

Impact of Green Training on Green Competencies in Higher Educational Institutes of India

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Abstract

The purpose of this paper is to examine the relationship between the green training on green competencies of employees in the context of higher educational institutes of India. The quantitative research approach using survey was implemented to get insights from sample of 220 employees working in different public and private educational institutes in India. In this study, non-probability convenience sampling method was used. Because of time constraint, data was collected within two months (i.e. September 2018 to November 2018). So the data were collected at one time, the study is not time lagged study. Thus the design is cross sectional in nature. The analysis was carried using PLS SEM modelling (Smart PLS SEM v.3.2.8) software to test hypotheses. The findings revealed that Green training has significant impact on the all the six dimensions of green competencies which includes green skills, green abilities, green knowledge, green behaviour, green attitude and green awareness. All hypotheses were accepted. This study highlights that how employees can gain green skills, abilities, knowledge, awareness and set green attitude with the help of green training and use all these competencies in adopting and implementing an overall environmental management system. This study is limited to higher educational institutes of Uttar Pradesh, India and can be expanded to other industries and other nations. This study aims to validate the presence of the relationship between green competencies and green training. This research has been first of its kind to examine the relationship between green competencies and green training in Indian Universities with the help of an integrative model.

Keywords: Green training, Green competencies, Green practices, Green human resource management.

Introduction

A number of benefits can be derived from the implementation of environmental management, particularly from the point of view of competitive advantage and environmental protection (Rosen, 2001). This implementation encourages transformation in the organization that focuses on sustainable development and integrates business with environmental protection. Moreover, environmental management is not only related to the integration of environmental concerns within the organization, but is also associated with opportunities in the organization to convert existing production processes and products in such a way that they become environmentally friendly (Berry and Rondinelli 1998). The above activities have traditionally been carried out by different departments, such as marketing and operations (Mittal and Sangwan, 2014). However, these activities have also recently been extended to the Department of Human Resources because of their importance in achieving the desired environmental management objectives (Jackson et al., 2011). Similarly, Perron et al. (2006) underscored the need to integrate the technical aspects of environmental management with other human resource management practices and named it Green Human Resources Management (GHRM). The GHRM functions include Green Recruitment and Selection, Green Training, Green Performance Management, Green Pay and Remuneration and Green Employee Engagement (Tang et al., 2017). In addition, green competencies are considered to be an essential requirement of GHRM.

This study provides novel insights and fills the literature gap in the GHRM literature. Existing literature discusses the relationship between GHRM and GSCM (Jabbour and De Sousa Jabbour, 2016; Nejati et al., 2017) and environmental management (Jabbour, 2013; Jabbour et al. , 2013a, 2013b; Siyambalapitiya et al. , 2018), with very few research papers available which looked at the GHRM function as green training (Jabbour, 2015; Teixeira et al. , 2016). Furthermore, the literature on green competencies uncovered a large number of papers related to construction from the point of view of green skills , i.e. specifically in the vocational context (Bozkurt and Stowell, 2016; McGrath and Powell, 2016). The available literature indicates that there is ambiguity in the concept of green competencies (Dlimbetova et al., 2015) and, furthermore, there is a lack of study around this concept.

This study contributes to green human resource literature by integrating green training and green competencies literature to help firms to achieve their environmental goals. When the organizations invest on its employees and provide them green training in order to greenify their operations and also the practices of the employees, the employees will be acquiring the green competencies. They will be equipped with the green knowledge and awareness; they will acquire new and innovative skills and will exhibit the green behaviours that are generated by their positive and green attitudes. They will be proficient in the green abilities which enable them to tackle the difficulties which specifically arise from the environmental issues. Moreover, several research studies have reported significant direct or indirect relationships of all the six dimensions of green competencies i.e. green abilities/knowledge/behaviour/skills/awareness/attitude with green training. Previously studied literature suggests that green human resource management functions such as green training can make employees adopt green behavior and be responsible for the environment (Cherian & Jacob, 2012). Firms that put an important share of time and efforts on the attainment of green human resource management activities tend to become more productive, thus generating positive performance from employees (Rawashdeh, 2018). Green training stimulates people's attention and concerns towards environmental issues, create positive behavior and takes a proactive approach to green initiatives and building to reduce waste and saving energy (Zoogah, 2011). Furthermore, environmental training contributes to development of environmental skill, attitudes and knowledge to great extent (Zoogah, 2011). Another recent study report that link between Green HRM practices which can also include training and environmental performance is mediated by environmental passion (Gilal, Gilal, Gilal, Ashraf & Channa, 2019) and it is believed that green environmental passion is a subpart of green attitudes. Additionally, the findings of (Gilal, Gilal, Gilal, Ashraf & Channa, 2019) suggest that green HRM initiatives contribute to environmental goals when employees score high on green values rather than low on green values which can be linked to the fact that when employer and employees personal values are similar then this positively impacts the job behaviour and attitudes (Edwards & Shipp, 2007, p. 128). It is noted that no studies have attempted to test the direct relationship between green training and green competencies. But, the findings of Cabral and Dhar et. al 2019 suggest that green training has a positive relationship with all six dimension of green competencies. This research article, go one step further by adapting the green competencies scale by Cabral and Dhar et.al 2019 to measure the relationship between green training and green competencies in the higher educational institutes of India.

