An empirical study on impact of employee green behaviour on employee well-being with mediating role of self-esteem in higher educational institutions using PLS SEM

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Abstract Environmental conservation and sustainable development are focus areas in various fields. Of late, researchers in HRM discipline, organizational behavior, and sustainability are focusing on the factors influencing green behavior. The study evaluated the perceptions of faculty members towards green behavior in educational institutions and also measured how these perceptions could impact their well-being in the workplace. The prime objective is to explore the connections between the green behavior of employees in the workplace, employee well-being, and self-esteem. The sample of the study consisted of faculty members from a higher educational institution in Chennai, Tamil Nadu, and 410 questionnaires were given out, with 385 accurate responses received online using Google Docs. Convenience sampling is a non-probabilistic methodology that collects data from members who are available to take part in research. Employee green behavior has an indirect impact on employee well-being and self-esteem, which is positively mediated between employee green behavior and employee well-being.

Keywords: India, ecological behaviour, employee well being, self-esteem

1. Introduction

Both academics and professionals who are in charge of formulating environmental policy around the world have come to the conclusion that human activities are at the basis of ecological dilemmas such as the diminution of natural resources, the growth of pollution, and the disappearance of animal and plant species (Mtutu and Thondhlana 2016; D. Renwick et al 2013; DWS Renwick 2018). Previous studies have noticed that the educational sector has placed marginal emphasis on environmental issues, particularly on promoting employee green behavior, an essentiality to enhance environmental performance. In the recent past, higher educational institutions globally have tried to adopt green initiatives and practices as a significant part of their services (Aboramadan 2020). Higher education institutions aspire to play an important role in exploring tactics and remedies to manage and mitigate present environmental threats while they are research and teaching institutions (Disterheft et al 2012; Leon-Fernandez and Domnguez-Vilches 2015). In addition, they should act as an example for others to follow in terms of reinvigorating environmental management and acknowledging the changing nature of the associated difficulties (Finlay and Massey 2012). So, academic institutions should adopt the "Go Green" ethos if they intend to foster a greener campus community (Gilai et al 2019). All employees, from professors to secretaries, would need to make an effort to lessen their impact on the environment in the course of their daily work. This encourages staff to reduce the negative impact on the environment by reducing wastage, recycling waste and used products, and reusing the products. Few researchers have focused on the employee perspective on employee awareness and attitude toward implementing green practices. HEIs are one of the enterprises with big offices, conference areas, and banquet rooms that consume more power (Gomez and Yin Yin 2019). Class rooms demand more electric power for illumination and cooling devices (Abdul-Azeez and Ho 2015). It produces more paper and plastic waste and more water waste for toilets. HE Its aim is to reduce carbon emissions and conserve energy by promoting a green office culture Aris et al (2018). Employee green behavior (EGB) entails actions taken by employees to facilitate the adoption and execution of environmentally friendly practices in the workplace (Y. Zhang et al 2019). Previous studies showed that the effective implementation of green practices depends on the effective participation of employees. EGB is viewed as a micro-activity to address environmental and social concerns, which is basically prosocial behavior (Xiang et al 2019; Zhang et al 2021). EGB is a workplace behaviour that employees undertake with the goal of preserving the environment and advancing the organization’s sustainable growth. These behaviours include resource
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conservation, waste management, acquiring ecological protection knowledge, and sustainable work. According to Mohamed et al ecological behaviour in the academic sector is essential to halt ecological deterioration and achieving excellent environmental performance, which has a knock-on social impact (Rubel et al 2020).

The present study investigates employee green behavior in higher educational institutions, the least explored topic in prior studies. The achievement of environmental goals can be secured by encouraging employees to work and act in an environmentally responsible manner through the execution of green human resource policies (Mishra 2017). From the existing studies, it is possible to hypothesize that emerging nations are beginning to recognize the significance of promoting environmentally responsible behaviors within their workforces. This is a topic that requires further exploration (Kimet et al 2019). Most of the researchers are paying attention to stimulating the workforce to inculcate pro-environmental behaviors (Afzar et al 2018; Norton et al 2015). The majority of the scholars have focused on the elements and circumstances that influence the facilitation and demonstration of EGB (Saleem et al 2020), but a few have investigated the effect of EGB on employees (Aboramadan 2022; Fawehinmi et al 2020; Norton et al 2015). Nevertheless, there is a lack of appreciation for the effect of green behavior on employee well-being. However, there is a lack of understanding regarding how employee green behavior affects employee well-being.

