

[14]  
**The Impact of Safety and Health on Job Satisfaction in Selected Branches  
of Utility Service Supply Organization in Western Province North in Sri  
Lanka**

*Kularathna, W.K.H.U. and Perera, G.D.N.*

---

**Abstract**

The main focus of this study is on the impact of safety and health on job satisfaction in selected branches of Utility Service Supply Organization in Western Province North. The research problem for the study is to identify, 'how safety and health impact on job satisfaction among field employees in selected branches of Utility Service Supply Organization in Western province north?' The universal sampling method was used to collect data from 116 field employees in Utility Supply Organization in Western province north with a structured questionnaire indicating the statements of safety and health as well as job satisfaction with 5 points Likert Scale. Data thus collected were subject to analysis using univariate, correlation and regression analysis with the SPSS (16.0 Versions). It was found that there was a positive impact of safety and health on job satisfaction among field employees in selected branches of Utility Service Supply Organization in Western province north. The results of the simple regression analysis showed that the safety and health have ability to predict the variance of job satisfaction by nearly 46.6%. It is concluded that there is a positive impact of safety and health on job satisfaction of field employees. If the safety and health in selected branches of Utility Service Supply Organization is further increased, the job satisfaction among field employees could be further enhanced.

**Keywords:** Field Employees, Safety and Health, Job Satisfaction

---

**Introduction**

Human Resource Management (HRM) is one of the most significant functions in any organization (Opatha 2009). As the success of an organization depends to a great extent on human resources, managing the human resource is essentially the most important and challenging task in an organization. Managers use different aspects of HRM to manage human resource and those functions are namely; job analysis, human resource planning, recruitment, selection, induction, training and development, performance evaluation, pay management, welfare management, health and safety, etc (Opatha 2009). Among these, Safety and Health (SH) function plays a crucial role in organizational success as it has direct and indirect effects on job satisfaction of the employees (Opatha 2009).

As a result, SH has now been a new functional sub system of the organization. The role of health and safety representatives and the importance of training in support of their activities are the areas that are relatively neglected both in the academic and professional literature.

Many researches (Bernadin 2007; Flippo 1984; Saleemi 2009), consider SH exclusively relies on physical or tangible resources. Some researches argue that organizations require an integrated approach to technology, people and organization in terms of safety (Wilson-Donnelly et al. 2005). SH is generally defined as the science of the anticipation, recognition, evaluation and control of hazards arising in or from the work place that could impair the health and well-being of workers in a context in which the possible impact on the surrounding communities and the general environment are taken into account (Benjamin 2008). A healthy employee has the physical, mental and emotional well-being that enables him/her to perform tasks, duties and responsibilities of the job efficiently and effectively (Opatha 2010). Further, safety management refers to visible practices and measures taken by an organization to give the feeling of security to employees (Mitchison & Papadakis 1999). According to International Labour Organization (ILO)/World Health Organization (WHO) [11], health factor should be of the promotion and maintenance of the highest degree of physical, mental and social well-being of workers in all occupation, prevention of departures from work caused by their working conditions, the protection of workers from risk and the placing and maintenance of the worker in an occupational environment adapted to his physiological and psychological capabilities (1995). In similar study, Sherry (1992) has identified five major factors related to potential causes of accidents, i.e. psychological, environmental, ergonomics, physical and stress. Kelloway et al. (2005), defines “healthy workplace”, as the ways in which work is associated with mental health and job satisfaction.

Some theorists view job satisfaction as being the positive emotional reactions and attitudes an individual has towards their job (Oshagbemi 1999). Others have viewed it as a bi-dimensional construct consisting of intrinsic and extrinsic satisfaction dimensions (Warr et al. 1979). Job satisfaction shows how much and employee likes his work as well as the level of his pre occupation with work (Bakotic & Babic 2013). Generally it can be stated that job satisfaction is a sense of comfort and positive experience that an employee has related to his job. Hence, this study analyzes how health and safety impact towards the job satisfaction among field employees in selected branches of Ceylon Electricity Board in Western Province North.