This research contributes to GHRM literature empirically by testing a model that evaluates and integrates the concept of green training and green competencies. Only few studies describe the relationship between green training and environmental efficiency (Daily and Huang, 2001) or sophistication in environmental management (Jabbour, 2015). It is the first research establishing the empirical relationship between green training and green competencies. This research used Natural-Resource-Based-View to find the solution. Indeed, the theory shows that the company's resources (i.e., green training given to human resources) and expertise (i.e., green skills with qualities, i.e., merit, unique, inimitable and organization) can improve the company's environmental efficiency and result in a competitive advantage (Barney, 1991; Hart, 1995).

Environmental protection and bringing on environment friendly production and management system has now become a crucial concern for organizations. Green HRM is the recent trend that organizations are adopting in this regard. Businesses have just tried to integrate green HRM practices with their traditional ways of manufacturing and managing businesses to keep up with the expectations of their stakeholders and contribute to green movement happening around the globe (Rawashdeh, 2016). Furthermore, the green competencies are now considered as the important element of the Green HRM.

However, one important aspect that is identified for putting in better environment friendly approaches is the education, knowledge, awareness, and training initiatives that equip employees with a focused understanding of environmental issues and help them make environment friendly approaches (Perron et al, 2005). Appropriate training would also make employees informed about the trends in environmental issues, and training would also make them know the dire need to implement and behaving in a way that is environmentally beneficial and rewarding for the organization (Zibarras & Coan, 2015). The fact that, the GHRM is on focus, the companies are taking the initiatives to train, aware, motivate, in a green way. They are providing the platform to the employees to learn green attitude and behaviours thus exhibiting the green activities voluntarily.

Different departments, for instance, operations, marketing, and others have already incorporated green management into their practices. They are conserving the resources, utilizing the resources in an efficient way, and taking environment friendly initiatives, e.g. growing trees or shopping papers incorporated with tree seeds (Yuzliza et al, 2019). Studies have been conducted to discuss benefits attached to sustainable approaches for successful financial and social standings of the business, yet there is still so much left to realize these environmental issues in concern for sustainable development of the businesses. A kind of coerced compliance is being required by the organization; however, business leaders have been successful in identifying compliance with environmental legislation as beneficial for both their company image as well as the long-term competitive advantage (Zibarras & Coan, 2015). In certain studies, clear links have been found between principles of organizational change and the HR initiatives required for environmental change inflicted behaviours and environmental management systems.

HR can play a pivotal role in the sustainability and the competitiveness of the company, because the department evaluate the employees in such a way that could lead them towards competitiveness, thus success. Because they are letting the employees to be effective and efficient in their area, and they are giving the information and awareness to use the best and environment friendly resources. The companies are developing the HR electronically to make it more efficient (Yuzliza, Othman, & Jabbour, 2017). Sustainability is being one of the important challenges to the success of business. The companies must let their human resource to learn the different strategies and competencies in order to be effective while any environmental issue arises (Yusliza, Norazmi, Jabbour, Fernando, Fawehinmi, & Seles, 2019). So, the companies are providing the incentives to the employees, they are considering to reward green, empower the employees green, and developing the role of green HR business partner (Yuzliza et al, 2017). Being green, it will increase the performance of the organization as a whole and also wherever the products of the company are exported there the favourable image of the company will be created. So, the firm will be globally sound and profitable. The green strategies of the firm are the complimentary for the firm's financial performance (Bıçakcıoğlu, Theoharakis, & Tanyeri, 2019). The increased emphasis on the Green HRM, there is increased attention for the top management support, because they are the leaders in the organization who direct the employees. The top management support is needed to encourage the CSR and Green HRM for two reasons; 1) most of the multinationals are growing in the developing economies. Their only purpose should not be the economic progress but also how much environment friendly they are. And what type of resources are being used by them. 2) The top management is responsible for the successful implementation of the CSR and Green HRM objectives. They will motivate their employees to be environmentally efficient (Yuzliza et al 2019). The green strategies are linked with the intellectuals of the firm so

these intellectual capital and resources are very restraint to be copied by other firms, they are rare (Bıçakcıoğlu et al, 2019).

Theoretical Background, Literature Review and Hypotheses Development

Green Training

Green training is a very important factor to achieve the environmental sustainability, either you set attitude of employees towards green practices or create green awareness as much as possible but if you will not train employees to adopt these practices then former behaviours will be ineffective .ISO 14000 contains 90 standards of environmental management and ISO 9000 contains standards of quality so there should be extensive on the job training and employees should be educated to bring green practise in the work for continuous improvement (Cook and Seith 1992;curkovic 1998). Through education and training it is easy to make employees aware about the needs of quality and environmental safety which increases the chances of adaptability towards change. (Wong, 1998). If company will not encourage employees to do the right thing with a required support then this will not allow them to get the tag of environmentally responsible company costing its reputation. Companies should focus on other trainings like benchmarking and team building to empower employees and gain their trust for improving environment (Bhushan and Mackenzie 1994, woods 1993). Environmental training clears the environmental goals and provides employees necessary skills and motivation to implement quality green practices (Hilson and Naye).

