RAIS Journal for Social Sciences | VOL. 5, No. 2, 2021
ISSN 2574-0245 (Print) | ISSN 2574-1179 (Online) | DOI: 10.5281/zenodo.5722210

Analysing the Impact of Occupational Stress on Employee Performance: A Case Study on Hayleys Plantations and Tea Export PLC in Sri Lanka

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ABSTRACT: Employees spend fifty percent of their lives in indoor workplace environments, which greatly influence their mental status, reactions, and performance. Therefore, organisations are responsible in creating a stress-free work environment for their employees to perform well while maintaining their physical and psychological well-being. Thus, the purpose of the current study is to identify the impact of occupational stress on employee performance in plantation industry, Sri Lanka. Respectively, the researchers looked at the research problem in a positivist view by utilising deductive reasoning to collect quantitative (survey design) data. The target population was 110 employees in which 82 sample size was decided based on Krejcie and Morgan (1970) sample size table and chosen utilising simple random sampling. However, the data was collected from 81 employees of a prominent organisation in plantation industry. Our results suggested a significant positive relationship ($r = .978$, $p<.01$) between occupational stress and employee performance by accepting main alternative hypothesis. The findings have implications for researchers and managers in plantation industry.

KEYWORDS: employee performance, occupational stress, excessive workload, job security, compensation and benefits, work-life balance

1. Introduction

Sri Lanka being a tropical country, acquired a dominant place due to its remarkable plantation industry, which has become one of the country's largest foreign and domestic exchange earners and the single most enormous employment opportunities provider (Rajadurai 2016). Thus, the dynamic changes in socio-economic culture have led renowned plantation companies like Hayleys Plantation to adopt successful strategies to survive and remain in the competitive business environment.

Additionally, prior research (Tharindra et al. 2016, 3; Arunatilake 2013, 488) depicts that Sri Lankan plantation companies are uncertain about work-related stress and its impact on different employee aspects. Therefore, it is evident that there are problems resulting from occupational stress within the plantation industry that require further examination. However, there is a lack of empirical evidence on employee performance and occupational stress in a single paper (Gamage and Wickramaratne 2021, 53; Arumainayagam and Morais 2020, 68). Therefore, the current study investigates the impact of occupational stress on employee performance which is prevailing as a research gap. The data was collected from Hayleys plantation, one of the three prominent plantation companies in Sri Lanka, to examine the impact of occupational stress on employee performance in Sri Lanka's plantation industry.

2. Literature Review

2.1 Occupational stress and models of occupational stress

Occupational stress has become a major concern within the plantation industry over the last two decades (Ranasinghe 2020, 237). Most views suggest occupational stress as a harmful physical or emotional response that occurs when employee resources and capabilities are inconsistent with the demand of the job role (Bell, Rajendran and Theiler 2012, 32; Bhui et al. 2016, 318). However, Di Fabio et al. (2018, 2) identify occupational stress as an interactionist approach that shows a positive interaction between the individual stress level and outcomes. For instance, Brule and Morgan (2018, 3) affirm that some individuals experience eustress (positive stress) from physical and psychological stressors, resulting in positive workplace outcomes. Thus, occupational stress can be a debilitating experience and a motivating factor that possesses an ability to pressure the employees.

Theories of occupational stress have distinct explanations on sources and causes of occupational stress. Respectively, some of the influential models are Murphy's model of work stress (1955, 41-50), and the job demand resource model (Bakker and Demerouti 2007, 313), which have been further justified through early research studies (Vandenberg 2002, 27; Lazarus 2001, 34). Murphy's model of work stress (figure. 1), which was reframed by Michie (2002, 68), includes sources which are unique to the job role and organisational context. Consequently, these sources drive individuals to experience physical and psychological outcomes such as poor performance, high turnover, and health hazards.