### **Problem Background and Problem of the Study**

Robin and Walker (2000) have explained that safety and health will provide a sense of security as well as job satisfaction to employees. Accidents could be avoided for the employees in an organization to be satisfied with the security and safety in their workplace (Mathis & Jackson 2003). In addition to preventing the occurrence of accidents in the workplace, health and safety also increase the employee job satisfaction.

In today's context, employment conditions have become worse as a result of insecure and unstable workplace because of that decline in the level of job satisfaction over the last decades (Crampton & Hodge 2008). The poor health and safety practices in the workplace greatly contribute for the leaving of employees or a shortage in the workforce similar to the low level of job satisfaction (Omusulah 2013).

When there is SH at a satisfactory level, it increases the job satisfaction level of the employees. This is reflected in the statement that the company's SH policy is an investment in human resources, not only with regard to the workplace physical safety but also because it could also improve job satisfaction (Huang et al. 2004). A good health and safety program fosters a sense of security and comfort and increase job satisfaction (Ria et al. 2012).

In literature there are mostly reported studies carried out in Western Europe specially in The United State of America (USA) and Australia. But in Sri Lanka there are fewer amounts of researches (Damayanthi et al. 2014; Jagodaarachchi 2006) on that area. And also those researches are related to the industries in the apparel sector. Therefore, with the intention of minimizing the prevailing gap researcher has decided to conduct a study based on field employees in Utility Service Supply Organization in Western Province North. There are several reasons behind this selection. Main reason is that there is a high SH risk and these are high complex industries, nuclear, chemical, oil and gas-related industries, for example. Further, the establishment of new application systems of safety and health evaluation within SH management systems is a relatively recent phenomena. And also, the importance of safety and health issues of the employees in Utility Service Supply Organization is a critical factor. Electricity supply in the country is also under the Utility Service Supply Organization (USSO) and there is a monopoly within industry as they provide technical, engineering services all over the country.

It is reported that there has been a large number of accidents in working sites (Annual Accident Report 2010). Rather than deadly accidents, there are heavy accidents, reportable accidents, non-reportable accidents etc. Annually there are many technical accidents: deaths, fully disabled, and also temporary disabled in USSO.

Taking protective measures of safety and health both for employee and employer will produce many benefits. International perception is that the efficiency, effectiveness, and quality of the product or service depend upon the safety and health within the workplace. If an organization has poor safety and health culture, it will definitely cause negative effects on the profitability of the organization. Because of that, most of the people in present world concern about safety and health. Hence, it is emphasized that both employer and employee should be aware of safety and health.

According to Mamoria (1991), types of safety issues are different from industry to industry. Within the working environment, there are different types of safety and health issues caused by machines, processes and materials. These safety issues can be controlled and uncertainty can be relieved. It is more important to maintain safety and health within working place for any organization as it will reduce the legal problems related to safety and health. A poor health and safety practices will create following issues like, poor labour manager relationship, employee frustration, reduction of the goodwill of the organization, disappointments and also it will create many grievances. This also leads to the safety and health issues within workplace.

By considering above issues and literature support, the research problem for the study is derived as “how safety and health impact on job satisfaction among Field employees in Utility Service Supply Organization in Western Province North.”

### **Research Framework**

The research framework primarily highlights the relationship between the independent and the dependent variable (Miles and Huberman 1994); Robson 2011) and in this study, the independent variable is safety and health consisting of five dimensions and the dependent variable is job satisfaction (refer Figure 01).

