

## **Employee Green Behaviour of Selected Hotels in Polonnaruwa Area of Sri Lanka**

**W. M. S. M. B. Weerakoon**

*Research Student, Department of Management, Faculty of Commerce and Management,  
Eastern University, Sri Lanka  
[sasitha92m@gmail.com](mailto:sasitha92m@gmail.com)*

**T. Sellar**

*Assistant Lecturer, Department of Management, Faculty of Commerce and Management,  
Eastern University, Sri Lanka  
[treshal.slr@gmail.com](mailto:treshal.slr@gmail.com)*

**A. Anton Arulrajah**

*Senior Lecturer, Department of Management, Faculty of Commerce and Management,  
Eastern University, Sri Lanka  
[aantonarulrajah@yahoo.com](mailto:aantonarulrajah@yahoo.com)*

**Abstract**

Employee green behaviour (EGB) contributes significantly to creating and sustaining eco-friendly hotels. EGB can be explained as the best way to contribute all employees to conserve natural environment. Natural environment directly affects the growth and survival of hotel industry. In this context, EGB in hotel industry is more important than other industries. Hence, objectives of study were to identify the level of EGB in selected hotels as well as to find out whether there is any difference in the level of EGB based on gender, age groups and education levels of employees. Data collected from 200 respondents through a questionnaire was analyzed by using descriptive statistics, independent samples t-test as well as ANOVA test. This study revealed that there is a high level of EGB among the employees in the surveyed hotels. There are no significant differences in the level of EGB by gender and age of employees while the level of EGB is significantly varying by their education levels of the employees.

**Key Words:** Age, Education, Employee Green Behaviour, Gender, Hotel, Sri Lanka

**Introduction**

The tourism industry has been one of growing industries in Sri Lanka since the independence from the British in 1948. Sri Lanka has been able to attract foreign investors and tourists to the island because of its natural beauty, climate and the geographical location. Hence, these days most of the organizations in the world are getting more concerned with the environmental issues such as climate change, global warming, environmental pollution and energy crisis. They are facing these issues in a sustainable manner that includes environmental management system, cleaner production, implementing environmental strategies and encouraging employee green behaviour with the expectation of dealing with the above issues.

The employee green behaviour (EGB) is a growing trend and it is explained as the scalable conducts/behaviours of employees which are connected with and contributed to enhance environmental sustainability (Ones and Dilchert, 2012a). Thus, the hotel industry tries to sustain in the current business world using these employee green behaviour strategies such as recycling paper, printing double side, avoiding unnecessary electricity usage, using personal cups instead of disposable cups, using stairs instead of elevators and using many other ways to reduce the wastage of resources in organizations. Also the tourists prefer to stay in hotels with natural beauty surrounding and in the hotels which give more importance to green behaviour and green practices. Hence the organizations in today's globalized and competitive environment are more concerned with the natural environment (Jabbour and Beatriz, 2016).

The employee green behaviours are an essential element of organizational environmental sustainability (Andersson, Jackson, and Russell, 2013). In modern business world, most of the organizations are concerning about environmental sustainability. Employee green

behaviour is one of the several ways employees can contribute to protect the environment (George and Jayakumar, 2020). Hence, employee green behaviour has been a major part and best way to achieve environmental sustainability. Organizations are also more concerned about the reduction in environmental footprint of their operations and it behooves in sustainability initiatives (Wiernik, Dilchert, and Ones, 2016). So, today new companies are adopting new environmental management practices and systems (Jabbour and Beatriz, 2016) and they are seeking employees with good sound knowledge on environmental motivation and green behaviours.

Although employee green behavior is a growing trend in the current business world, Sri Lankan people are giving less importance to reduce the environmental pollution due to the lack of awareness regarding the value of green behaviour, incapability of recruiting employees with good green practices and limited measurement tools. So, this matter needs to be focused and the level of employee green behaviour needs to be investigated. According to Blok, Wesselink, Studynka, and Kemp (2015), research works related with employee green behaviour in the workplace are not sufficiently considered in the field of organizational behaviour. Thus, it is not surprising that organizations are seeking to understand how employees' behaviours at work affect the natural environment and which personal characteristics lead to good and poor environmental performance at the individual level.

Therefore, the demographic factors of the employees need to be considered in recruitment and training in an organization, as those factors have a considerable impact on the individual's behaving pattern which could affect the organization's productivity and goodwill. Based on the previous empirical studies on green behaviour, it is stated that the demographic variables would influence individual green behavior (Dumont, Shen and Deng, 2016). Therefore, the present research study aims to investigate the employee green behaviour in terms of gender, age and level of education of the sample. Moreover in Sri Lankan context, very few studies have been done on employees' green behaviour in hotel industry. Hence, this paper could fill the empirical knowledge gap in the literature. Accordingly, there is an emerging need or a research gap which stimulates to conduct the current study. Hence, the objectives of this paper were:

1. to identify the level of employee green behaviour of selected hotels,
2. to investigate whether there is any difference of employee green behaviour based on gender of employees,
3. to investigate whether there is any difference of employee green behaviour based on age of employees, and
4. to investigate whether there is any difference of employee green behaviour based on the education levels of employees.

Thus, this paper tries to achieve the above mentioned four objectives systematically. Rest of this paper is organized in support of the related literature, study methodology, results, discussion, and conclusion, contribution of the study, recommendations and its limitations of the study.