Past literature has evidenced that employees’ attitude and behavior are influenced by employee well-being, which occupies a significant role in organizational success. The greater employee well-being results in higher work productivity, which benefits the organization through enhanced employee participation and displays eco-behavior in the organization (Kamerde and Richardson 2018). A study on the connection between individual well-being and employee green behavior has become a significant research topic. Employee green behavior is the behavior that minimizes damage to the environment to the maximum extent or even benefits nature. In simple words, it has been described as promoting nature and avoiding its exploitation (Griskevicius et al 2010). Ecological behavior is essential to reducing pollution. There are four essential things to be implemented to reduce pollution: refuse the products that are not safe for nature, reduce waste, reuse things as much as possible, and recycle the waste in an appropriate way (Benton 2015).

This study provides an inclusive view of employee eco-behavior, its impact on the self-esteem of employees, and its influence on their well-being. This study primarily focuses on eco-behavior and self-esteem as outcomes of Green HRM and studies the correlation between these two variables. Secondly, the study explores the in-role, extra-role, and work-innovative behaviors of employees as possible outcomes of Green HRM. Thirdly, it explores self-esteem as an intervening variable between employee behavior and well-being. The remaining part of the article is arranged as follows: The review of literature is offered in the form of hypotheses; the stipulated hypotheses served as the basis for the conceptual framework; the methodology section came next; and the findings that were consequential were reported. At last, the article wraps up with a discussion of its ramifications and limitations.

2. Review of Literature and Theoretical background

2.1. Employee Green Behaviour

Ecological behavior refers to taking voluntary actions to reduce the harmful impact on the environment or to improve positivity in the environment (Erreygers et al 2019; environmental conservation) (Steg and Vlek 2009). Employee Green behavior deals with eco-friendly behavior, particularly at the workplace (Ramus and Killmer 2007). In the study of Larson and Almeida, subjective behaviors are envisaged by emotions (Ahmed et al 2020). Past research has explored the effect of employee well-being on the green behavior of employees (Erreygers et al 2019; Hwang and Hyun 2012). A higher level of employee well-being brings out better ideas and efforts in their job (Arla Day and Randell 2014). The advantageous and favorable outcome of EGB within organizations has drawn the attention of researchers not only in India but throughout the world. EGB, besides improving eco-performance in the organization, impacts individuals’ personalities. A study by Osbaldiston and Sheldon (2003) has portrayed that EGB helps to attain the objectives, not just in fulfilling the day-to-day workplace essentials but also to gain rewards and enhance work satisfaction. It is proven by Bauer and Aiman that EGB can promote a better career and that the employees individually also attain satisfaction by practicing green behavior (Talya Bauer Aiman-Smith 1996). By blending the available research, we can conclude that the earlier variables of green behavior are more affluent and emphasize individual elements, viz., self-efficacy, job satisfaction, and emotion, and contextual factors, viz., green HRM practices, green atmosphere, corporate social responsibility, and leadership behavior, whereas the resultant variable research chiefly emphasizes three aspects—organizational green performance, career development, and employee job satisfaction (Zhang et al 2021). Despite many studies showing the positivity of EGB on both the organization and the individual, until now, there has been no consensus on how to evaluate workers’ eco-friendly actions within the organization. Now there have emerged various types of EGB scales, of which the majority of the studies opt for definite measurement frameworks based on two facets: “diversities in actors and functional perspectives” (Zhang et al 2021). EGB can broadly be categorized into task-related behavior and voluntary behavior (Shen et al 2018). As reported by Norton et al (2015), task-related ecological behavior is nothing but the behavior of employees performing within the required job functions. Voluntary behavior involves personal initiative that surpasses organizational objectives.
A six-item scale on EGB was developed by Bissing-Olson et al (2013). Williams et al (1991) adapted the "in-role performance scale" and Frese et al developed the "personal initiative scale". EGB has three dimensions: eco-initiatives, eco-helping, and eco-civic management, which were contributed by Paillé and Boiral (2013). The next six-item green innovative work behavior scales were borrowed from Scott and Bruce (1994). Scott and Bruce's (1994) six-item scale was used to measure and determine innovative work behavior. Modifications were made to the scale by adding green-related terms to suit the needs of the study. An illustrative item was "I Investigate and Secure Funds Required to Implement New Green Ideas (Aboramadan 2022; Scott and Bruce 1994).