Green Competencies

The green competencies are the creative ways that are favourable to the environment used to deal with the immediate surroundings. These are the combination of the perceptions, attitudes, feelings, and behaviours about the environment, it also incorporates what are the personal beliefs and values are for safeguarding of environment.

The green competencies are the individual's attitude toward the resource conservation, and introducing the efficient means of production into operations (Pederson, 1999). The green competencies are of two dimensions, 1) the Natural green competencies, in which the individual is motivated by their own self to protect the environment. They value and give importance to exhibit the green behaviours and environment safeguarding actions. They have knowledge, skills, and abilities of the environmental issues and know how to tackle those issues effectively. They also take the initiatives to reduce those environmental issues. And the (2) the acquired green competencies, that the organisation make them learn certain type of knowledge, skills, and abilities to deal with the environment effectively and negligibly harm it (Subramanian, Abdulrahman, Wu, & Nath, 2016).

Similarly, there has been emphasis on the environment and resource conservation, and that each individual in the organisation should have the skills, efficiencies, and they should be derived by their motives to act in an environmental protective way. They should be inclined and work in a pre-environmental way, and build the pre-established strategies before the severe environmental issues arises. These are the capacities of the individual to interact with the environment effectively (corral-verdugo, 2002). Green competencies are the skills, and knowledge the individuals have in order to be more environment-oriented personnel in the organisation. The individual must have these skills and knowledge in order to be environmentally successful (Opatha & Arul-rajah, 2016).

Relationship between Green Training and Green Competencies

Teixeira et al. (2016) introduced green training as a critical element to expand human resource competencies and change the environment for sustainability. An organization with a managerial dedication to promoting environmental protection performs green training as it equips the employees who are capable of participating in environmental change activities (Govindarajulu and Daily, 2004).

Ramus (2002) argues that providing green training, which includes the content of environmental sustainability issues and policies, may help employees engage voluntarily in environmental conservation, as employees are assimilated with green skills. Indeed, green training helps to improve green education, climate consciousness (Fernandez et al., 2003), and climate skills (Renwick et al., 2013), which enables employees to address environmental problems in realistic circumstances through applying the imbibed environmental aspects. Green training is a critical precedent and also promotes employee attitudes towards green actions (Ramus, 2002). Therefore, green training results in disseminating environmental qualities such as green expertise, green skills, green skills, green consciousness, green attitude, and green actions that can be collectively called green competencies. In summary, there is a clear and beneficial correlation between green training and green skills.

Dimensions of Green Competencies

In this research article, the six dimensions of Green Competencies are analysed. And also, the impact of Green Training on the six dimensions of Green Competencies is analysed in the context of India.

Green Awareness

According to the Gadenne, 2009 Green awareness helps employees to contrivance the environment mgt. systems in the organization on the whole. Green awareness in organizations allows employees to be worried about the severe effect on the environment by the operations of business and they should be ready to develop and implement actions to mitigate the negative impacts that could arise from irresponsible behaviour towards environment protection. Green awareness is well-thought-out as an important and effective step that is required to device environment-management systems in the organization. Moreover, green awareness is also needed to initiate the viable as well as answerable decisions for the organization (Perron et al). A research study by Hale, argues that an active approach for enhanced eco-friendly performance requires that employees in an organization must be well conscious of the system of nature and its operational activities and should also be capable to relate how that system may affect the functions of their organization. Understanding of the natural system will allow employees to participate in environmental preservative activities encouraged in their organization (G.M. Perron, 2006). A study by the Zilahy found that one of the most limiting factors in energy efficiency improvement is the environmental awareness of the employees.

Green Skills

With introduction of GHRM the concept of green employment has emerged which suggest that workforce compositions will significantly be moderated in the job market. Although, there is now substantial research literature on green job, but literature on green skills is still patchy Fankhauser et al. (2008). A recent O-Net based data research classified green employment as a) green jobs (subcategories: Demanded jobs (ID), Improved Skills (ES), and Emerging job (N.E)) b) Non-green jobs (subcategories: Green Rivals (GR) and others) (Bowena,

Kuralbayevab &Tipoe, 2018) implying that need of green skills have been realized by corporate world to attain environmental performance. Researchers believe that with greening of jobs new or additional Green Skills will be required for green or even existing jobs across all industries. Hence, Green skills are innovative approaches to cater environmental problems and achieve sustainable human resource management. Green skills as professional, eco-centric or decision-making skills help organizations to achieve Green production, management, and operations. Moreover, Green skilled employees help to foster green ability as well as green knowledge to their peers, which eventually helps their organizations to develop eco-sustainable management. Additionally, the green skills require recruiters or talent management managers now to manage green career paths as many employees now have to acquire new skills, rotate their jobs or to replace outdated skills for his existing transitional or new green job. A recent study suggests that if green skills are strategically managed for transitional workforce then sustainable organizations will be able to reap short term benefits as well as the competitive advantage in long term (Aust, Mathews & Camen, 2019).