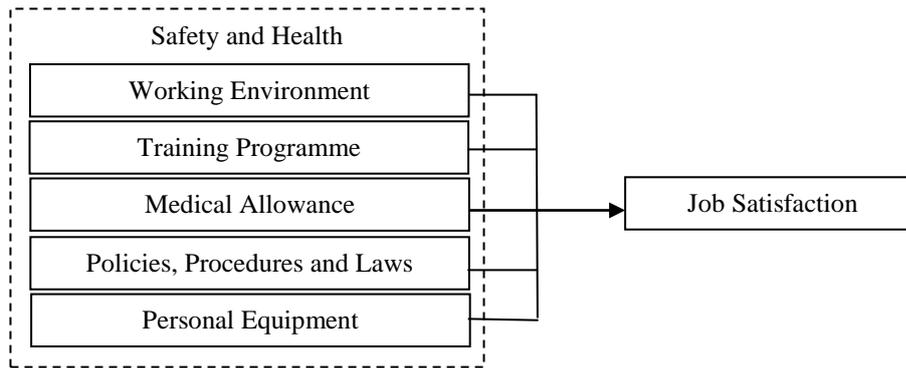
Safety is the sense of security the employees feel evident from the visible practices and measures practiced by the organizations (Mitchison & Papadakis 1999). It is the protection or security the experience for when engaged in working and at the time of the production process in their work environment (Rachmawati 2008). Safety in addition to the sense of security provides employee satisfaction. According to International Labour Organization (ILO) (1995)/ World Health Organization (WHO) (1995), health means the prevention of departures from work on conditions caused by working conditions when placing and maintaining workers in an occupational environment adapted to employees' physiological and psychological capabilities to aim promotion and maintenance of the highest degree of physical and social well-being.

Leap and Crino (1993) defines job satisfaction as different aspects related to his or her job. These may include attitudes related to job, rewards earned, social, organizational and physical characteristics of the environment the working activities are performed.

### ***The Impact of Safety and Health on Job Satisfaction***

In the study of study Tobi et al. (2013), it has been proved that health among employees will strongly influence on their job satisfaction. According to the research conducted by the National Institute for Occupational Safety and Health (NIOSH) (2006), 40% of employees believe that they can work at the satisfactory level, “very” or “extremely” stressfully and 26% of employees feel “burned out” at work. Other studies, such as Vassie and Lucas (2001) have found that greater involvement of safety and health may lead to the positive attitude of a variety of safety and health initiatives including ergonomic changes, risk assessment and general climate of safety and health. As per Bottani et al. (2009), if an organization has introduced proper safety and health practices and give better perception, that organization cares about employees, and then, it will contribute partially to the satisfaction level of an employee.

Figure 01: Research Framework



### Method

This study is an analytical and quantitative study in nature since it is intended to find out and measure the impact of SH on job satisfaction and is to be carried out in a non – contrived work setting which provides the actual situation of the organization intended to use survey technique to gather cross sectional data using a questionnaire.

116 field employees of Utility Service Supply Organization in Western province north was the study population which represented Control Room Operator, Linesman, Junior Technical Mate, and Trainee Junior Technical Mate. The universal sampling method was used when selecting the sample as the population. Finally, questionnaires were distributed among 116 employees by hand and received 116 responses as completed questionnaire. The response rate for the questionnaire is 100%.

### Measures

Survey technique was used to gather primary data using a self-administered questionnaire as the instrument of collection data. Main reason for the use of the questionnaire in this study is that it is easy to collect a large amount of data within a shorter period of time at a lesser cost. Questionnaire consisted of three parts; Part A of demographic factors as designation, age, marital status, educational qualification and service period, the Part B with ten questions to measure safety and health based on Shathika in 2014 questionnaire with 10 statements. The variable of safety and health was operationalized into five dimensions such as working environment, training program, medical allowance, policies, procedures and laws as well as personal protective equipment. Working environment focused on, two elements which included the cleanliness and safety; training program having participation and accidents elements; medical allowances measured through quick payment and biasness; policies, procedures and laws focused on equally practice and knowledgeable elements and personal protective equipment consisting of quality and adequacy elements.

Part C was of 22 statements to measure the job satisfaction developed by Weiss et al. (1967). Job satisfaction was measured in terms of five dimensions and 17 indicators as Work itself (time utilization, communication, creativity); Pay (performance based, salary scheme, cost of living allowance, bonuses payment); Supervision (supervisor human relation, trust,

supervisor communication skill); Co-worker (help, friendly, mistakes, loyalty) and Working conditions (company policies and practices, machines, working conditions).

Response to individual items was scaled according to a five – point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). All the questions were presented as statements and employees were supposed to rank them according to the scale.