## Literature Review

Literature review of this study reviewed the previous research works related with employee green behaviour, the dimensions of employee green behaviour and association of gender, age and education levels of employees with green behaviour.

### Employee Green Behaviour

According to the report of ensuring sustainability in Sri Lanka's hotel industry (International Finance Corporation Group of World Bank, 2013), Sri Lanka's hotel industry is a key driver of economic growth in the island nation. The government of Sri Lanka is implementing a master plan that envisages the arrival of million tourists in the future. This will place a huge strain on resources, especially energy and water, and will create immense challenges in the efficient use of these resources and recycle waste with greater efficiency.

According to Opatha (2015), every organization is in need of making all its employees green. Organizations cannot become sustainable as well as environmentally friendly organizations without the support and contributions of employees (Opatha, 2013; Opatha and Arulrajah, 2014; Opatha, 2019). Employee green behaviours which are congruent with environmental sustainability goals of an organization. This behaviour is defined as scalable actions and behaviours of employees which are connected with and contributed to enhance environmental sustainability (Ones and Dilchert, 2012a). As 'scalable actions and behaviours', they can vary in terms of how frequently or proficiently employees perform them, and these scalable actions and behaviours allow each employee's contribution to be counted (McConnaughy, 2014). Employee green behaviour can be considered as a part of job performance and may be either mandatory or voluntary, depending on the characteristics of jobs or works in the organizations (Campbell and Wiernik, 2015; Arulrajah, Opatha, and Nawaratne, 2015). According to Tian, Zhang, and Li (2019), employee green behaviour is nature friendly actions and activities of employees in the organizations and it is important to convert an organization's basic initiatives into best permanent strategic practices.

Employee Green Behaviour (EGB) is defined as the real behaviours of employees in the organizations which contribute to reduce the harmful effect or increase the constructive waves on natural environment (Thevanes and Arulrajah, 2016; Thevanes and Arulrajah, 2020; Opatha and Kottawatta, 2020a; Opatha and Kottawatta, 2020b). Simply, employee green behaviour is the behaviour of human beings to reduce harm to the natural environment. These behaviours can be performed for the benefit or success of the organization or as a requirement of the government. EGB includes activities such as saving energy, using resources efficiently, avoiding waste, recycling and conserving water (Norton, Parker, Zacher, and Ashkanasy, 2015; Ones and Dilchert, 2012b). Most organizations are engaged in reducing their environmental footprints in order to reduce their negative environmental impacts of business activities (Sharma and Sharma, 2011). The employee green behaviour is a key employee behaviour in the workplace in the context of greening organizational behaviour (Vinojini and Arulrajah, 2017).

In order to classify employee green behaviour, Ones and Ditcher (2012a) had developed a model that consists of five types of main classifications such as working sustainably,

avoiding harm, conserving, influencing others and taking initiative. This was a result of critical incident methodology.

### **Working Sustainably**

Working sustainably represents behaviors that help work processes and products to be more sustainable and it includes four categories such as choosing responsible alternatives, changing how work is done, creating sustainable products and processes, and embracing innovation for sustainability (Ones and Dilchert, 2012a). These behaviours engage in as a way of improving the environmental sustainability of work products and processes.

### **Avoiding Harm**

Behaviors can either harm the nature or cause increasing damage, or can enhance the nature, making its ecosystems healthier. The avoiding harm meta-category is bipolar and contains three categories; preventing pollution (e.g., treating hazardous waste properly), monitoring environmental impact (e.g., tracking emissions from factory operations) and strengthening ecosystem (e.g., planning trees around the factory environment) (Ones and Dilchert, 2012a).

### **Conserving**

The conserving indicates a category that represents behaviours related to preserve resources and reduce or eliminate waste (Ones and Dilchert, 2012a). Conserving includes four types such as (1) reducing use, (2) reusing, (3) repurposing and (4) recycling and it reflects the behaviours related with protecting resources and reduce waste (Ones and Dilchert, 2012a). Reducing use prevents the unnecessary use of new materials. Reusing involves multiple uses of the same materials for the same purpose, while repurposing involves multiple uses of materials for new purposes. Recycling allows to convert old materials to become new products, but requires energy and additional resources to do so.

### **Influencing Others**

Influencing others describe how individuals can encourage each other to participate in environmental fortification behaviours. According to Ones and Dilchert (2012a), psychologically encouraging other is associated with diffusing knowledge and supporting others change their behaviours and it is the only category that is unambiguously social and influence can extend to other stakeholders in the organization. Encouraging and supporting others are the two subdivisions of influencing others. Also it includes educating and training for sustainability which includes behaviors that help others build their knowledge about environmentalism. Further, employee behaviours from this domain include teaching, mentoring, leading, encouraging, and supporting.

### **Taking Initiative**

Taking initiative is considered as behaviours which involve pro-actively initiating new behaviours or making personal sacrifices for sustainability. Taking initiative consists of three categories such as initiating programs and policies (e.g., establishing an energy reduction policy) lobbying and activism (e.g., arguing for environmental issues on board), and putting environmental interests first (e.g., rejecting an environmentally unfriendly project) (Ones and Dilchert, 2012a).