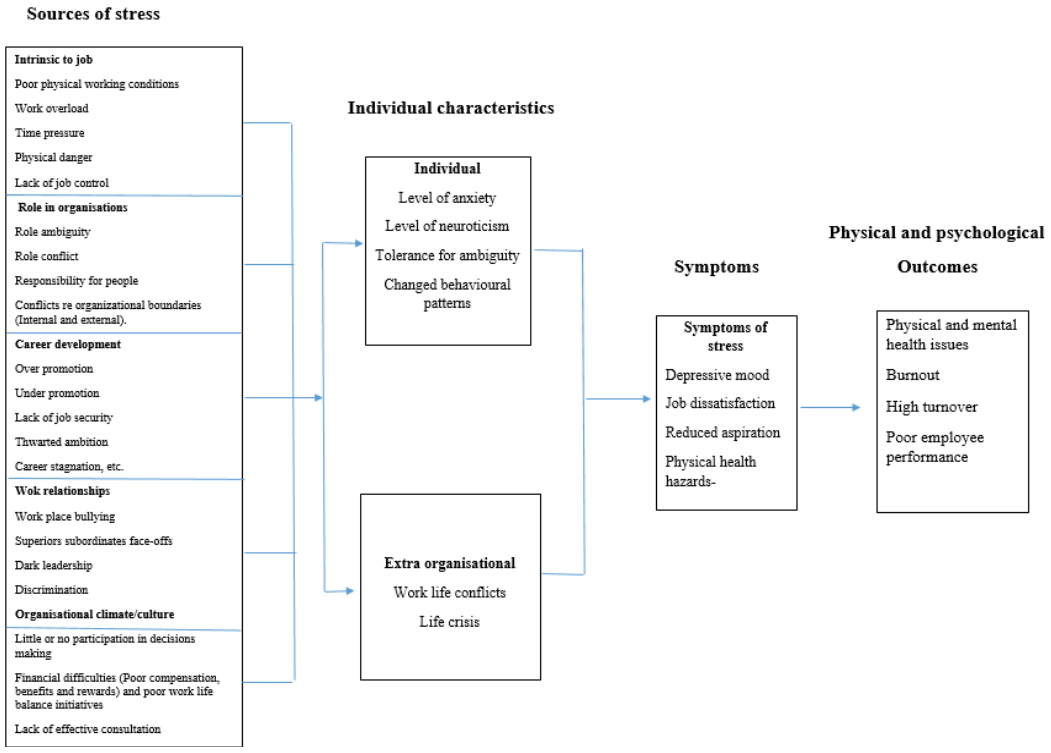

Figure 1. Reframed Murphy's model of work stress

Similarly, the job demand resource model by Bakker and Demerouti (2007, 313) reframed by Yom (2013, 821) demonstrates two general categories of work stress: job demand and job resources, which influence employee and organisational performance (figure. 2)