Bissing-Olson et al (2013) combined Williams et al (1991)'s employee's In-role performance scale with Frese et al.'s personal initiative scale to create two scales measuring employees' pro-environmental behavior: the 6-item regular "Task-Related Pro-Environmental Behavior" scale and the 12-item "Proactive Ecological Behavior" Scale for Employees like "Today, I adequately completed assigned duties in an eco-friendly way" (Freitas et al 2020). From an in-role green behavior perspective, Paillé and Boiral (2013) opined that EGB, based on In-role green behavior, comprises three dimensions: eco-civic engagement, eco-helping, and eco-initiatives, viz., "I actively participate in environmental events organized in and/or by my company" and "I encourage my colleagues to adopt more environmentally conscious behavior (Paillé and Boiral 2013; Zhang et al 2021). The aforesaid scales were improved using various standpoints firstly, on the basis of differences amongst the actors, viz, two types of scales one for individual employee practice and the other for organizational or employer opinion; and secondly on the basis of task oriented differences, improved through task related eco behavior scale and extra role eco behavior scale, that inspires peers to adopt eco-friendly behaviour, a mode to the employees to promote green behaviour whereas in-role green behaviour is the behaviour in which an employee's regular official duties that are required to be performed by him which are taken into consideration for performance appraisal like lessening usage of paper and its proper recycling (Zhang et al 2021). Extra-role green behavior is the behavior of an employee that is farther from his official performance than the desired roles to be performed by the employee in the performance appraisal (Paillé and Boiral 2013). Sharing ideas to enhance organizational environmental efficiency or motivating colleagues to inculcate green behavior at the workplace, like switching off electronic devices when not in use, switching off fans and lights after work, or informing the concerned about water leakages, etc., are a few of the extra-role green behaviors. To measure innovative work behavior, Scott and Bruce's 1994 six-item scale was adopted. Modifications were made to the scale to add green-related terms to suit the study. One such item was "I take initiatives to act in an eco-friendly way at work". This particular construct had a Cronbach’s alpha value of 0.877.

2.2. Employee Green Behaviour and Employee Well Being

The term "well-being" refers to the "psychological feelings" that people experience towards happiness and is also a process of avoiding pain (Zhang et al 2021). EWB focuses on the psychological well-being of employees at work, which reflects individual physical excitement and mental health satisfaction at work (Page and Vella-Brodrick 2009). Employee well-being is at a higher level because they put more effort into work and have positive attitudes towards work. Social exchange theory also supports the relationship between EGB and EWB. Behavior thoughts, inclusive leadership, and psychological capital bear a direct impact on employee well-being (Danna and Griffin 1999). Well-being consists of both mental and physical aspects. Distress, dejection, fatigue, anxiety, and illness are the mental aspects, whereas the physical aspects are back pain, muscle and joint pains, headaches, etc. (Sharma et al 2016; Talya Bauer Aiman-Smith 1996). There is a direct relationship between an organization’s success and its employees physical and psychological states. Therefore, enterprises should know how their activities and programs impact their employee’s well-being. Companies green initiatives convey a message to their associates about their concern for protecting nature, society, employees, and the interests of their stakeholders. Organizations can enhance positive eco-behavior in the organization by improving employee well-being (Farooq et al 2014). EGB, as one of the pro-social behaviors, creates a sense of satisfaction and meaningfulness for the employer, besides endorsing the organization’s sustainable development and that of the environment, thereby augmenting the employee's well-being. Thus, EGB paves the way for people to understand the true connotation of work and leading a contended life. On the other hand, if employees are indifferent and apathetic towards green development in the organization and lavish and make waste of the organization’s resources, their acts will be censured and reprimanded not only by the superiors but also by their colleagues, creating a mistrust in the organization as a whole towards its development and sustainability and resultantky lessening positive psychological and emotional experiences, dipping EWB, and furthermore creating negative emotions and attitudes. Contrarily, EGB can propel employees to put up with a variety of challenges and pressures at work through "pro-environmental and pro-organizational behavior", thus creating a greater sense of well-being in their minds. In conclusion, the subsequent hypothesis is proposed:

Hypothesis 1. Employee Green Behaviour is positively associated with Employee Well Being.

2.3. The mediating effect of self-esteem
As a constant individual characteristic feature of an individual, one's own overall optimistic self-appraisal is self-esteem (Leary and Baumeister 2000). Employees with high self-esteem have more confidence to deal with failure, the ability to face unforeseen changes, a belief in their own abilities, and the ability to adopt changes (Zhang et al 2021). In addition, self-esteem enhances the ability to manage pressure and fatigue.

Past literature supports the idea that self-esteem can mediate with other variables. Many studies have been conducted to investigate the connections between pleasure and self-esteem, which is one of the psychosomatic indicators of happiness (Dogan et al 2013). Rosenberg, in his study, concluded that self-esteem had both positive and negative attitudes towards oneself (Satuf et al 2018). Self-esteem, social exclusion (Arslan et al 2022), positive childhood and resilience (Izaddin 2019), "Emotional intelligence and Life satisfaction" (Zarei et al 2020), "psychological well-being and stress" (Xiang et al 2019), and "life satisfaction and depression" (Ivici 2010) are the significant intermediary variables. Self-esteem is both a positive and negative mindset towards oneself. "Positive" and "negative" items were arranged one after the other to minimize the respondent’s biased responses. While responding to the items, the reader may think of one item or another, but there is always a little suspicion about whether the items deal with one’s optimistic or pessimistic attitude.

While evaluating self-esteem, many scholars choose dichotomous approach. Dichotomous approach categorizes self esteem both high and low levels of self-esteem. A high self esteem is one in which one feels of his self having value whereas in low self esteem one thinks that he has no value and as such feel self-contempt and self-pity (Schultheisz and Aprile 2013). A very significant aspect that contributes to an individual’s level of self-esteem is the employee behaviour (EBG) that they exhibit in the workplace that is advantageous to the firm. Individuals can boost their self-esteem and get admiration from others if they volunteer their assistance to other people, organisations, or the community (Alavi and Aghakhani 2021; Erreygers et al 2019). Grube and Pillavin found that persons who volunteer regularly tend to get a deeper awareness of themselves over time, which in turn boosts their self esteem (Pillavin et al 2002). Employees perceived that greater level of self-esteem makes their work meaningful and make them capable to complete tasks (Zhang et al 2021). Self-esteem satisfies the basic inner needs of individuals. At the same time self-esteem provides autonomy to perform their roles in the organizations and can control their behaviour. Based on self-determination theory, self-esteem correspondingly increases employee well-being. If the level of self-esteem is low, thought having low confidence, low autonomy and feel that their work is meaningless and the inner needs are unmet (Patrick et al 2007).

Hypothesis 2. Employee Green Behaviour is significantly associated with self-esteem.

Self-esteem mediates between employee green behavior and well-being, according to Hypothesis 3. The intention of this research was to determine, through a systematic analysis of the available literature, whether or not EGB actually improves EWB. Based on the Social exchange theory, employees who adopt green behavior can enhance their self-esteem (Aboramadan 2020; Darvishmotevali and Altinay 2022), which in turn enhances the employee’s well-being. As a consequence of this, we arrive at the following hypotheses (Figure 1):

Hypothesis 3a. Self-esteem positively mediates with EGB.
Hypothesis 3b. Self-esteem positively mediates with EWB.