## Hypotheses Development

### Employee Green Behaviour and Gender of the Employees

The shift toward a greener economy is creating new jobs and professions and adding new responsibilities to existing jobs and professions to implant environmental sustainability as a main part of job performance (Dierdorff, Norton, Gregory, Rivkin, and Lewis, 2013; Arulrajah, Opatha, and Nawaratne, 2015). Thus, it is not surprising that organizations are seeking to understand how employees' behaviours at work affect the natural environment and which personal characteristics lead to good and poor environmental performance at the individual level. Accordingly employees' gender, age and education level play a vital role in measuring the level of employee green behavior. Research finding of Klein, D'Mello, and Wiernick (2012) indicated that gender is weakly linked with employee green behaviour. Considering the level of green behaviour of the gender of the respondents, both male and female employees possess high level of green behaviour. However, comparatively female has a slightly higher mean value than male (Weerarathna, Jayarathna, and Pintoe, 2017). Similarly, another previous research study proved that females possess strong environmental/green behavior than men (Luchs and Mooradian, 2012). But this case may differ in other social contexts or samples. According to Saifulina and Carballo-Penela (2016), gender of an employee influences his/her green behaviour in the work places. Therefore, this paper focused to investigate whether employee green behaviour varies based on the gender of employees really and the hypothesis has been developed as:

*H<sub>1</sub>: The level of employee green behaviour is significantly varied by the gender of the employees.*

### Employee Green Behaviour and Age of the Employees

Subsequent analysis of the studies included in the largest and most recent review does serve to highlight relationship between age and employee green behavior (Norton, Parker, Zacher and Ashkanasy, 2015). When concerning about the age of the employees in measuring the level of green behaviour, older workers are often characterized as inflexible, unwilling to adopt new habits, and unable to learn new skills (Dennis and Thomas, 2007). Hence the older individuals are less environmentally-concerned in their working patterns. For an example, not willing to use tablets instead of using papers, traveling to meetings instead of using video conferencing are some of the practices. This means that there is a negative effect on employee green behaviour based on older workers. Research finding of Klein, D'Mello, and Wiernick (2012) indicated that employee age is weakly connected with green behaviour. On the other hand, older adults are more motivated to value stinginess by being economical and avoiding waste (Wiernik, Dilchert and Ones, 2016). This is relevant to environmental sustainability as environmental initiatives often focus on recycling, avoiding waste and conserving resources (Ones and Dilchert, 2012b). Then, a positive effect of aging on environmental values might be effectively utilized by having older employees lead the way in communicating and championing green initiatives (Wiernik, Ones, and Dilchert, 2013). Therefore, with the empirical evidence and own reasoning the following hypothesis has been formulated:

*H<sub>2</sub>: The level of employee green behaviour is significantly varied by the age of the employees.*

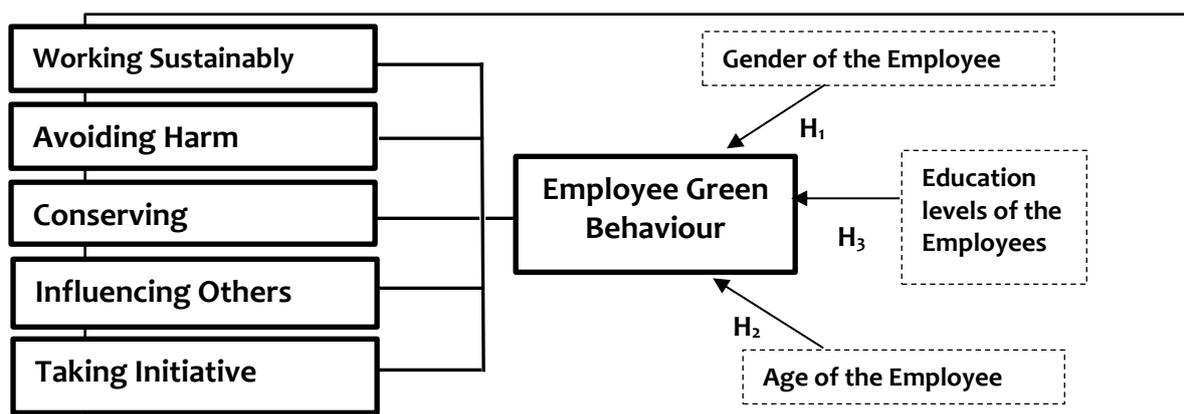
### Employee Green Behaviour and Education Levels of the Employees

Indeed, previous research has identified education as an important determinant of environmentally-friendly behaviors. Ortega-Egea, García-de-Frutos and Antolí'n-Lo'pez, (2014) found that there is a positive association between education and pro-environmental behaviors. Further, a recent study has shown that promoting universal education can be an effective mean not only to alleviate poverty and to foster economic growth in developing countries, but also in reducing vulnerability to climate change (Muttarak and Lutz, 2014). Research finding of Klein, D'Mello, and Wiernick (2012) indicated that education is weakly correlated with employee green behaviour. In the Sri Lankan context, Weerarathna, Jayarathna, and Pintoe (2017) found that when the level of education gets increased the level of green behaviour also gets increased. In line with the above arguments and empirical findings in the literature, the following hypothesis has been developed:

*H<sub>3</sub>: The level of employee green behaviour is significantly varied by the education levels of the employees.*

As the study was based on employee green behaviour of the employees in hotel industry in Polonnaruwa Area, the authors selected five dimensions to measure the level of employee green behaviour such as working sustainably, avoiding harm, conserving, influencing others and taking initiative. Also the authors concern whether the personal characteristics influence to enhance employee green behaviour. Therefore, the conceptual framework (see Figure 1) for the current study is supported by Ones and Dilchert (2012a) in the previous literature.