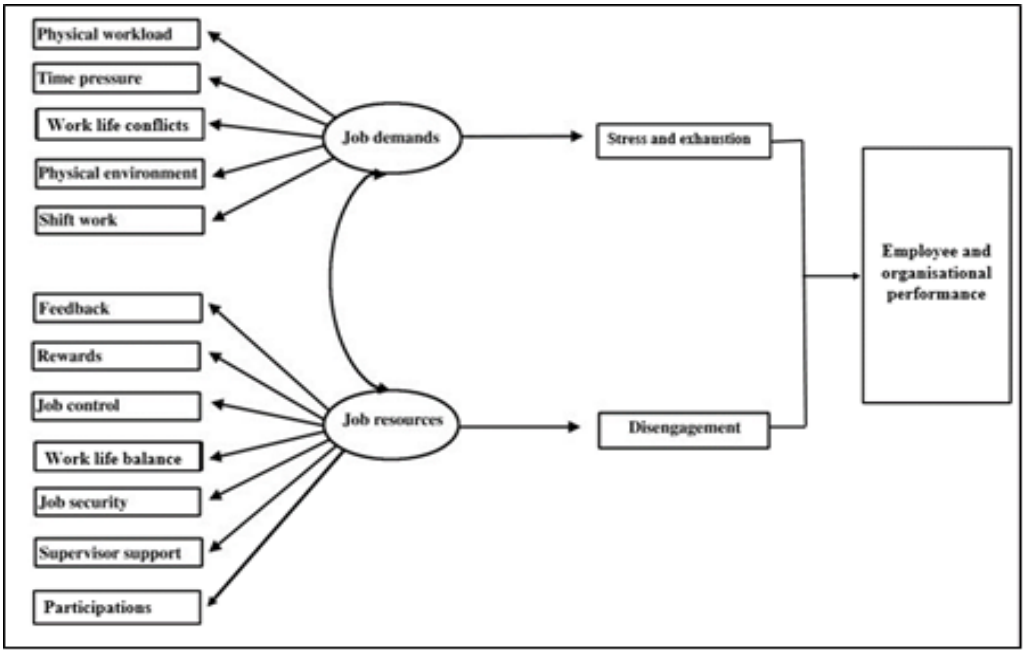

Figure 2. Reframed Job Demand Resource Model

Based on these studies and theories, excessive workload (EW), compensation and benefits (C&B), work life balance (WLB) initiatives and job security (JS) are identified as the most common stressors that influence employee performance (Murphy 1995, 41-50; Michie 2002, 68; Bakker and Demerouti 2007, 313). Thus, these 4 dimensions were utilised to analyse the relationship between occupational stress and employee performance in current study.

2.2 Employee performance

Employee performance is a major contributing factor for overall organisational success (Budur and Puturak 2021, 453). Indeed, employee performance is a revenue generator since employee behaviours and outcomes determine the profitability of the organisations (Mariappanadar and Kramar 2014, 208). When the employee performance is directed to the organisational goals and objectives, organisations keep themselves away from achieving peripheral goals. Furthermore, Hunnur, Bagali, and Sudarshan (2014, 39-47) explains that organisations can obtain high performing staff by providing them with necessary resources and opportunities within a stress-free work environment. Conversely, poor performance can result in higher business operating cost over wasted resources (Anitha 2014, 35). Consequently, demotivated, and stressed staff with poor performance are detrimental to the organisational productivity. Therefore, it is significant for organisations to identify the fundamental factors impacting employee performance since employee performance positively impacts on organisational productivity. These suggest that if an organisation needs to gain a competitive advantage, they need to manage employee performance and create a stress-free work environment.

2.3 Occupational stress factors that influence on employee performance in the plantation industry

Excessive workload is considered one of the most influential factors on employee performance in plantation industry (Yovi and Yamada 2019, 351). As depicted in plantation study by Balakrishnan (2010), a negative relationship between excessive workload and employee performance was revealed since 40% of the employees experience occupational

stress due to heavy workload. Furthermore, Aameri (2003, 45), through his plantation research, mentioned that both employees evade their working responsibilities and perform less when they start to experience excessive workload burnout. In contrast, the plantation studies by Puteh, Pane, and Alifiady (2021, 114) and Munisamy (2013, 1-79) discover a significant positive relationship between excessive workload and employee performance, stating that employees perform well when they are stressed moderately due to excessive workload. These suggest that excessive workload negatively and positively impacts on employee performance of plantation industry due to higher and moderate levels of occupational stress.

Work-life balance leads to better employee performance within the plantation industry (Munisamy 2013 1-79). Conversely, when employees experience work-life conflict, they experience higher level of occupational stress resulting in poor performance (Gamage and Wicramaratne 2020, 21). In contrast, Haralayya (2021, 252) found a strong positive relationship between work-life balance and employee performance since respondents were highly satisfied with their current working conditions and level of work-life balance. These suggest that work-life balance determines employee performance, yet poor work-life balance leads to increased occupational stress levels resulting in poor performance. Accordingly, Zaman, Anwa, and Lohano (2015, 108-122) believe that the plantation companies should formulate work-life balance policies and provide work-life balance initiatives such as flexible work arrangements, spatial arrangements, dependency care assistance, and company social events that can create a significant impact on employee performance.