Green Behaviours

Green behaviours are the behaviours that promote the health of individuals in the society. These green behaviours can be linked with the other aspects, like; the natural resource conservation and preservation, using the sustainable means of the production, promote renewable sources of energy, taking the creative initiatives to reduce the different types of pollutions, planting the trees and other (Richmond, 2007; Han et al., 2009). The green behaviours of the consumers are the practices that demotivate the producers, such as the consumers will not purchase the products of producers who do not adhere to the environmental protection policies and rules. And the consumers will have a positive image of the companies, and buy from those, whose products are greener, less pollutant, which are recyclable. (Paco, shiels, & Alves, 2018).

In the organizational context, when the employees and the top management are exhibiting the green behaviours it will lead them to gain the competitive advantage over others. And, if the firm does not update in terms of green technology, it will pose a significant threat to their success (Cheng, Hu, & Zhou, 2018). The behaviours are the result of the attitude a person has towards any action, the norms a person perceives, and the controlled behaviour a person perceives he has. So, the individuals exhibit the environment friendly behaviours, because they have positive attitude towards the protection of environment, and the environmental issues and hazards that are arising and warn the human health (Ajzen, 1991).

Green Attitude

Attitude is way of thinking or feeling towards something, if it is positive then chances of achieving that target is high, Vice versa is true. Companies should focus on creating the positive attitude of employees towards environmental change and the green practices. A study on green tourism shows that respondents with positive beliefs about the services given by green hotels were engaged more in green activities than those with negative beliefs. Orientations help in setting organization attitude towards green issues like green work place, safety, and health (Sajjad Hussain, 2016). The actions of humans towards environment are obtained by lifestyle attitudes because such environmental attitudes give a clear picture of how humans are connected to their environment; they are either harsh on it or taking care of it (Smit, 2009). Such attitudes are set up by knowledge, the emotional approach and behaviour involving cognitive process (Flamm, 2009). The knowledge, attitude, and behaviour model depict that information gained about environment stimulate positive attitude towards it which forces people behave consciously for it (Zimmermann, 1996)

Green knowledge

According to researcher, Green knowledge defined as awareness and information about realities, and perceptions and relationship between environment and whole bionetwork (Fryxell and Lo, 2003). We are here concerned about the awareness about issues connected to environment, discover solutions to mitigate the environmental problems through the green behaviours and green attitudes towards environment (Kollmuss and Agyeman, 2002). According to the researcher (Laroche, 2001) employee should give value to the green knowledge because it is valuable for them, and companies should enable them to be eco-literate because it will make them able to recognize the different environmental behaviour which is associate to save the environment. Some literature shows that green knowledge increases the green purchasing that is saving the environment so if you want to increase green purchasing you should aware the consumer about green knowledge, because green knowledge influences the buying attitude and behaviour of consumer towards green products. Therefore, solve such kind of issues engage customers to green knowledge to solve these environmental problems (Goh and Balaji, 2016).

Some study shows that environmental knowledge is what the responsibilities of people to protect natural environment and understand the relationship between sustainable development and economy (Po-Shin and Li-Hsing, 2009). One researcher suggest that those people who understand this knowledge will easily solve the environmental problems and take benefit from these environmental actions (Frick et al. (2004). According to one research when companies understand the environmental knowledge there will be benefits for companies such as enhanced the company image in market, cost saving because of following the eco-efficiency, improved relationship with local communities, build trust among society, access to superior competitive and new green market (Rondinelli and Vastag, 2000; Zhang et al., 2000).

Green Abilities

Establishing and maintaining an environment friendly organization requires the hiring of employees who consider the conservation of the environment as their duty and who want to involve in environmental management activities. According to Ability-Motivation-Opportunity theory (AMO), Human resource management aims at increasing the ability of employees by attracting such employees and developing their performances gradually, increasing the motivation of employees towards greener projects application and achievement, and allowing them to involve in activities which are based on healthy discussions and knowledge sharing. As per research by Gerhart (2005), HRM practices influence employees' abilities, motivation, and opportunity to boost the company's accomplishments. However, the management had to ensure continuous improvement in the area of recruitment, training, and personal values to increase the level of understanding of the organization's environmental culture, consideration towards ecological friendly activities and polishing the level of eco-literacy (Rajiani, 2016). Green abilities support and motivate employees to advance themselves and improve their performance to accomplish environmental preservation for the organization.

Abilities involve recruiting candidates who are concerned about the green management of the environment, training them to involve in the environmental management practices and activities, and nurturing their personal values (altruism, and biopherism) which consists of their values towards the sustainability of environment (Rajiani, 2016). Moreover, green abilities are the employee' abilities to consider the well-being of co-workers besides promoting the selflessness in the workplace.

Green Training and Green Competencies

Relationship between Green Training and Green Awareness

Opatha and Arulrajah (2014), identified the relationship between green training and green awareness. Researchers demonstrated that green awareness is a significant component fostered by green training. Mishra 's research (2017) (in the Indian context) presented a case of a public organization, where green training sessions on green awareness were conducted, and these sessions helped workers become aware of the environmental deterioration and led them to take action to avoid these environmental issues. Environmental consciousness can be called the aspect that initiates and contributes green competencies in employees. For example, employee awareness through green training illuminates the understanding, knowledge and feelings of environmental protection and helps workers learn the facts and concepts about the environment and ecosystems and thus indicates green awareness.