### ***Reliability and Validity***

Reliability concerns the extent of agreement between two or more measures of a trait through similar methods (Smith et al. 1989). Cronbach alpha is a measure of the degree of consistency with a test. The results of Cronbach's alpha test given in Table 1 suggest that the reliability of each instrument was satisfactory. The content validity of the instruments was identified through the conceptualization and operationalization of the relevant variables using existing literature.

Table 1: Reliability Statistics

	Instrument	Cronbach's Alpha
1	Safety and Health	0.913
2	Working Environment	0.779
3	Training Programs	0.208
4	Medical Allowance	0.715
5	Policies, Procedures and Laws	0.942
6	Personal Protective Equipment	0.830
7	Job Satisfaction	0.950

### ***Techniques of Data Analysis***

The objective of this study analysis was achieved through the computer based statistical data analysis package of SPSS 16.0. The data analysis included both univariate and bivariate analysis.

### **Results**

When analyzed the demographic factors, it was identified that, out of 116 respondents, 15 were under 18 – 25years, 23 under 26 – 32 years, 22 33 – 39 years and 56 above 40 years .87% respondents were married and 15 were single. Out of 116 respondents, 10 respondents had a1 month Technical Training, 69 respondents - 1 month training from training branch at CEB (Ceylon Electricity Board), 31 respondents -1 year training with 4 years of service and 6 - 4 years training in CEB which amounts to 9%, 59%, 27% and 5% respectively. Further, 28 employees had 1-5 year' experience, 29 employees -6-10 year experience, 12 employees 11 – 15 year experience and 47 are above 16 years of experience which is calculated as 24%, 25%, 10% and 41% respectively.

To investigate the responses for independent and dependent variables of the field employees in Utility Service Supply Organization, univariate analysis was used. The results of the univariate analysis are in Table 2.

Table 2: Univariate Analysis

	Mean	Std. Deviation	Skewness	Kurtosis
Working Environment	3.9741	.73380	-.665	.220
Training Programs	3.6552	.72656	.445	-.925
Medical Allowance	3.6207	.89107	-.541	-.004
Policies, procedures and laws	3.8879	.83688	-.736	.045
Personal Protective Equipments	3.7586	.89802	-.372	-.574
Safety and Health	3.7793	.66627	-.045	-.538
Job Satisfaction	3.8184	.58255	.554	-.250

According to Table 2, the level of perceived safety and health and job satisfaction of field employees in Utility Service Supply organization is normally distributed. As per means, the safety and health of employees is well above the average. The perceived job satisfaction of field employees is also above the average.

The bivariate analysis, Pearson's Correlation between SH dimensions with job satisfaction of the field employees in Utility Service Supply Organization is in the Table 3 below.

Table 3: Correlation between Variables

	Pearson Correlation	Sig. (1-tailed)
Working Environment and Job Satisfaction	.704**	.000
Training Programs and Job Satisfaction	.575**	.000
Medical Allowance and Job Satisfaction	.552**	.000
Policies, procedures, laws and Job Satisfaction	.481**	.000
Personal Protective Equipment and Job Satisfaction	.497**	.000
SH and Job Satisfaction	.683**	.000

According to the analysis (Table 3), the correlation between safety and health and, the job satisfaction of the field employees is .683 which is significant at the 1% ( $p: 0.000$ ) level indicating that the correlation is statistically significant. The correlation between the working environment and the job satisfaction of the field employees is .704 which is significant at the 1% ( $p: 0.000$ ) level indicating that the correlation is statistically significant. 0.575 coefficient is recorded between the training programs and the job satisfaction of the field employees and it is also statistically significant. There noted a correlation of .552 between the medical allowance and the job satisfaction of the field employees significant at the 1% ( $p: 0.000$ ) level indicating that the correlation is statistically significant. As correlation coefficients between the policies, procedures laws and the job satisfaction is .481, the personal protective equipment and the job satisfaction of the field employees is .497 significant at the 1% ( $p: 0.000$ ) level indicating that the correlation is statistically significant.