Compensation and benefits can be perceived as a parameter to measure employee performance in the plantation industry. Thus, occupational stress can reduce employee performance if employees are not compensated and rewarded according to their skill, knowledge, standards, and goals (Shields et al. 2015, 72). Supportively, Siregar (2018, 337) in his study of the plantation industry reveals a negative correlation between these two variables since participants believe their pay and perks are not parallel to their skills and knowledge base. Conversely, the study of plantation companies by Baba (2015, 221) uncovers a positive relationship between compensation and employee performance as 60% of respondents show satisfaction and outperformance as they possess less stress with good remuneration package. Furthermore, Siregar (2018, 328) demonstrates that employees employed in plantation companies are less stressed and outperformed when their organisations maintain a competitive compensation package designed according to the prevailing market rate. These suggest that it is necessary for organisations to maintain a competitive compensation policy aligned with market rate to reduce stress and improve performance.

Job security is one of the parameters to measure employee performance at plantation companies since it establishes a clear career path for employees (Shan et al. 2012, 94-104). Similarly, the research carried out by Bawa and Jatan (2005, 73) and Das (2013, 12) discovered a positive relationship between job security and employee performance. They further suggest that employees, in particular, plantation companies feel secure on the future existence of their career. In contrast, Shan et al. (2012, 94-104) affirm that job insecurity causes plantation employees to lose faith and increase stress, affecting their performance. The same study discovers a negative impact of job security on employee performance since higher level stress were resulted due to a fear of losing in the future. Thus, plantation organisations are expected to increase the employee feeling of job security, which positively impacts on employee performance.

2.4 Impact of occupational stress on employee performance in plantation industry

According to Gamage and Wickramaratne (2020, 18), employees in plantation industry are vulnerable to stress resulting in substantially decreased performance as they portray central figures in managing workers from plantation estates (Rotich and Kwasira, 2015). Respectively, most of the studies conducted in the plantation industry reveal a negative impact of occupational stress on employee performance (Muhammad 2021, 118; Rotich and Kwasir 2015, 70-76), while only a few shows a positive correlation (Asamoah-Appiah and Aggrey-Fynn 2017, 21-23; Siregar 2018, 337; Munisamy 2013, 40-43). These suggest that limited studies were directed to examine the relationship between work stress and employee performance, yet, work stress and poor employee performance remain the fundamental issues for employees in the plantation sector.

Accordingly, research by Asamoah-Appiah and Aggrey-Fynn (2017, 21-23) conducted utlising 281 sample population in Twifo plantation reveals a positive impact of occupational stress on employee performance due to factors such as job conditions, interpersonal relations and career advancement. Similarly, the research by Munisamy (2013, 40-41) conducted with 50 employees in an Indian plantation company reveals a positive correlation between occupational stress and employee performance due to various stressors such as workload, job security, pay and benefits. These suggest that there are positive and negative relationships between performance and work stress among the employees in plantation industry.

Based on these empirical studies and models of work stress, the following conceptual framework (figure 3) was developed in order to identify the relationship between occupational stress and employee performance at Hayleys Plantation.