**Figure 1. Conceptual Framework**



Sources: Ones and Dilchert (2012a; 2012b)

### Methodology

A research methodology explains the research purposes, activities, procedures, measurements and applications (Hernandez, Perez, and Rangel, 2016). Thus, this section of the paper could be used to achieve the research objectives systematically. The researchers gathered the data using a survey strategy with association of the deductive approach.

### **Sampling and Sample Size**

Population includes the entire group of people; event or things of interest that the researcher wishes to investigate (Sekaran, 2010). In this paper, the population was the employees of two selected hotels in Polonnaruwa Area of Sri Lanka. Relatively, selected two hotels are highly practicing green concept in their operations as well as other initiatives when compared with other hotels in that particular area of Sri Lanka. This was the main reason to select the employees of these two hotels. Among the 300 employees, only 250 employees were selected as the sample of the study by using proportionate stratified random sampling method. In a proportionate stratified method, the sample size of each stratum is proportionate to the population size of the stratum, so that this sampling technique works well for populations with a variety of attributes.

### **Measures and Data Collection Method**

The employee green behaviour was measured by a 36 item scale with five dimensions (see Figure 1), which was found to be reliable and valid in a previous study (Ones and Dilchert, 2012a; McConaughy, 2014). It was 5-point Likert scale with 1 for 'strongly disagree' and 5 for 'strongly agree' and the mean scores of five dimensions indicated the variable. In this paper it had a Cronbach's Alpha of 0.701. The data was collected from the selected sample using the questionnaire method over a period of three months. For this current study, a well-structured questionnaire which consists of 36 questions items was used as research instruments for data collection from respondents.

### **Procedure**

To gain support for the study, all levels of employees in the selected organizations were contacted with the permission of the managers and a structured questionnaire with 36 items was distributed to each person in order to gather the relevant data. A follow up call was taken to the managers as a reminder after few days. Nearly 210 employees responded and gave support for the study. Questionnaires were gathered by the researchers from the employees confidentially. As the researchers have used a questionnaire method, few responses (10 responses) were rejected due to the improper way of answering and incompleteness.

### **Data Analysis Technique**

Mean and standard deviation were used to analyze the level of employee green behaviour in the surveyed hotels and the investigation of any difference in the level of employee green behaviour based on gender, age and education levels of the respondents were analyzed through independent samples t-test and ANOVA using SPSS (Version 22.0).

## **Results**

### **Respondent Profile**

The final composition of the sample comprised respondents from Hotel Sudu Araliya (57% from the population) and Girithale Hotel (65%) in Polonnaruwa Area of Sri Lanka. Majority of the respondents are males (77.5%) working in the selected hotels in Polonnaruwa Area. Also most of the respondents' age is between 31- 40 (34%) and only 1% of employees are above the age of 61. About 58.5% of respondents are married while 41.5% being single. Of

the sample, 43% of the respondents have at least G.C.E. O/L qualifications while very few are less than G.C.E. O/L.

### Level of Employee Green Behaviour

The variable of employee green behaviour includes five dimensions which are working sustainably, avoiding harm, conserving, influencing others and taking initiative. All the variables were measured using 5-point Likert scale where 1= strongly disagree and 5 = strongly agree. Internal reliability values of the scale for this study variables are working sustainability, avoiding harm, conserving, influencing others, taking initiative and overall employee green behaviour are 0.758, 0.719, 0.753, 0.721, 0.751 and 0.701 respectively. The degrees of the level of these variables were measured using the mean value and standard deviation (see Table 1).

**Table 1. Descriptive Statistics for the Level of Employee Green Behaviour**

Dimensions	Mean	Standard Deviation
Working Sustainably	4.10	0.401
Avoiding Harm	4.14	0.365
Conserving	4.24	0.340
Influencing Others	4.03	0.413
Taking Initiative	4.02	0.433
<b>Employee Green Behaviour</b>	<b>4.11</b>	<b>0.297</b>

(Note: Mean value range:  $1 \leq X \leq 1.80$ : Very Low,  $1.80 < X \leq 2.60$ : Low,  $2.60 < X \leq 3.40$ : Moderate,  $3.40 < X \leq 4.20$ : High, and  $4.20 < X \leq 5.00$ : Very High: Source: Masri and Jaaron, 2017)

Table 1 gives that the overall mean value of the employee green behaviour is 4.11 with 0.297 standard deviation. Hence, the level of employee green behaviour of surveyed hotels is in high level.

### Independent Sample t Test and ANOVA

In order to test the 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> hypotheses formulated of this paper, the researchers have used the independent sample t test and ANOVA to investigate how the employee green behaviour varies with the gender, age and education levels of employees of selected hotels in Polonnaruwa Area of Sri Lanka. Results of the analysis are summarized in Tables 2 to 7. Table 2 provides useful group statistics for the two groups (male and female), including the mean and standard deviation.

