CD against IL. Results interpret poor WE, low SI and less CD as leading to an increase in the IL. A strong positive relationship between the AJ against IL indicates that the higher the AJ, the higher the risk of IL. Therefore, all null hypothesis H1<sub>0</sub>, H2<sub>0</sub>, H3<sub>0</sub> and H4<sub>0</sub> are accepted and all respective alternative hypothesis rejected. Based on R<sup>2</sup> values the ascending order of critical determinants was found to be WE, SI, AJ



and CD. Multiple regression study confirmed a strong dependency of composite effect of all independent variables with 58.7% representation of IL. In summary, the most critical determinant was the poor WE. SI was ranked second. AJ and CD took the third and fourth places respectively. However, all variables represent a significant correlation to IL. According to the literature, all selected determinants play a significant role in similar case studies (Hissom, 2009; Arms, 2010). Remedial action should incorporate physical measures as well as psychological approaches (Firth *et al.* 2004; Mobley *et al.*, 2001). WE, SI and CD are external factors and relatively easier to address. AJ is an external factor and therefore a SWOT analysis may need to be conducted before launching corrective actions. Ample research is available for managing and controlling IL pertaining to the four determinants (David, 2008); James and Mathew, 2012; Steel, *et al.*, 2001). Drive factors for worker motivation by addressing WE, SI and CD properly are one of most effective methods to enhance effective worker participation (Herzberg, 1959).

In the later part of the questionnaire, respondents were allowed to rank the four determinants based on the impact severity on IL. The order was found to be WE, SI AJ and CD in the ascending order. This perfectly matched the results from part -2 of the questionnaire. The research also investigated the respondents' general feeling on IL. Results indicate that the majority (about 70%) are still in a floating state but more biased to IL. This a clear indication that company still has the opportunity to retain its majority employees through prompt and proper remedial actions.

## 5 CONCLUSIONS AND RECOMMENDATIONS

The research concluded that employee IL has a severely impact on production yield.

Short term and long-term measures are required to uplift the WE, which is the most critical root cause to IL. The research recommends conducting a detailed research on methods to improve the present WE and also on SI with a second priority, in general. Consideration of method improvements for AJ and CD was also found to be significant. The research concludes that proper remedial actions (by incorporating them in strategic and operational plans of the company) will help to reduce the employee IL and eventually boost the level of productivity.

## REFERENCES

- Aiken, L.S., West, S.G. (1991). *Multiple Regression: Testing and Interpreting Interactions*, Newbury park, Sage
- Arms, D. (2010). *How to Retain Your Employees*, Strategic Finance, Computers and Applied Sciences Complete, EBSCOhost
- Armstrong, Michael (2006). *A Handbook of Human Resource Management Practice*, 10<sup>th</sup> Edition, Cambridge University press
- Bhattacharyya, D.K. (2003). *Research Methodology*, New Delhi: Excel Books
- Blau, M., Francine, D., Lawrence, M. Kahn (1981). *Race And Sex Differences In Quits By Young Workers*, Industrial and Labor Relations Review
- Branham, L. (2005). *The 7 Hidden Reasons Employees Leave*, American Management Association, New York
- Campbell, B., Ganco, M., Franco, A., Agarwal, R. (2012). *Who Leaves, Where to, and Why Worry? Employee Mobility, Entrepreneurship and Effects on Source Firm Performance*, Strategic Management Journal, Business Source Complete, EBSCOhost
- Catherine, (2002). *Practical Research Methods: A User-friendly Guide to Mastering Research*, How to Books Ltd, UK
- Clarence Loch, Alex Stephens (2004). *Employee Retention, Labor Turnover and Knowledge Transfer, , Case Studies form the Canadian*



- Plastic Sector, Canadian Labor and Business Center
- David, G. (2008). *Retaining Talent: A Guide to Analyzing and Managing Employee Turnover*, SHRM Foundation's Effective Practice Guidelines Series, USA
- Department of Census and Statistics (2016), *Sri Lanka Labour Force Survey 3<sup>rd</sup> Quarter*, Sri Lanka Labour Force Statistics Quarterly Bulletin, Ministry of National Policy and Economic Affairs, SL
- Field, A. (2009). *Discovering Statistics using SPSS*, 3<sup>rd</sup> edition, Sage publications Ltd, London
- Firth, L., Meller, D.J., Moore, K.A., Loquest, C. (2004). *How Can Managers Reduce Employee Intention to Quit?*, Journal of Psychology
- Glien, J.A., Glien, R.R. (2003). *Calculating, Interpreting and Reporting Cronbach's Alpha Reliability Coefficient for Likert-type Scales*, Mid-West Research
- Herzberg, F., Mausuer, B., Snyderman, B.B. (1959). *The Motivation to Work*, John Willy and Sons, New York
- Hissom, Amy (2009). *Human Resource Management: Understanding and Controlling Employee Turnover*, Kent University
- IBM Corp. (2011). *IBM SPSS Statistics 20 Brief Guide*
- James, L. Mathew, L. (2012). *Employee Retention Strategies*, SCMS Journal of Indian Management
- Kirschenbaum, A., Weisberg, J. (2002). *Employee Turnover Intentions and Job Destination Choices*, Journal of organizational behaviour
- Krishnaswami, O.R., Ranganatham, M. (2007). *Methodology of Research in Social Sciences*, 2<sup>nd</sup> Edition, Himalaya Publishing House, Mumbai
- Mobley, W.H., Griffeth, R.W., Hand, H.H., Meglino, B.M. (2001). *Review and Conceptual Analysis of the Employee Turnover Process*, Psychological Bulletin
- Mudannayake, N.A. (2017). *Identification of Major Determinants of Intend to Leave in Operational Level Employees at Nemsuji (Pvt) Ltd* (Unpublished Master's thesis). IGNOU, India
- Namsaka, D., Poipoi, M., Laura, C. (2013). *Effects of Staff Turnover on the Employee Performance of Work at Masinde Muliro University of Science and Technology*, International Journal of Human Resource Studies, ISSN 2162-3058
- Perez, M. (2008). *Turnover Intent*, Dissertation, University of Zurich
- Sok Foon, Y., CheeLeng, L. and Osman, S. (2000). *An Exploratory Study on Turnover Intention among Private Sector Employees*, International Journal of Business and Management
- Steel, R.P., Griffeth, R.W., Hora, P.N. (2002). *Practical Retention Policy for the Practical Manager*, Academy of Management Executives