![Figure 1 Conceptual Framework.](https://www.malque.pub/ojs/index.php/msj)  

### 3. Research methods

For this study, we obtained the primary data. We collected data from full-time, regular faculty working in educational institutions. Responses were voluntarily collected from the respondents were received through online using google doc questionnaire. Convenience sampling is a non-probabilistic methodology that collects data from members who are available to take part in research. Structured questionnaires were distributed to 410 respondents during July and August 2022, and we collected their responses. Out of 410 responses, 25 were not taken into account due to incomplete answers during the data cleansing process, and finally, 385 responses were accepted.

**3.1. Measurement Scales**
Employee green behavior was measured using Bissing-Olson et al (2013) and Scott and Bruce's 12-item scale. The first part role behavior and consists of 3 items. The example scale item is "I adequately complete the assigned duties in an eco-friendly way". The second phase measure's extra-role behavior, which consists of 3 items, including the sample scale item "I take initiative to act in an eco-friendly way at work". The third part of the scale measures innovative work behavior and consists of six items. The sample item is "I investigate and secure the funds required to implement innovative green ideas".

The researcher adopted the scale for Self-esteem from Rosenberg and Zhang (2021), which has a uni-dimensional construct with no subvariables or subfactors to consider. Self-esteem was measured using a ten-item scale developed by Rosenberg, with the example item "I feel that I have a number of high-quality qualities".

Employee Well-being was measured using a nine-item scale developed by Zheng et al (2015). The first scale measures life well-being, which consists of three items; the sample item was "I can always find ways to enrich my work". The second scale measure of work well-being consisted of three items; the sample: "In general, I feel fairly satisfied with my current job". The third part of the scale was psychological well-being, consisting of three items such as "I feel I have grown as a person".

3.2. Statistical analysis

The approach adopted in this article was the PLS-SEM approach to evaluate the impact between variables and the correlation among latent constructs, as replicated by the inner model, relationship indicators, and latent variables (Kura 2016). Indirect effects based on bootstrapping techniques for path coefficients can be estimated through PLS-SEM.

3.3. Measurement model

To test the model as presented in tables 1 and 2, "Individual item reliability", internal consistency reliability", "convergent validity," and discrimination validity” were also employed to evaluate reliability and validity (Hair et al 2013). Yardstick for keeping items with loadings of 0.40 to 0.70 (Hair et al 2013; 2019). Out of 30 items, five were removed because they had values less than 0.4. 25 items with 0.515 to 0.952 were retained. Composite reliability was used to evaluate internal consistency reliability; each latent construct’s composite reliability coefficient should be greater than 0.70. The below table 1 depicts the composite reliability ranging between 0.952 and 0.907; internal consistency reliability was higher than 0.70; and average variance extracted AVE for latent constructs was analyzed and exceeded 0.50 (Bagozzi and Yi 1988; Hair et al 2013). The below table shows more than the threshold value of 0.50 for each latent construct.

The remaining item loadings showed sufficient convergent validity (see Table 3), and were thus kept for further analysis. The alpha value was utilized to measure internal consistency, and all of the values were more than 0.8, indicating good reliability for all of the constructs. The composite reliability indicators were also bigger than 0.7. AVE for each construct was higher than Chin's (1998) 0.5 criteria (Bagozzi and Yi 1988; Hair et al 2013).