**Table 2. Group Statistics: Employee Green Behaviour and Gender**

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Employee Green Behaviour	Male	155	4.0904	.29632	.02380
	Female	45	4.1619	.29499	.04397

Table 3 provides the actual results from the independent t-test.

**Table 3. Independent Samples t-Test**

		Level of Employee Green Behavior	
		Equal variances assumed	Equal variances not assumed
Levene's Test for Equality of Variances	F	.001	
	Sig.	.977	
t-test for Equality of Means	T	-1.427	-1.430
	Df	198	71.794
	Sig. (2-tailed)	.155	.157
	Mean Difference	-.07152	-.07152
	Std. Error Difference	.05013	.05000
	95% Confidence Interval of the Difference	Lower	-.17037
Upper		.02733	.02817

Table 3 shows that the group means are not statistically significantly different because the value in the 'Sig. (2-tailed)' row is not less than 0.05. Looking at the Group Statistics Table 2, it indicates that male has relatively lower mean value in green behaviour when compared with female. However, it is not statistically significant.

The descriptive Table 4 (see below) provides descriptive statistics including the mean, standard deviation and 95% confidence intervals for dependent variable (employee green behaviour) for each separate age group (Less than 20, 21-30, 31-40, 41-50, 51-60, and above 61), as well as when all groups are combined (total). These figures are useful for describing and explaining the findings.

**Table 4. Descriptive Statistics: Employee Green Behaviour and Age Groups**

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Less than 20	12	4.0778	.21754	.06280	3.9396	4.2160	3.67	4.47
21-30	62	4.0995	.27416	.03482	4.0298	4.1691	3.55	4.63
31-40	68	4.0888	.28737	.03485	4.0193	4.1584	3.44	4.70
41-50	42	4.0819	.31514	.04863	3.9837	4.1801	3.52	4.65
51-60	14	4.2695	.38610	.10319	4.0466	4.4925	3.48	4.82
above 61	2	4.4733	.42426	.30000	.6615	8.2852	4.17	4.77
<b>Total</b>	<b>200</b>	<b>4.1065</b>	<b>.29679</b>	<b>.02099</b>	<b>4.0651</b>	<b>4.1479</b>	<b>3.44</b>	<b>4.82</b>

**Table 5. ANOVA: Employee Green Behaviour and Age Groups**

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	.701	5	.140	1.616	.158
Within Groups	16.828	194	.087		
<b>Total</b>	<b>17.529</b>	<b>199</b>			

Table 5 shows the output of the ANOVA analysis and whether there is a statistically significant difference between age group means. According to Table 5, the significance value is 0.158 (i.e.,  $p = 0.158$ ) which is not below 0.05 and, therefore, there is no statistically significant difference in the mean value of level of employee green behaviour between the different age groups of employees in the surveyed hotels.

The descriptive Table 6 (see below) provides descriptive statistics including the mean, standard deviation and 95% confidence intervals for dependent variable (employee green behaviour) for each separate level of education group (Less than O/L, G.C.E O/L, G.C.E A/L, Certificate level, Diploma level, Degree level and Postgraduate level), as well as when all groups are combined (total).

**Table 6. Descriptive Statistics: Employee Green Behaviour and Levels of Education**

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Less than O/L	4	3.6483	.22107	.11053	3.2966	4.0001	3.48	3.97
G.C.E O/L	86	3.9867	.25306	.02729	3.9325	4.0410	3.44	4.47
G.C.E A/L	32	4.0348	.23310	.04121	3.9507	4.1188	3.64	4.59
Certificate level	33	4.1877	.25429	.04427	4.0975	4.2778	3.73	4.70
Diploma level	29	4.2600	.22225	.04127	4.1755	4.3445	3.83	4.63
Degree level	13	4.5103	.11041	.03062	4.4435	4.5770	4.31	4.65
Postgraduate	3	4.7889	.02694	.01556	4.7220	4.8558	4.77	4.82
<b>Total</b>	<b>200</b>	<b>4.1065</b>	<b>.29679</b>	<b>.02099</b>	<b>4.0651</b>	<b>4.1479</b>	<b>3.44</b>	<b>4.82</b>

**Table 7. ANOVA: Employee Green Behaviour and Educational Group**

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	6.655	6	1.109	19.685	.000
Within Groups	10.874	193	.056		
<b>Total</b>	<b>17.529</b>	<b>199</b>			

Table 7 shows the output of the ANOVA analysis and whether there is a statistically significant difference between educational group means. We can see that the significance value is 0.000 (i.e.,  $p = 0.000$ ) which is below 0.05 and, therefore, there is a statistically significant difference in the mean value of level of employee green behaviour between the different educational groups of employees in the surveyed hotels.

### Discussion

The first objective of this paper is to identify the level of employee green behaviour of selected hotels in Polonnaruwa Area of Sri Lanka and that has been observed by using univariate analysis. Accordingly, the level of employee green behaviour of the employees working in the selected hotels is 4.11, hence employee green behaviour is in high level. According to Weerarathna, Jayarathna, and Pintoe (2017), there is high level of employee green behaviours in Sri Lanka manufacturing than service sectors. Moreover, they confirm that employees of manufacturing sector (mean = 3.93) are greener than the employees in the service sector (mean = 3.42). However, the finding of this paper indicates that there is a high level of employee green behaviour (mean = 4.11) in the surveyed hotels in Polonnaruwa Area of Sri Lanka whereas hotel industry belongs to the service sector. The finding of this paper contradicts with the findings of Weerarathna et al, (2017).