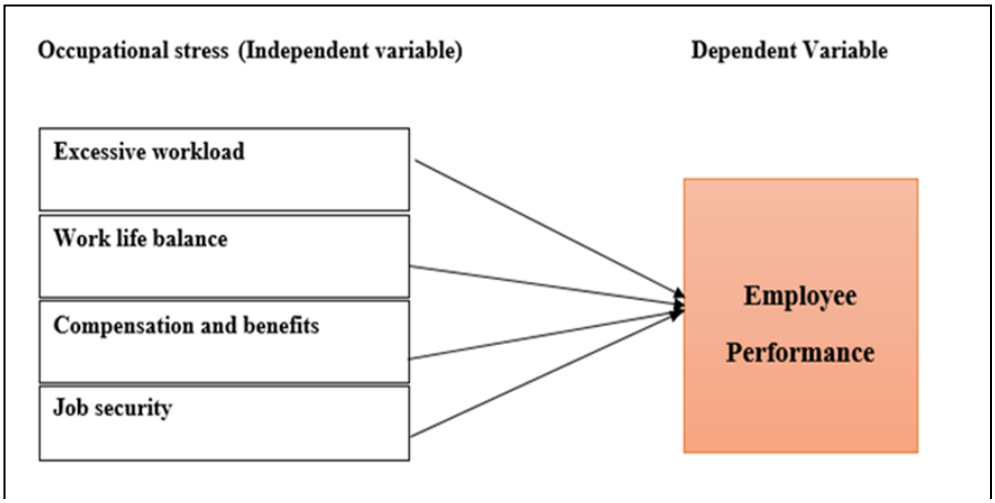

Figure 3. Conceptual framework of the current study

3. Research Methodology

The current cross-sectional study focused on the positivist school of thought (Morgan 2007, 48-50) by utilising deductive reasoning (King and Anderson 2002, 41) to collect quantitative data. Further, it reflects researchers' interest in choosing the mono method since it only utilises quantitative data collection and analysis procedures (Bryman and Bell 2015, 56). Furthermore, total 10 hypotheses (figure. 4) were formulated based on conceptual framework to discover the relationship between occupational stress and employee performance. Thus, the survey strategy was adopted for the current study since it developed a broad survey questionnaire in order to collect quantitative data.

Excessive workload ⟶ Employee Performance	
H_{01}	Excessive workload has no significant impact on employee performance.
H_{a1}	Excessive workload has a significant impact on employee performance.
Work life balance ⟶ Employee Performance	
H_{o2}	Work life balance has no significant impact on employee performance.
H_{a2}	Work life balance has a significant impact on employee performance.
Compensation and benefits ⟶ Employee Performance	
H_{o3}	Compensation and benefits has no significant impact on employee performance.
H_{a3}	Compensation and benefits has a significant impact on employee performance.
Job security ⟶ Employee Performance	
H_{o4}	Job security has no significant impact on employee performance.
H_{a4}	Job security has a significant impact on employee performance.
Main hypothesis	**Occupational stress ⟶ Employee Performance**
H0	Occupational stress has no significant impact on employee performance.
H1	Occupational stress has a significant impact on employee performance.

Figure 4. Hypotheses for the current study

3.1 Sampling methods, population and data collection tools

The target population was 110 employees in which 82 sample size was decided based on Krejcie and Morgan (1970, 607-610) sample size table and chosen utilising simple random sampling. Respectively, the manual lottery method was utilised to provide equal opportunities for all participants in which each member of the population was assigned a number which is then drawn randomly. A total of 81 employees completed a paper-based survey questionnaire which was consisted of twenty 5-point likert scale. Significantly, the pilot survey was conducted, distributing the pilot questionnaire to a small sample size of 10 to assess the limitation and feasibility of the questionnaire. As per the results from the pilot survey, an improvement has been made to the questionnaire, which finally contributed the researcher to affirm its validity and reliability.

3.2 Data analysis method

The quantitative data was analysed utilising descriptive statics, bivariate Pearson correlation, coefficient, and multiple regression, with the help of SPSS (statistical package for social science) software.

4. Data analysis and discussion

4.1 Analysis of demographic factors

The data was analysed using SPSS version 27. The results showed a well-balanced sample of male (58%) and female (42%). The highest percentage of the selected respondents represents two age categories ranging from 18-24 (20%) and 30-34 (21%). The marital status of the population represents the majority as married (61%) compared to the single population (40%). In terms of the educational background, majority of the respondents have professional qualifications (47%).

4.2 ***Statistical analysis to identify the impact of occupational stress on employee performance (hypothesis testing)***

The responses of the scaled questions were collected using 5-point likert scale (1 = strongly disagree, 5 = strongly agree). Table 1 summarises the descriptive statistics.

Table 1. Descriptive Statistics

Descriptive Statistics						
	N	Range	Minimum	Maximum	Mean	Std. Deviation
Excessive workload	81	1.75	2.50	4.25	3.3056	.43301
Worklife balance	81	1.75	2.50	4.25	3.2623	.40870
Compensation and benefits	81	1.75	2.25	4.00	3.3025	.45366
Job security	81	1.75	2.25	4.00	3.2623	.44353
Occupational stress	81	1.63	2.38	4.00	3.2832	.41412
Employee performance	81	1.75	2.50	4.25	3.2809	.44788
Valid N (listwise)	81					

As per table 1, the ranges of the independent variables (excessive workload, worklife balance, compensations and benefits, and job security) show lower values (1.75), including main independent variable (occupational stress-1.63) as these factors of the Hayleys Plantation were reviewed out of value 5 (maximum value). Similarly, the dependent variable (employee performance) manifests lower value (1.75) under range which goes line with independent variables. This is because employee performance was determined by other independent variables. On the other hand, standard deviation of the independent and dependent variables was impacted by range in which it shows higher values since the number are more spreaded.