Additionally the regression analysis was conducted to identify the impact of safety and health on job satisfaction. According to the Table 4, the value of R square is .466. i.e. 46.6% of variance of job satisfaction as explained statistically significant by the all variables of the safety and health.

Table 4: Results of Multiple Regression Analysis

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.683 <sup>a</sup>	.466	.462	.42748	1.926

a. Predictors: (Constant), Safety Health

b. Dependent Variable: Job Satisfaction

## Discussion and Conclusion

This study reveals that the overall safety and health dimensions positively correlate with the job satisfaction, along with the working environment, the training programs, the medical allowance, the policies, the procedures and the laws and, the personal protective equipments are also positively correlated with job satisfaction among the field employees (refer Table 3).

According to the results of regression analysis, safety and health is a positive variance on job satisfaction of 0.466. It shows that the two variables are in a strong linearly relationship. It means that when safety and health increase, the job satisfaction is also increased by 46.6%. In addition to that, the dimensions of safety and health also have a positive impact on the job satisfaction of the field employees that has been under the confirmatory support of Yusuf et al. (2012), Brill et al. (2001) and Newsham et al. (2004).

The relationship between the safety and health and the job satisfaction was still positive and significant at the 0.000 level. The correlation between these variables was 0.683 (refer Table 3). These findings are in line with that of the related studies that emphasize the importance of safety and health on job satisfaction across a variety of settings. For instance, results of Bakotic and Babic (2013), show that there is no significant difference in the overall job satisfaction between the workers who work under difficult working conditions and those who work under the normal working conditions. Workers who work under the normal working conditions are more satisfied with the working conditions than those who work under difficult working conditions. Because of that, he has emphasized that the working conditions are more important factors to determine the job satisfaction of employees.

The consistency between the findings of the current study and those of the most other related studies suggests that the safety and health is an essential factor for job satisfaction (Robins 1998; Tobi et al. 2013; Omusulah 2013).

## Recommendations, Implications and Further Studies

According to the findings of the study, the safety and health of the employee is a significant element to determine the job satisfaction of the all employees in selected branches of Utility Service Supply Organization in Western Province North. Job satisfaction is a phenomenon that has not yet been totally clarified. This study is focused on the observation of the importance of the safety and health to overall job satisfaction. Empirical research findings show that there is no significant difference in overall job satisfaction between the workers who work in normal working conditions and the workers who work in difficult working conditions. The working conditions are important factors for their overall job satisfaction. So,

the working conditions are identified as a factor related to job satisfaction. However, in the study, it was also discovered that the SH are an important factor for the overall job satisfaction and it could be concluded that it is necessary to improve the SH of workers who work in difficult working conditions. Improving SH relates to the improvement of safety at work, the training of workers, the control and improvement of machinery and tools, and to provide the adequate protective equipment. As a result of these improvements, it is possible to bring into light that that employee satisfaction increases of the workers who work under difficult working conditions with SH. It means that the workers could equally become satisfied with SH as workers who work in normal working conditions which may favorably act on their overall job satisfaction as well as performance.

The findings of this study shall be important both in the theoretical as well as practical scenario in order to improve the job satisfaction of employees in these types of organizations .As a major way of enhancing the job satisfaction of the employees, the programs relating to the enhancement of safety and health are to be implemented successfully. Working environment, training programs, medical allowance, policies, procedures and laws as well as the use of personal protective equipment and Work itself, payments, supervision, co-worker and the working conditions are few strategies that could be used to of upgrade the job satisfaction of a worker. The top management of the organizations in the Utility Service Supply Organization should consider these factors and enhance the job satisfaction of the field employees to achieve their maximum contribution towards the organizational objectives and developments.

Further, the research studies suggest that there are some other factors that affect on job satisfaction of field employees in Utility Service Supply Organization and other organizations as well. Therefore , it is encouraged to increase the population and sample size for the future studies if a similar study is conducted for the other Utility Service Supply organizations and as well as other professions.