As the second objective of this study (first hypothesis) is to investigate whether there is any difference of employee green behaviour based on gender of employees, for this the researchers have used independent samples t-test as the analyzing technique. Table 3 clearly illustrates that there is no significant difference between gender and employee green behaviours ( $p$ -value = 0.155).

However, as per descriptive statistics, the finding of this paper is similar to the findings of Weerarathna, Jayarathna, and Pintoe (2017), whereas their study indicates that the employee green behaviours of female employees (mean = 3.69) are slightly higher than the male employees (mean = 3.60) in manufacturing and service sectors in Sri Lanka. This study also reflects similar finding (see Table 2) in the surveyed hotels. On the other hand, in this paper, independent samples t-test proves that there is no significant difference between gender and employee green behaviours.

Moreover, the finding of this paper contradicts with the findings of Saifulina and Carballo-Penela (2016). According to their findings, females tend to perform environmentally friendly behaviours at work places more than males do ( $p < 0.05$ ). Particularly, some personal characteristics associated with females such as empathy, caring others, perspective taking and altruism, and helping mind could explain why female employees perform more green behaviour than males do (Kark and Waismel-Manor, 2005; Kidder, 2002). Apart from these, other studies indicate that females have more knowledge and are competent than males in encouraging corporate social responsibility in their organizations (Seto-Pamies, 2015).

Also the third objective of the current study (second hypothesis) is to investigate whether there is any difference of employee green behaviour based on age of employees and researchers have used ANOVA test (see Table 5). Hence the  $p$  value of the results is greater than 0.000 ( $p$ -value = 0.158), it is obvious that there is no significant difference between

age and employee green behaviours. According to Norton et al., (2015), age is positively affected to the employee green behaviours and they concluded that the older employees have high level of employee green behaviours. Moreover, researchers have also suggested that older individuals' supposed unwillingness to change habits is a key barrier to pro-environmental behavior in aging population (Pillemer, Wells, Wagenet, Meador and Parise, 2011), suggesting that older individuals may see less need for environmentally-responsible actions where these findings are almost different from the current study.

Further, the result of the current study is consistent with a recent meta-analytic investigation of environmental behaviors in non-work settings that suggests that age differences in employee green behaviors are likely to be small (Wiernik et al., 2013).

Final objective of the current study (third hypothesis) is to investigate whether there is any difference of employee green behaviour based on the education levels of employees. As per the results of ANOVA test ( $p$ -value = 0.000), it is evident that the employee green behaviour is different based on their education levels. More specifically, employees who are educated up to postgraduate have highest level of employee green behaviours (mean = 4.7889) and employees educated less than G.C.E O/L have lowest level of employee green behaviour (mean = 3.6483). The findings of this paper could be supported by the findings of Hoffmann and Muttarak (2017), where they found that education positively influences to the propensity to undertake employee pro-environmental behaviours and another research finding states that employees who are educated up to doctoral degree have highest level of green behaviours while lowest value is for employees educated up to only high school (Weerarathna, Jayarathna, and Pintoe, 2017).

### **Conclusion**

According to the descriptive analysis results, mean value of employee green behaviour is 4.11 and it is deviated around 0.297 value. Hence, based on the decision rule, it could be concluded that there is a high level of employee green behaviour in the surveyed hotels in Polonnaruwa Area of Sri Lanka. Also this paper investigated that the employee green behaviour significantly does not vary based on the gender and age of the selected sample. However, there is a significant difference of employee green behaviour based on education levels of the employees of surveyed hotels.

### **Contribution of the Study**

Tourism industry plays a major role in Sri Lankan economy where it provides many job opportunities and earns foreign currency income to our country. Here, the local and foreign customers pay more attention towards naturally located hotels in the country. Thus, it is much more important to be aware and develop the skills and attitudes of employees to concern more regarding the green behaviour while giving a best service to attract the customers. As there was lack of researches made on this particular current issue in Sri Lankan context this study has fulfilled this gap by studying the level of employee green behaviour and the selected personal factors (gender, age and education) which could vary the green behaviour of employee in special reference to hotel industry. Also the current study is an evidence to substantiate that there is high level of employee green

behaviour in the surveyed hotels, which could be used by other researchers to study further in future.

### Recommendations and Limitations of the Study

Although the employee green behaviour of the selected sample is in high level, it is important to sustain in the industry by following the “going green” concept and improving the employees’ behaviour in such ways as:

- Advising, arranging programs and events regarding the advantages of the eco-project and how to carry on an eco-project by the management.
- Appreciating and providing more benefits for the employees who practice green behaviour.
- Set-up the minds of employees toward green behaviour and encourage them to raise their voice against environmental issues.
- Very especially the HR team of the hotels should concern more about the educational qualifications of the employees when recruiting the applicants.

As the limitations of the current study, it is possible to mention that only 200 as the number for the sample have been selected to conduct the study and it is limited to the Polonnaruwa Area of Sri Lanka. Also the study concern is only about EGB of the Sri Lankan hotel industry and this could be extended to other industries in future studies.