### Table 1: Assessment of CR, AVE and Cronbach’s value.

<table>
<thead>
<tr>
<th>Item</th>
<th>EGB</th>
<th>EWB</th>
<th>SE</th>
<th>CR</th>
<th>AVE</th>
<th>Alpha value</th>
</tr>
</thead>
<tbody>
<tr>
<td>EGB1</td>
<td>0.869</td>
<td></td>
<td></td>
<td>0.952</td>
<td>0.665</td>
<td>0.945</td>
</tr>
<tr>
<td>EGB2</td>
<td>0.807</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EGB3</td>
<td>0.833</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EGB4</td>
<td>0.877</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EGB5</td>
<td>0.757</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EGB6</td>
<td>0.829</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EGB7</td>
<td>0.818</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EGB8</td>
<td>0.742</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EGB9</td>
<td>0.763</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EGB10</td>
<td>0.852</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EWB1</td>
<td>0.821</td>
<td>0.937</td>
<td>0.649</td>
<td>0.924</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EWB2</td>
<td>0.803</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EWB3</td>
<td>0.846</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EWB4</td>
<td>0.766</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EWB5</td>
<td>0.780</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EWB6</td>
<td>0.835</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EWB7</td>
<td>0.784</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EWB8</td>
<td>0.809</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SE1</td>
<td>0.515</td>
<td>0.907</td>
<td>0.588</td>
<td>0.876</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SE2</td>
<td>0.684</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SE3</td>
<td>0.740</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SE4</td>
<td>0.901</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SE5</td>
<td>0.852</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SE6</td>
<td>0.719</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SE7</td>
<td>0.885</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
As portrayed in Table 1, the coefficients of composite reliability vary between 0.952 and 0.907, showing sufficient internal consistency reliability, where each one is greater than 0.70 (Bagozzi and Yi 1988). On the whole, the outcome of the composite reliability measurement is greater than the value of 0.6 and is reliable (Mauliandini 2019). This implies that the data is reliable and can explicate the model. Thirdly, it was analyzed to make certain the convergent validity (CV) and the average variance extracted (AVE) for each latent construct. Usually, the AVE for each latent construct should be greater than 0.50 (Bagozzi and Yi 1988; Hair et al. 2013). As already portrayed in Table 1, as the entry value of AVE is more than 0.50 for each of the latent constructs, it suggests satisfactory convergent validity (Mauliandini 2019). Reliability can be assessed by using an evaluation of the measurement model (outer model). To discover reliability, Cronbach’s Alpha is used. On the basis of the rest outcomes, greater parts of Cronbach’s Alpha values are greater than the values of 0.7, which are at the level of reliability. To conclude that the model can be taken as reliable, the greater part meets the standard of Cronbach’s Alpha (Mauliandini 2019). Lastly, to ensure the discriminant validity of measures, Fornell-Larcker’s criterion was adopted, as portrayed in Table 2. As per Fornell and Larcker, if AVE for each of the latent constructs is statistically considerable and is greater than its r2 with any other construct, then only discriminant validity is established. To end with, the outcome signifies convergent validity and satisfactory reliability (Fornell and Larcker 1981). Except for a few items that loaded less than 0.7, for all the constructs, the item loadings are in a satisfactory range higher than the suggested entry value of 0.7.

Table 2 Discriminant validity.

<table>
<thead>
<tr>
<th></th>
<th>EGB</th>
<th>EWB</th>
<th>SE</th>
</tr>
</thead>
<tbody>
<tr>
<td>AVE</td>
<td>0.816</td>
<td>0.909</td>
<td>0.806</td>
</tr>
<tr>
<td>CR</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Authors own compilation.

The above table shows the distinction between latent variables and other lateral variables. To measure discriminant validity, Fornell and Larckers criterion was adopted, and it is greater than squared correlation when compared with other constructs.

CFA was employed to assess internal consistency, CV, and discriminant validity. To attain CV, indicator factor loadings should be higher than 0.708 and the AVE score must be greater than 0.50 (Hair et al. 2019). Due to a low factor loading of 0.300, two of the items were omitted. As internal consistency preference indicators based on their reliability, Composite Reliability was used to measure it, and essentially, the CR value should be greater than 0.708 (Hair et al. 2013; 2019). Analogous to that of the alpha value, its values vary from 0 to 1. As a result, satisfactory CV, reliability, and discriminant validity were exhibited by the measurement model.

3.1 Results

Table 3 Total Direct and indirect effects and hypotheses testing.