H1: Green training has a significant positive impact on the Green awareness.

Relationship between Green Training and Green Skills

This study asserted green training's effect on green skills enhancement. Renwick et al . (2013) claimed that the aim of providing green workplace training is to promote green skills among employees regarding energy conservation, waste management and environmental mental analysis. Dlimbetova et al . (2016) further reported lack of awareness and need to develop green skills in the workplace. Therefore, green skills deficiency can be rectified by green training by integrating environmental aspects into the curriculum. These activities will allow workers to participate in behaviors that reduce an organization's adverse environmental impacts.

H2: Green training has a significant positive impact on the Green skills

Relationship between Green Training and Green Attitudes

Research on environmental issues influences the two main components of attitudes, i.e. their structure of values and thought along with their emotions. Accessed knowledge from green training sessions encourages workers to retain optimistic feelings and engage in events that protect natural resources. The findings of Tisdell and Wilson (2005), reported that providing environmental studies education change the mindset of visitors and drives them to engage in conservation activities. Likewise, offering green training sessions inside the company forges a green attitude that promotes a proactive attitude among employees to strive for pollution reduction, product stewardship, and sustainable growth.

H3: Green training has a significant positive impact on the Green attitudes.

Relationship between Green Training and Green Behaviours

Green training serves as a systemic mechanism that encourages employee green behaviour, which in effect helps a company meet its environmental goals. The results reaffirm with Mishra (2017), who believed that providing workers with environmental training or learning helps them imbibe green behaviour. Using green behaviour is a

sub-dimension in green competencies that can be explicitly experienced by people and can be reported as an outcome of employee green competencies. Employees with green behaviours detract from harmful behaviours that harm nature. Also, these workers have a constructive attitude towards educating and passing different environmental principles to colleges and clients.

H4: Green training has a significant positive impact on the Green behaviours.

Relationship between Green Training and Green Knowledge

The relationship of Green training to disseminate green knowledge to the organization's employees was explored. The research of Arulrajah et al . (2015) argued that green knowledge is a critical element that can be delivered by green training and creates an organizational culture that promotes organizational environmental practices. Similarly, Daily et al . (2007) said green training offers green knowledge to green teams to leverage existing opportunities which helps them face many external world challenges. Green awareness is not limited to environmental aspects, but applied to social dimensions relevant to ecotourism. The theory involves protecting biodiversity and upholding cultural heritage, contributing to local communities' wellbeing and empowerment, and promoting the democratic process and human rights (Cobbinah, 2015)

H5: Green training has a significant positive impact on the Green knowledge.

Relationship between Green Training and Green Abilities

Green training has relationship with green abilities. In Arulrajah et al . (2015)'s study, the researcher identified the impact of green training on workers to build green abilities in the company, resulting in improved overall environmental efficiency. Green training ensures workers apply sustainability awareness and expertise in realistic circumstances and helps the company to achieve its environmental goals. Similarly, training helps improve the green abilities of workers, supporting organization in reducing waste and enhancing profitability, profitability, and service / product quality (Renwick et al., 2013).

H6: Green training has a significant positive impact on the Green abilities.

Research Model

This research develops GHRM literature by formulating and providing a model that evaluates and integrates the concept of green training and green competencies.

Only few studies describe the relationship between green training and environmental efficiency (Daily and Huang, 2001) or sophistication in environmental management (Jabbour, 2015). It is the first research establishing the empirical relationship between green training and green competencies. This research used Natural-Resource-Based-View to find the solution. Indeed, the theory shows that the company's resources (i.e., green training given to human resources) and expertise (i.e., green skills with qualities, i.e., merit, unique, inimitable and organization) can improve the company's environmental efficiency and result in a competitive advantage (Barney , 1991; Hart, 1995).