### References

- Andersson, L. Jackson, S. E. and Russell, S. V. (2013), Greening organizational behavior: An introduction to the special issue, *Journal of Organizational Behavior*, Vol. 34, No. 2, pp. 151-155. doi:10.1002/job.1854.
- Arulrajah, A. A. Opatha, H.H.D.N.P. and Nawaratne, N.N.J. (2015), Employee green performance of job: a systematic attempt towards measurement, *Sri Lankan Journal of Human Resource Management*, Vol. 6, No. 1, pp. 37-62.
- Blok, V. Wesselink, R. Studynka, O. and Kemp, R. (2015), Encouraging sustainability in the workplace: a survey on the pro-environmental behaviour of university employees, *Journal of Cleaner Production*, Vol. 106, pp. 55-67.
- Campbell, J. P. and Wiernik, B. M. (2015), The Modeling and Assessment of Work Performance, *Journal of Annual Review of Organizational Psychology and Organizational Behavior*, Vol. 2, pp. 47-74.
- Dennis, H. and Thomas, K. (2007), Ageism in the workplace. *Generations*, Vol. 31, Vol. 1, pp. 84-89.
- Dierdorff, E. C. Norton, J. J. Gregory, C. M. Rivkin, D. and Lewis, P. (2013), O\*NET's National Perspective on the Greening of the World of Work, In Huffman, A. H. and Klein, S. R. (eds), *Green Organizations, Driving Change with I-O Psychology*, 1<sup>st</sup> ed, Routledge: New York.
- Dumont, J. Shen, J. and Deng, X. (2016), Effects of Green HRM Practices on Employee Workplace Green Behavior: The Role of Psychological Green Climate and Employee Green Values, *Human Resource Management*, Vol. 56, No. 4. pp. 613-627.

- George, J. S. and Jayakumar, K.N. (2020), The demographics of employee green behaviour among IT Professionals, *International Journal of Scientific and Technology Research*, Vol. 9, No. 4, pp. 13-16.
- Hernandez, J. Perez, O. A. and Rangel, A. C. (2016), A Review of Research Methods in Strategic Management; What Have Been Done, and What is Still Missing. *Journal of Knowledge Management, Economics and Information Technology*, Vol. 6, No. 2, pp. 112-119.
- Hoffmann, R. and Muttarak, R. (2017), Learn from the Past, Prepare for the Future: Impacts of Education and Experience on Disaster Preparedness in the Philippines and Thailand, *World Development*, Vol. 96, pp. 32-51.
- International Fiancé Corporation Group of World Bank. (2013), Ensuring Sustainability in Sri Lanka's Growing Hotel Industry, PricewaterhouseCoopers (Private) Limited, Sri Lanka and PricewaterhouseCoopers (Private) Limited, India (pp. 1-39). <https://www.ifc.org/wps/wcm/connect/45f2305d-6368-42da-bf42>
- Jabbour, C. J. and Beatriz, L. (2016), Green Human Resource Management and Green Supply Chain management; linking two emerging agendas, *Journal of Cleaner Production*, Vol. 112, pp. 1824-1833.
- Kark R. and Waismel-Manor, R. (2005), Organizational Citizenship Behavior: What's Gender Got To Do With It? *Organization*, Vol. 12, No. 6, pp. 889-917. DOI:10.1177/1350508405057478.
- Kidder, D.L. (2002), The Influence of Gender on the Performance of Organizational Citizenship Behaviors, *Journal of Management*, Vol. 28, No. 5, 629-648. DOI: 10.1177/014920630202800504.
- Klein, R. M. D'Mello, S. and Wiernick, B. M. (2012), Demographics and employee sustainability. In Jackson, S. E. Ones, D. and Dilchert, S. (eds), *Managing human Resources for Environmental Sustainability*, San Francisco: Jossey-Bass.
- Luchs, M. G. and Mooradian, T. A. (2012), Sex, Personality, and Sustainable Consumer Behaviour: Elucidating the Gender Effect, *Journal of Consumer Policy*, Vol. 35, No.1, pp. 127-144.
- Masri, H. A. and Jaaron, A. A.M. (2017), Assessing green human resources management practices in Palestinian manufacturing context: An Empirical Study, *Journal of Cleaner Production*, Vol. 143, pp. 474-489.
- McConnaughy, J. C. (2014), Development of an employee green behavior descriptive norms scale. *Electronic Theses, Projects, and Dissertations*, California State University, San Bernardino.
- Muttarak, R. and Lutz, W. (2014), Is education a key to reducing vulnerability to natural disasters and hence unavoidable climate change? *Ecology and Society*, Vol. 19, No. 1, p. 42. doi: org/10.5751/ES-06476-190142.
- Norton, T. A. Parker, S. L. Zacher, H. and Ashkanasy, N. M. (2015), Employee Green Behavior: A Theoretical Framework, multilevel review, and future research agenda, *Journal of Organization and Environment*, Vol. 8, No. 1, pp. 103-125. doi:10.1177/108602661557573.
- Ones, D. S. and Dilchert, S. (2012a), Employee Green Behaviors, In Jackson, S. Ones, D. and Dilchert, S. (eds), *Managing Human Resources for Environmental Sustainability*, San Francisco: Jossey-Bass, Retrieved from <http://site.ebrary.com/lib/csusb/docDetail.action?docID=10575604>