The authors will consider the below parameters when analysing the correlation and strength of relationships between the independent and dependent variables.

Effect size: If,

r < -0.5= Weak negative relationship

r > -0.5= Strong negative relationship

r < 0.5= Weak positive relationship

r > 0.5= Strong positive relationship

Table 2. Correlation analysis

Correlations							
		Excessive workload	Worklife balance	Compensation and benefits	Job security	Occupational stress	Employee performance (DV)
Excessive workload	Pearson Correlation	1	.812**	.880**	.855**	.934**	.910**
	Sig. (2-tailed)		<.001	<.001	<.001	<.001	<.001
	N	81	81	81	81	81	81
Worklife balance	Pearson Correlation	.812**	1	.890**	.874**	.939**	.903**
	Sig. (2-tailed)	<.001		<.001	<.001	<.001	<.001
	N	81	81	81	81	81	81
Compensation and benefits	Pearson Correlation	.880**	.890**	1	.932**	.973**	.965**
	Sig. (2-tailed)	<.001	<.001		<.001	<.001	<.001

	N	81	81	81	81	81	81
Job security	Pearson Correlation	.855**	.874**	.932**	1	.962**	.946**
	Sig. (2-tailed)	<.001	<.001	<.001		<.001	<.001
	N	81	81	81	81	81	81
Occupational stress	Pearson Correlation	.934**	.939**	.973**	.962**	1	.978**
	Sig. (2-tailed)	<.001	<.001	<.001	<.001		<.001
	N	81	81	81	81	81	81
Employee performance (DV)	Pearson Correlation	.910**	.903**	.965**	.946**	.978**	1
	Sig. (2-tailed)	<.001	<.001	<.001	<.001	<.001	
	N	81	81	81	81	81	81
**. Correlation is significant at the 0.01 level (2-tailed).							

According to the table 2, the selected 4 occupational factors such as excessive workload (.910), work life balance (.903), compensation (.965) and job security (.946) are positively correlated with dependent variable (employee performance). Consequently, the main independent variable (occupational stress, .978) is also positively correlated with employee performance. Similarly, significant value represents 0.000 which is less than chosen significant level of 1% (0.01). Therefore, it can be concluded that there is a strong positive relationship between independent and dependent variables, which means changes in independent variables correlate with employee performance. Furthermore, increases or decreases in independent variables do significantly increases or decreases in dependent variable. The findings suggest that although employees in Hayleys Plantation are stressed with excessive workload, their stress level does not create negative consequences but has a strong positive effect towards employee performance. This result is in line with the findings of Puteh, Pane, and Alfiady (2021, 114) and Munisamy (2013, 1-79).

Similarly, the correlation between worklife balance and employee performance is in accordance with the study by Haralayya (2021, 252), which affirms that employees perform well when they experience flexibility within work and personal life. On the other hand, the study by Baba (2015, 221) for plantation employees goes parallel with the findings of the current study in which sound compensation and benefits package resulted in higher level of employee performance. Thus, the positive correlation between job security and employee performance represents the similar findings from Baba (2015, 221) confirming that employee perform well due to career growth and feeling of security on future existence of their career. In conclusion, occupational stress positively and significantly correlates with employee performance in Hayleys Plantation Sri lanka in which the similar positive relationship was confirmed by the previous studies undertaken by Asamoah-Appiah and Aggrey-Fynn (2017, 21-23), Siregar (2018, 337), and Munisamy (2013, 40-43).

Table 3. Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.910[a]	.817	.815	.18735
2	.903[b]	.815	.813	.19392

3	.965[c]	.931	.930	.11867
4	.946[d]	.895	.893	.14629
5	.978[e]	.956	.956	.09413

a. Predictors: (Constant), Excessive workload
b. Predictors: (Constant), Worklife balance
c. Predictors: (Constant), Compensation and benefits
d. Predictors: (Constant), Job security
e. Predictors: (Constant), Occupational stress

Table 3 demonstrates that 81.7%, 81.5%, 93.1%, 89.5% and 95.6% of the variance of dependent variable (employee performance) describes by the independent variables.