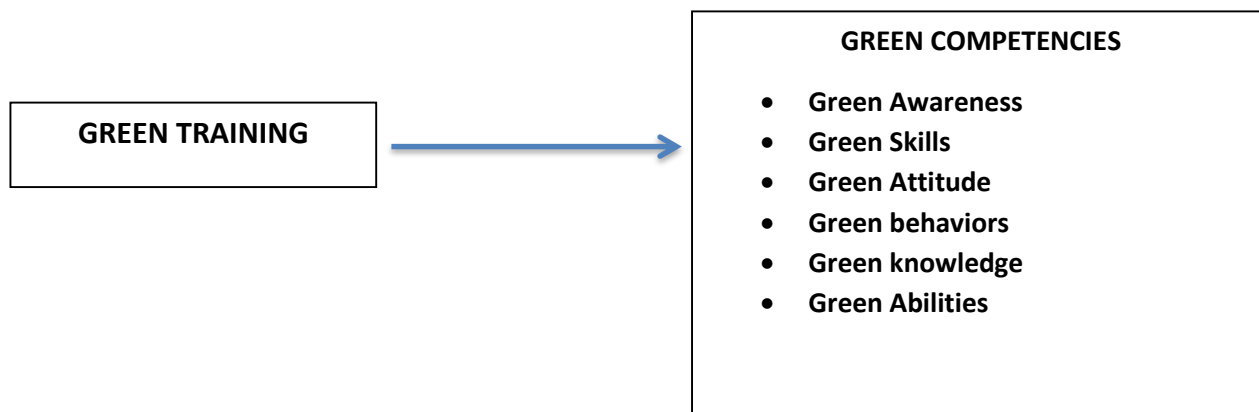


Figure 1. Hypothesized Model

Source: The authors

Research Methodology

Research design, Sampling and Data Collection

This research attempts to test the quantitative validity of six-dimensional scale on Green competencies adapted from Clement Cabral et.al (2019) in the context of Uttar Pradesh, an Indian State. Data were collected via self-administered offline survey questionnaire within the period of 3 months i.e. from September 2018 to November 2018. Participants were sampled from only one industry i.e. higher-educational institutes to avoid any industrial differences. Initially, 350 survey questionnaires were distributed based on convenience sampling among the employees (i.e. faculty and non-faculty) of Aligarh Muslim University, Lucknow University, Allahabad University, Banaras Hindu University, Integral University and King George Medical College. The employees (respondents) were asked to fill the survey to measure the impact of green training if conducted by their institutes' management on their green competencies. In total, 270 responses out of 350 were collected, then after 50 responses were discarded due to missing data or patterned/biased responses. In turn, a useful sample of n=220 responses were used for this quantitative study representing 62.85% of response rate. Furthermore, SPSS Software Package was used for data entry and data cleaning. Finally, the Smart PLS 3 was used for statistical analysis of data. To ensure nomological validity, first conformity analysis process was undertaken in Smart PLS 3. Furthermore, Q-sort process was used to eliminate common method bias along Herman's one factor test (Podsakoff and Organ, 1986). Moreover, Outer model assessment was conducted which include calculating Variance Inflation Factors (VIF), Cronbach's Alpha, Consistent and Discriminant Validity (AVE). Finally Inner structural model was also used to evaluate Path-coefficient, t- test (hypothesis significance), R-square (variance of constructs) and Q-square (Blindfolding test).

Results and Discussion

We have targeted the employees of different universities of Uttar Pradesh, India and demographics details of the employees are given in the following table.

*Demographic profile of respondents***Table 1**

Employee details (n=220)	Frequency	Percentage (%)
Gender		
Male	153	69.5%
Female	67	30.5%
Age in years		
Below 30 year	38	17.28%
30-40 years	84	38.18%
41-50 years	70	31.82%
51-60 years	28	12.74%
Qualification		
Graduates	73	33.18%
Masters	57	25.90%
MPhil/PhD	90	40.45%
Employee type		
Faculty	123	55.9%
Non faculty	97	44.1%
Organization type		
Public	5	83.33%
Private	1	16.66%

Outer Model (Measurement Model)

The factor loadings are checked by the 'Smart PLS 3' software, the factor loadings are found between 0.6 and 0.85 and most of the loading satisfy the condition (Table 2). The multicollinearity issue is evaluated by the Variance Inflation Factors (VIF), all the values are below the threshold 3.3 (Roldan and Sanchez-Franco, 2012), which satisfies the condition too that the multi-collinearity is in the acceptable range.

*Standardized factor loadings & Collinearity Statistics:***Table 2**

	VIF	Green Abilities	Green Attitudes	Green Awareness	Green Behaviour	Green Knowledge	Green skills	Green Training_
GA4	1.375	0.846						
GA5	1.375	0.897						
GAT2	1.310		0.866					
GAT7	1.317		0.706					
GAT9	1.382		0.747					
GAW2	2.115			0.842				
GAW3	1.844			0.799				
GAW4	2.001			0.835				
GAW5	1.649			0.792				
GB11	1.475				0.633			
GB13	1.589				0.764			
GB2	1.467				0.694			
GB3	1.888				0.684			
GB4	1.563				0.715			
GB5	1.765				0.648			
GK2	1.078					0.684		
GK3	1.078					0.887		
GS1	1.153							
GS3	1.153							
GT1	1.677							0.834
GT2	1.804							0.869
GT3	1.571							0.815

The composite reliability values are found in the range of 0.768- 0.89 (table 3) which are greater than 0.7 (the rule of thumb) is the accepted range. And the values indicate that there is internal consistency and reliability among the constructs.

The convergent validity is assessed by using the Average Variance Extracted (AVE), all the values are found above the threshold level of 0.5 (Bagozzi and Yi, 1988) except one which is 0.477 for Green Behaviour, otherwise all the other values are ranging in between 0.602 – 0.760.

Construct Reliability and Validity**Table 3**

	Rho_ A	Composite Reliability	Average Variance Extracted (AVE)
Green Abilities	0.702	0.863	0.760
Green Attitudes	0.767	0.819	0.602
Green Awareness	0.838	0.890	0.668
Green Behaviour	0.814	0.845	0.477
Green Knowledge	0.480	0.768	0.627
Green Skills	0.585	0.806	0.676
Green Training_	0.795	0.878	0.705

The discriminant validity is evaluated (table 4) by the hetero trait mono- trait, all the values are found to be less than 0.85 (Henseler et al., 2015) except one that is Green Abilities (0.872). All the values satisfy the discriminant validity.