## References

- i. Annual Accident Report, 2010, Ceylon Electricity Board.
- ii. Bakotic, D & Babic, T 2013, 'Relationship between Working Conditions and Job Satisfaction: The Case of Croatian Shipbuilding Company', *International Journal of Business and Social Science*, Vol. 4, No. 2, pp. 206-213.
- iii. Benjamin, OA, 2008, *Fundamental Principles Of occupational health and safety*. 2nd ed. International Labour Office – Geneva, I L O Cataloguing in Publication Data.
- iv. Bernadin, HJ 2007, *Human Resource management*, 4th edition, Tata McGraw Hill.
- v. Bottani, E, Monica, L & Vignali, G 2009, *Safety management systems: Performance differences between adopters and non-adopters*. Safety Science, Vol. 47, pp. 155-162.
- vi. Brill, M, Weidemann, S & BOSTI Associates, 2001, *Disproving Widespread Myths About Workplace Design*, Kimball International, Jasper, IN.
- vii. Crampton, SM & Hodge, JW 2008, 'Rudeness and Incivility in the Workplace', *Journal of Leadership Accountability and Ethics*, Vol. 8, pp. 41-48.
- viii. Damayanthi, HDWT, Wichaikhum, O, & Chontawan, R 2014, 'Prediction Factors of Job Satisfaction among Nurses in Sri Lanka', *International Journal of Pharmacy & Bioscience*, Vol. 1, No. 1, pp. 1-7.

- ix. Flippo, EB 1984, *Personnel Management*, 6th Edition, McGraw Hill.
- x. Huang, HY, Ghen, PY, Krauss, AD & Rogets, DA 2004, 'Qual-ity of the Execution of Corporate Safety Policies and Employee Safety Outcomes : Assessing the Moderating Role of Supervisor Safety Support and the Mediating Role of employee Safety Control', *Journal of Business and Psychology*, Vol. 18, No. 4, pp. 483-506.
- xi. International Labour Organization and World Health Organization 1995, 12<sup>th</sup> Session of the Joint ILO/WHO Committee on Occupational Health and Safety.
- xii. Jagodaarachchi, B 2006, 'Employee Job Satisfaction', *Academia.edu*", Individual Assignment.
- xiii. Kelloway, E, Kevin Day & Arla, L 2005, 'Building healthy workplaces: What we know so far', *Canadian Journal of Behavioural Science/ Revue canadienne des sciences du comportement*, Vol. 37, No. 4, pp. 223-235.
- xiv. Leap, TL & Crinno, MD 1993, *Personnel/ Human Resource Management*, Macmillian Publishing Company.
- xv. Mathis, RL & Jackson, JJ 2003, *Human Resource Management*, Tenth Edition, Ohio, Thomson Corporation.
- xvi. Miles, MB & Huberman, AM 1994, *Qualitative Data Analysis*, 2<sup>nd</sup> edition, Thousand Oaks, CA, Sage Publications.
- xvii. Mitchison, N & Papadakis, G 1999, 'Safety management system under Seveso II: Implementation and assessment', *Journal of Loss Prevention in the Process Industries*, Vol. 12, No. 1, pp. 43-51.
- xviii. Mitchison, N & Papadakis, G 1999, 'Safety management system under Seveso II: Implementation and assessment', *Journal of Loss Prevention in the Process Industries*, Vol. 12, No. 1, pp. 43-51.
- xix. National Institute for Occupational Health and safety (NIOSH) 2006, *Criteria for a Recommended Standard: Occupational Exposure to Refractory Ceramic Fibers*, Issue 123.
- xx. Newsham, G, Veitch, J, Arsenault, C & Duval, C 2004, *Effect of dimming control on office worker satisfaction and performance*, In proceeding of the IESNA Annual Conference, Tampa, Florida, USA, pp. 19-41.
- xxi. Omusulah, ID 2013, *Perceived Influence of Occupational Health and Safety practices on job satisfaction among employees in Chemelil Cugar company Limited, Kenya*, A research project submitted in partial fulfillment of the requirements for the award of master of business administration, the University of Nairobi.
- xxii. Opatha, HHDNP 2010, *Human Resource Management* , 5<sup>th</sup> edition, Author Publication.
- xxiii. Opatha, HHDNP 2009, *Human resource management*, Author publication.
- xxiv. Oshagbemi, T 1999, 'Overall job satisfaction: how good are single vs. multiple-item measures?', *Journal of Managerial Psychology*, Vol. 14, pp. 388-403.
- xxv. Rachmawati, IK 2008, *Manajemen Sumber Daya Manusia*, Penerbit, ANDI Yogyakarta.
- xxvi. Ria, et al. 2012, 'The influence of occupational safety and health on performance with Job satisfaction as intervening variables; A study on the production employees in PT Mahakarya Rotanindo, Gresik', *American Journal of Economics*. DOI: 10.5923/j.economics.2010001.30.
- xxvii. Robbins, SP 1998, *Organizational Behavior: Concepts. Controversies and Applications* (8<sup>th</sup> edition), New Delhi Prentice hall of India Pvt Ltd.
- xxviii. Robin, T & Walker, D 2000, 'Motivating the Workforce: The Value of External Health and Safety Awards', *Journal of Safety Re-search*, Vol. 31, No.4, pp. 143-251.
- xxix. Robson, C 2011, *Real World Research*, 3<sup>rd</sup> Edition, Kieran McCartan.