<table>
<thead>
<tr>
<th>Relationships</th>
<th>Beta</th>
<th>Mean (M)</th>
<th>Standard Deviation (STDEV)</th>
<th>T</th>
<th>p</th>
<th>LL</th>
<th>UL</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>EGB -&gt; EWB</td>
<td>0.055</td>
<td>0.063</td>
<td>0.048</td>
<td>1.136</td>
<td>0.256</td>
<td>-0.045</td>
<td>0.148</td>
<td>not supported</td>
</tr>
<tr>
<td>EGB -&gt; SE</td>
<td>0.094</td>
<td>0.108</td>
<td>0.045</td>
<td>2.082</td>
<td>0.038</td>
<td>0.010</td>
<td>0.187</td>
<td>supported</td>
</tr>
<tr>
<td>SE -&gt; EWB</td>
<td>0.465</td>
<td>0.466</td>
<td>0.039</td>
<td>12.043</td>
<td>0.000</td>
<td>0.387</td>
<td>0.538</td>
<td>supported</td>
</tr>
<tr>
<td>EGB -&gt; SE -&gt; EWB</td>
<td>0.044</td>
<td>0.051</td>
<td>0.022</td>
<td>2.010</td>
<td>0.045</td>
<td>0.004</td>
<td>0.091</td>
<td>supported</td>
</tr>
</tbody>
</table>

Note. LL = lower limit; UL = upper limit; EGB = Green employee behaviour; SE=Self-esteem; EWB = employee well being.

The bootstrapping method was utilized for the testing of the hypothesis, and a re-sampling of 5,000 was used. Based on the t-value, p-value, and confidence interval bias adjustment, a hypothesis’ acceptability was assessed. Of the three hypotheses developed, astonishingly, the study found that green employee behavior has no significance for employee well-being (β = 0.055, t = 1.136, LL = - 0.045, UL = 0.148, p> 0.05). As a result, the H1 hypothesis was not supported. Two hypotheses were supported. The study identified in Table 3 that green employee behavior was positively related to self-esteem (β = 0.094, t = 2.082: LL = 0.010, UL = 0.187, p 0.05). Respectively, H2 was supported. Self-esteem positively mediates the relationship between green employee behavior and employee well-being (β = 0.465, t = 12.043: LL = 0.387, UL = 0.538, p< 0.05) (Fawehinmi, Yusliza, Mohamad, et al 2020). Therefore, H3 was supported (Figure 2). The results indicate that the perception of green behavior was much lower, which replicated the insignificant state of green management at the HEIs. Nevertheless, the academics self-esteem was high, which means that they had an ethical approach and commitment towards the environment. In the meantime, the well-being was average, and the reason can be ascribed to the lack of proper green behavior at HEIs (Fawehinmi, Yusliza, Wan Kasim, et al 2020).
4. Discussion

This study’s intention was to find the impact of employee green behavior on employee well-being in higher educational institutions and universities. A three-dimensional model of green behavior was proposed in this study, which includes in-role behavior, extra-role behavior, and work innovation, whereas a small number of studies evaluating EGB are performed from the facets of "individual practice, influencing others, and the firm’s perception" (Robertson and Barling 2013; Zibarras and Coan 2015). Most of the earlier studies emphasized EGB measurement on task and voluntary employee behavior (Ababneh 2021; Aboramadan 2022; ErcanT, Eyupoglu 2022; Zhang et al. 2021). Between green behavior and well-being, self-esteem was examined as the mediator. The present study built a hypothetical model of "green behavior, self-esteem, and well-being" and analytically evaluated whether self-esteem for employee eco-behavior acts as a mediating role in the whole hypothetical model. The results have shown that there is no noteworthy direct relationship between EGB and But a few earlier studies identified a considerable relationship (Ahmed et al. 2020; Zhang et al. 2021). In line with earlier studies, self-esteem is positively related to employee well-being (M. Kim and Beehr 2018; Makikangas and Kinnunen 2003; Satuf et al. 2018). This recommended that adoption of green behavior need not essentially connote that there is no assurance of improved employee well-being. Even then, Employee Green behavior is necessary to minimize waste, re-usage of resources, and recycling of used products in the workplace. Employees with higher wellbeing show higher work performance, lower job burnout, and are active in suggesting environmentally friendly procedures to be adopted by the company (Ahmed et al. 2020). Then the results demonstrate that EGB is positively influenced by self-esteem (Kim and Beehr 2018; Zhang et al. 2021). It is noteworthy that identification and selection of green behavior are vital to employees’ execution of green behavior. The present study has presented a result in support of the indirect significant association of EGB on EWB with a fully mediating effect of self-esteem. Employees' well-being increases when they have a higher level of self-esteem, which is consistent with self-determination theory, a vital theoretical foundation for well-being research.