Discriminant Validity (Hetero-trait Mono-trait HTMT):**Table 4**

	Green Abilities	Green Attitudes	Green Awareness	Green Behaviour	Green Knowledge	Green skills	Green Training_
Green Abilities	0.872						
Green Attitudes	0.386	0.776					
Green Awareness	0.563	0.241	0.818				
Green Behaviour	0.515	0.311	0.585	0.691			
Green Knowledge	0.406	0.398	0.406	0.326	0.792		
Green Skills	0.418	0.178	0.389	0.490	0.406	0.822	
Green Training_	0.480	0.258	0.699	0.454	0.338	0.331	0.840

Inner model (Structural Model)

This study adopted the steps posited by Heir et al (2016). First, the hypothesis was tested (table 4), the path coefficients were assessed and are tabulated. It is found that the green training has a positive relationship with green abilities (B= 0.48, P= 0.000, T-value=8.101) and the hypothesis is thus supported, and accepted at 5% level of significance.

There a positive relationship is found between green training and green attitude (B= 0.258, P=0.000, t-value= 4.638) the hypothesis is supported and accepted at 5% level of significance.

Green training is positively related with the green awareness (B=0.690, P=0.000, t-value=15.595) the hypothesis is supported and thus accepted at 5% level of significance. The green training is found in a positive relationship

with the green behaviours (B=0.454, P=0.000, t-value= 8.705) the hypothesis is supported and accepted at 5% level of significance. Likewise, the green skills and green knowledge are also supported and accepted at 5% level of significance.

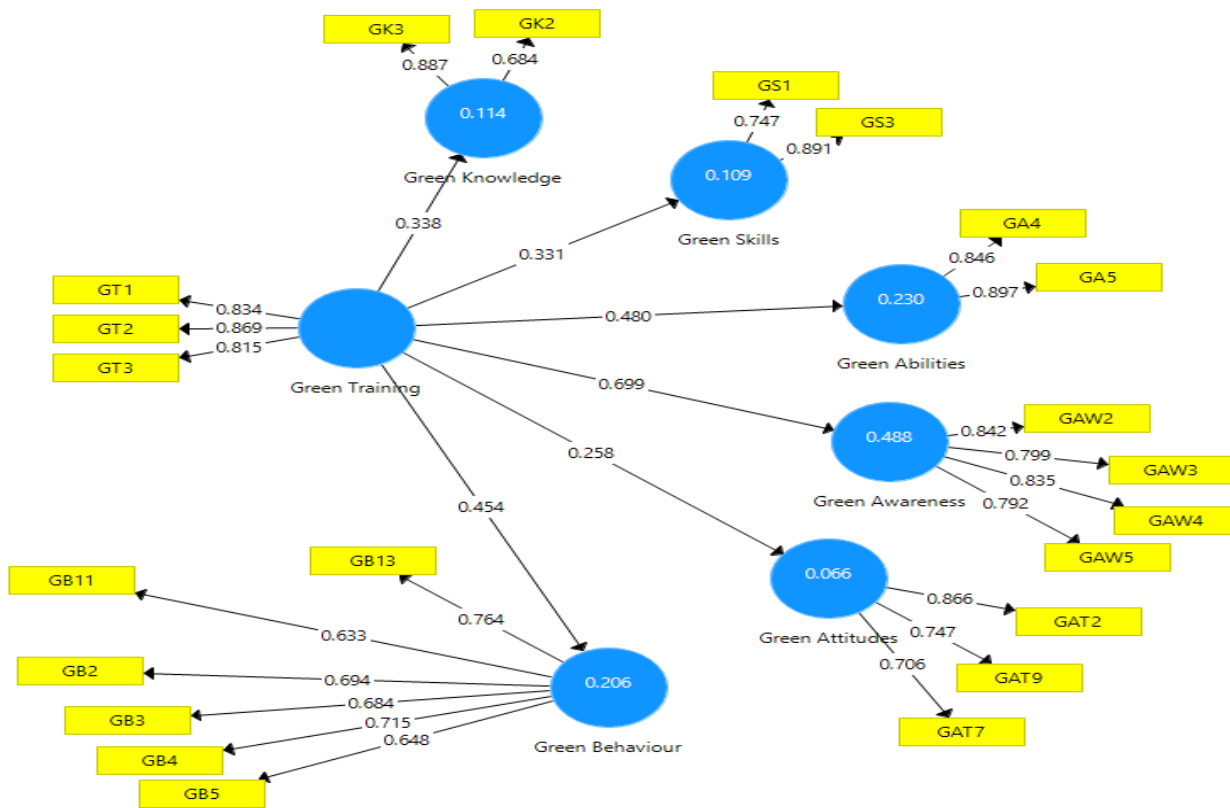


Figure 2: Structural equations model

Hypothesis testing

Table 5

Hypothesis GT -> Green Competencies	Path Coefficients	Sample Mean (M)	Standard Deviation (STDEV)	T Values	P Values	Results
Green Training -> Green Abilities	0.480	0.485	0.059	8.101	0.000	Supported
Green Training -> Green Attitudes	0.258	0.271	0.056	4.638	0.000	Supported
Green Training -> Green Awareness	0.690	0.701	0.045	15.595	0.000	Supported
Green Training -> Green Behaviour	0.454	0.463	0.052	8.705	0.000	Supported
Green Training -> Green Knowledge	0.338	0.346	0.052	6.532	0.000	Supported
Green Training -> Green Skills	0.331	0.337	0.059	5.584	0.000	Supported