ISSN: 2420-7608

- xxx. Saleemi, NA 2009, *Personnel Management Simplified*, 2<sup>nd</sup> Edition, Author publication.
- xxx. Shathika, KDS 2014, 'The Impact of Occupational Safety and Health on Job satisfaction of Employees (Ceylon Electricity Board)', Institute of Personal Management.
- xxxii. Sherry, P 1992, *Peer Involvement and Behavioral Safety*, 25<sup>th</sup> August 2015, [www.du.edu/~psherry/hav.html](http://www.du.edu/~psherry/hav.html).
- xxxiii. Smith, TM, Miller, JR & Russell, GL1989, 'Seasonal oceanic heat transports computed from an atmospheric model and ocean temperature climatology', *Dyn. Atmos. Oceans*, Vol. 14, pp. 77-92, doi:10.1016/0377-0265(89)90006-7.
- xxxiv. Tobi, SNM, Munir, RIS & Mat, KAB 2013, 'Job Satisfaction and Phtsiological Health (HRRQOL) amongst Administrative Employees in Malaysian Government Sector', *International Journal of Innovation, Management and Technology*, Vol. 4, No. 6, pp. 625-629.
- xxxv. Vassie, LH & Lucas, WR 2001, 'An assessment of health and safety management within working groups in the UK manufacturing sector', *Journal of Safety Research*, Vol. 32, No. 4, pp. 479-490.
- xxxvi. Warr, P, Cook, J & Wall, T 1979, 'Scales for the measurement of some work attitudes and aspects of psychological well-being', *Journal of Occupational Psychology*, Vol. 52, pp. 129-48.
- xxxvii. Weiss, DJ, Dawis, RV, England, GW and Lofquist, LH 1967, *Manual for the Minnesota Satisfaction Questionnaire*, vol. 22, Minnesota Studies in Vocational Rehabilitation, Minneapolis: University of Minnesota, Industrial Relations Center.
- xxxviii. Wilson-Donnelly, KA, Priest, HA, Salas, E & Burke, S 2005, 'The impact of organizational practices on safety manufacturing: a review and reappraisal', *Human Factors and Ergonomics in Manufacturing*, Vol. 15, No. 2, pp. 135-76.
- xxxix. Yusuf, M, Sharma, M, Hussain, S & Hussain, A 2012, 'Phytochemical Constituents and Pharmacological activities of Eclipta Alban Linn (Asteraceae): A review', *International Research Journal of Pharmacy*, Vol. 3, No. 12, 2230-8407, pp. 51-53.



**Kularathna, W.K.H.U.**

Department of Human Resource Management  
University of Sri Jayewardenepura [harsanie@yahoo.com](mailto:harsanie@yahoo.com)



**Dr. Perera, G.D.N.**

Senior Lecturer  
Department of Human Resource Management  
University of Sri Jayewardenepura [dinokanp@sjp.ac.lk](mailto:dinokanp@sjp.ac.lk)

---