- Ones, D. S. and Dilchert, S. (2012b), Environmental Sustainability at Work: A Call to Action, *Journal Industrial and Organizational Psychology*, Vol. 5, No. 4, pp. 444-466.
- Opatha, H. H. D. N. P. (2013), Green Human Resource Management: A Simplified Introduction, *HR Dialogue*, Department of HRM, Faculty of Management Studies and Commerce, University of Sri Jayewardenepura, pp. 22-41.
- Opatha, H. H. D. N. P. and Arulrajah, A. A. (2014), Green Human Resource Management: Simplified General Reflections, *International Business Research*, Vol. 7, No. 8, pp. 101-112.
- Opatha, H.H.D.N.P. (2015), *Organizational Behaviour: The Human Side of Work*, Colombo: Department of HRM, University of Sri Jayewardenepura.
- Opatha, H.H.D.N.P. (2019), *Sustainable Human Resource Management: Expanding Horizons of HRM*, Colombo: Department of HRM, University of Sri Jayewardenepura.
- Opatha, H. H. D. P. J. and Kottawatta, H. (2020a), Green HRM and Environmental (Green) Attitude: Do Green HRM Practices of Sri Lankan Tiles Industry Affect to Determine the Environmental (Green) Attitudes of the Employees?, *International Journal of Management Excellence*, Vol. 15, No. 2, pp. 2207-2219.
- Opatha, H. H. D. P. J. and Kottawatta, H. (2020b), Impact of Green Attitude on Green Work Behavior: An Empirical Study of Employees in a Sri Lankan Tiles Manufacturing Company, *Asian Journal of Social Science and Management Technology*, Vol. 4, No. 2, pp. 1-7.
- Ortega-Egea J, M. Garcí'a-de-Frutos, N. Antolí'n-Lo'pez, R. (2014), Why Do Some People Do "More" to Mitigate Climate Change than Others? Exploring Heterogeneity in Psycho-Social Associations, *PLoS ONE* Vol. 9, No.9, e106645, pp. 1-17. doi:10.1371/journal.pone.0106645
- Pillemer, K. Wells, N. M. Wagenet, L. P. Meador, R. H. and Parise, J. T. (2011), Environmental Sustainability in an Aging Society: A Research Agenda, *Journal of Aging and Health*, Vol. 23, No. 3, pp. 433-453. doi: 10.1177/0898264310381278.
- Saifulina, N. and Carballo-Penela, A. (2016), Promoting Sustainable Development at an Organizational Level: An Analysis of the Drivers of Workplace Environmentally Friendly Behaviour of Employees, *Sustainable Development*, Vol. 25, No. 4, pp. 299-310, DOI: 10.1002/sd.1654
- Sekaran, U. (2010), *Research Methods For Business*. Southern Illinois University at Carbondale, United States of America.
- Setó-Pamies, D. (2015), The relationship between women directors and corporate social responsibility, *Corporate Social Responsibility and Environmental Management*, Vol. 22, No. 6, pp. 334-345. DOI:10.1002/csr.1349.
- Sharma, P. and Sharma, S. (2011), Drivers of proactive environmental strategy in family firms, *Business Ethics Quarterly*, Vol. 21, No. 2, pp. 309-334.
- Thevanes, N. and Arulrajah, A.A. (2016), The Relationships among Environmental Training, Environmental Attitude of Employee, Environmental Behavior of Employee and Environmental Orientation of Organization: A Review of Literature. *Proceedings of the 13<sup>th</sup> International Research Conference on Business Management (ICBM)*, University of Sri Jayewardenepura, Sri Lanka, pp. 416-438.
- Thevanes, N. and Arulrajah, A. A. (2020), Environmental Training and Environmental Orientation of Organization: The Mediating Role of Environmental Behavior of Employee, *Sri Lankan Journal of Human Resource Management*, Vol. 10, No. 2, pp. 46-62.

- Tian, H. Zhang, J. and Li, J. (2019), The relationship between pro-environmental attitude and employee green behavior: the role of motivational states and green work climate perceptions, *Environmental Science and Pollution Research*, Vol. 27, No. 2, pp. 1-12. <https://doi.org/10.1007/s11356-019-07393-z>.
- Vinojini, M. and Arulrajah, A.A. (2017), The Pro-Environmental Behaviour of Employee in an Apparel Manufacturing Organization in Nuwara-Eliya District of Sri Lanka, *Sri Lankan Journal of Human Resource Management*, Vol. 7, No. 1, pp. 1-17.
- Weerarathna, R.S. Jayarathna, D.Y. and Pintoe, A. (2017), Employee Green Behavior: A Case in Manufacturing and Service Sector in Sri Lanka, *International Journal of Academic Research in Business and Social Sciences*, Vol. 7, No.12, pp. 1095-1106.
- Wiernik B.M. Dilchert, S. and Ones D.S. (2016), Age and Employee Green Behaviors: A Meta-Analysis. *Frontiers in Psychology*, Vol. 7, pp. 194-211. doi: 10.3389/fpsyg.2016.00194
- Wiernik, B. M. Ones, D. S. and Dilchert, S. (2013), Age and environmental sustainability: A meta-analysis, *Journal of Managerial Psychology*, Vol. 28, No. 7, pp. 826-856. <https://doi.org/10.1108/JMP-07-2013-0221>