Second, The variance in the constructs is evaluated using R square (the coefficient of determination) table 6, there is a large variance in green of green training with the green awareness such as (0.488), and there is moderate relationship between the green training and green abilities (0.23), green behaviour (0.206), and green knowledge (0.114) and a very low variance in between green training and green skills (0.106), and the green attitude (0.066).

Thirdly, the variance relationship between the independent variable green training and the dimensions of green competencies were tested by using the F square. If the variance is 0.02 the variance is too weak, it is moderate if the value of F square is 0.15, and very large if the f^2 value is 0.35 (Heir et al., 2016). The results show that the green attitude (0.71) and green awareness (0.953) have large variance, and the other dimensions; green abilities (0.299), Green behaviour (0.260), Green knowledge (0.129), and Green skills (0.109) have the moderate variance.

Table 6

Construct	R ²	R ² adjusted	f ²	Q ²
Green abilities	0.230	0.227	0.299	0.191
Green Attitude	0.066	0.062	0.71	0.116
Green Awareness	0.488	0.486	0.953	0.203
Green behaviour	0.206	0.202	0.260	0.242
Green knowledge	0.114	0.110	0.129	0.121
Green skills	0.109	0.105	0.123	0.213

Conclusions and Implications

The huge attention to environmental protection around the world has stimulated many organizations to adopt and implement green practices and India is no exception. In this context, the educational institutes also have important role to play in bringing green change.

This research indicates that many educational institutes of India are playing leading role in creating green awareness, setting green attitudes, promoting green behaviours, developing green skills and abilities. An extensive number of studies and research work has been done to highlight the importance of Green competencies in the context of Green HRM but very little contribution is being done from India's context.

This study provides empirical evidences for the positive effect of Green training on the green competencies like green awareness, skills, abilities, attitudes, behaviours and knowledge. All the hypothesis are significantly supported in this study and the six dimensional scale is also validated which can be considered as a huge step in understanding these relationships.

First, this study overall assessed the data to check the relationship between green training and green competencies. This was tested and confirmed in the study as per the data collected from universities. Secondly, separately each of the sub hypotheses was tested. This resulted in a total of six individual hypotheses.

The impact of green training on green knowledge was validated. This was also confirmed the previously available literature that was reviewed prior to this study. This asserts that green training is imperative to gain green knowledge. Furthermore, the second hypothesis; the impact of green training on green attitude was tested. The results concluded that there occurs to have a relationship between the green training that leads to adopting a green attitude towards the job by the employees. This also confirms the literature reviewed. The third hypothesis as per the study was to check the impact of green training on green behaviour. This proclaims that when an employee is given training on usage of green practices on their job, he tends to adopt a green behaviour as an impact of green training. This relationship of green training on green behaviour is also tested and confirmed in this research in the education sector. In addition to this, another hypothesis regarding the impact of green training on green skills was also checked. This explains that employees learn to have green skills that consist of handling procedures that are environmentally friendly as a result of taking green training. This occurred to confirm that there is a positive and significant impact of green training on green skills. Moreover, the impact of green training on green awareness was also under consideration through this research as one important component of green competencies that employees would acquire as a result of green training. The link between green training and green awareness was established too. The last hypothesis for the test was to check if there is any relationship between green training and green abilities. The research suggests that acquiring green training will help the employee to attain certain green abilities that he may use on his job to work on the day to day activities.

This study aims to validate the presence of the relationship between green competencies and green training. A similar study was conducted earlier that developed the scale and validated the scale in the hospitality and tourism industry of India. However, this study contributes to validating the scale of green competencies and their relationship with green training in the education sector of India.

Limitations and Directions for the Future Research

As is the case with every research, this study is also not free from limitations. A noticeable restraint of this study was the sample and the sampling method used. We used convenience sampling. Other methods of data collection and analysis may be used by future researchers. Future researchers can contemplate using a greater sample size including other universities and institutions located in other parts of the country. This study is based on small sample size and a small sample size is not truly representative of the whole population and can lead to generalization and biasness. This study is only conducted in the educational sector of major universities located in one state Uttar Pradesh. This research can be extended to other regions, universities, as well as to other

industries. Due to limited time and resources constraints, it was not possible to communicate with other industries and other sectors of the society. However, this research has been first of its kind to validate the relationship between green competencies and green training in Indian Universities.

Future researchers can include more variables like green motivation, green recruitment, green selection, etc. which affects the green competencies of the employees. Future researches may consider other aspects of the workplace in order to explore more variables. The future researchers may conduct a cross country and cross context analysis. The future researchers may use qualitative methods (non-empirical methods).

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