Table 4. Regression Analysis Results

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.171	.161		1.062	.292
	Excessive workload	.941	.048	.910	19.447	.000
	(Constant)	.054	.174		.307	.760
	Worklife balance	.989	.053	.903	18.648	.000
	(Constant)	.135	.097		1.390	.168
	Compensation and benefits	.952	.029	.965	32.567	.000
	(Constant)	.165	.121		1.358	.178
	Job security	.955	.037	.946	25.902	.000
	(Constant)	-.192	.084		-2.280	.025
	Occupational stress	1.058	.025	.978	41.618	.000

a. Dependent Variable: Employee performance

The regression analysis shows the positive relationship between independent and dependent variables which were confirmed by coefficients of determinations (r2) 0.910, 0.903, 0.965, 0.946, 0.978 that explained 91.0%, 90.3%, 96.5%, 94.6%, and 97.8 % variation. As shown in Table 4, relationships between independent and dependent variables were significant at 0.000 which are less than the chosen significance level of 1% (0.01). Consequently, it can be concluded that there is a significant positive impact of occupational stress on employee performance at 1% significant level.

Hence, all null hypotheses were rejected, and all alternative hypotheses were accepted, confirming the positive relationship between occupational stress and employee performance.

- ✓ **H_a1 –** There is a significant impact of excessive workload on employee performance.
- × **H01** –There is no significant impact of excessive workload on employee performance.

- ✓ **Ha2** – There is a significant impact of work-life balance on employee performance.
- × **H02** – There is no significant impact of work-life balance on employee performance.

- ✓ **Ha3** – There is a significant impact of compensation and benefits on employee performance.
- × **H03** – There is no significant impact of compensation and benefits on employee performance.

- ✓ **Ha4** – There is a significant impact of job security on employee performance.
- × **H04** – There is no significant impact of job security on employee performance

- ✓ **Ha –** There is a significant impact of occupational stress on employee performance.
- × **H0-** There is no significant impact of occupational stress on employee performance.

5. Discussion and Conclusion

The main aim of the current study was to identify the impact of occupational stress on employee performance in Hayleys Plantation Sri Lanka. Accordingly, the main research question was developed in order to address the aim of the research which stated that "Is there a significant impact of occupational stress on employee performance in Hayleys Plantation Sri Lanka?". To answer this question, the current research collected quantitative data from 81 employees working at Hayleys Plantation. The collected and analysed quantitative data affirmed that there is a significant positive impact of occupational stress on employee performance in Hayleys Plantation Sri Lanka ($r = .978$, $p < .01$).

5.1 Limiattion and future reseeach

The current research has few limitations. First, the present study was limited to one major plantation company and its population which further narrowed down the study area since the researchers couldn't reach more population in other renowned plantation companies to collect more data. Secondly, the researchers only considered 4 occupational stress factors which were derived from two models of occupational stress to determine the relationship between work stress and employee performance. Finally, it was challenging to find similar explanatory or causal research previously done in Sri Lankan context in which limited literature was found from other developed and developing countries.

These findings of the study are believed to be helpful for plantation companies to understand the main occupational stress factors which directly impact on level of employee performance. Further, it will contribute organisations to plan, evaluate, and solve stress-related issues for further areas of improvement. On the other hand, these findings provide important insights to authors and future researchers to focus on eustress and its positive impact on employee performance in plantation industry Sri lanka. At the same time, future researchers can focus on carrying out mixed methodological research to obtain both quantitative and qualitative data.

5.2 Conclusion

In conclusion, we propose in-depth consideration of positive and negative work-related stress and its different impacts on employee performance in different country settings. Furthermore, we believe that the current research findings will encourage researchers to undertake more plantation industry research and evaluations on theories of work stress and employee performance due to the importance of considering occupational stress and employee performance in the workplace environment.

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