Particularly, this study reflects and expands the earlier research in the following manner: Firstly, the present study reflects earlier findings (e.g., Zhang et al 2021) signifying employee green behavior as an important forecaster of employees’ well-being at the workplace. As such, as presumed, though the outcome of the present research did not support the direct effect between employee green behavior and green behavior at the workplace, the outcomes supported the positive relation between employee green behavior and well-being with a mediating effect of self-esteem. The findings of the current research endow the organizations with theoretical guidance to persuade employees to espouse ecological behavior and improve EWB. This study, based on self-determination theory, shows and reveals that high self-esteem serves as an efficient transmission mechanism that carries the beneficial effects of EGB to EWB.

5. Limitations and Future Research

On the foot of earlier researches, the recent study adjoined work innovative behaviour. The scale illustrates though there is indirect effect between green employee behavior and employee well-being, self-esteem has been effectively mediated between green behavior and well-being. Hence, this study suggests future research so that scholars, academicians, and researchers can test the possibility of the research and analyze whether it is appropriate to apply it in other areas of the service sector in India. Secondly, further research may reflect this study by adopting the moderating influence of additional individual and organizational variables. Thirdly, as this study was conducted in the territory of Tamil Nadu in India, the findings would be confined to this territory. To improve the universal applicability of the findings, future studies should aim to collect samples from other territories and regions of India, as well as from other countries. Fourthly, in this study, the limitation is self-esteem as a mediating variable. Hence, prospective studies shall embrace other variables like organizational
commitment and environmental awareness to find their effects. Lastly, to endorse the comprehensive and thorough progress of EWB research work, upcoming research should differentiate more of the three dimensions of life, psychological well-being, and work well-being (Zhengi et al. 2015) and determine if EGB has varying degrees of influence on the three dimensions. From the findings of the study, it can be concluded that EGB has an indirect effect on EWB, SE has a positive impact on EWB, and EGB has an important relationship with SE. Hence, it is essential for the organizations to encourage their employees to adopt green behavior for their own well-being.

6. Conclusions

The study focused on the role of GHRM in impacting the EGB of faculty members eco-related knowledge. The findings in the study illustrate that self-esteem fully mediates the link between green behavior and well-being. The present study enhances the resultant constructs in EGB, through which both organizations and employees can become conscious of the advantageous and favorable results of the implementation of green behavior. While endorsing EWB, the findings of the research should inspire individuals in the workplace to espouse green workplace behavior and to bestow their attention on the sustainable progress of the organization. Therefore, it is desirable that the top-level people inspire their employees to adopt an ecological attitude in the place of work and offer sensible feedback on employees’ constructive behavior in order to enhance self-esteem and employee well-being.

In an emerging economy like India, the function of Green HRM in assuring the necessity to go green among organizations, particularly HEIs, is accentuated. For a society and an economy, HEIs are knowledge incubators. The lectures of the lecturers in HEIs have the potential to influence environmental sustainability by preserving the bioweb from impending distress and catastrophe. In Malaysia, the study of green HRM is still in its formative stage in the context of individuals. Hence, this study targets to enlighten distinct classes of organizations on the value of Green HRM and how it is significant for an organization to endorse environmentally friendly behavior at the workplace.

Ethical considerations

Not applicable.

Conflict of Interest

The authors declare no conflicts of interest.

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