

# Examining Internal Stakeholder Influence on Firm Sustainability: The Moderating Role of Organizational Support

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**ABSTRACT:** Sustainability is one of the trending topics everywhere. As per the United Nations Sustainable Development Goals (SDG), every developing and developed nation has to implement them. Due to this, many organizations are supposed to implement these practices, and in order to achieve this, employees play an important role. The main purpose of this study is to know how the environmental awareness of employees helps in achieving a firm's sustainability under the moderating effect of organizational support. In this research, a structured questionnaire is prepared, and employees who are working in manufacturing and service sectors are considered for this study to fill out the questionnaire. 340 samples were collected and analyzed using PLS-SEM. Findings of the study reveal that organizational support doesn't show much influence on employees concern for the environment. It is observed that the majority of the respondents have environmental concerns, and organizations are also giving sufficient training to their employees to follow sustainable practices within their organization as well as in their day-to-day activities.

**Keywords:** Sustainability, Organisational support, Employee Awareness, Sustainable Practices, Employee Training.

## I. INTRODUCTION

Sustainability is one of the trending topics in the world; the concern for environmental protection has been increasing due to global warming as well as the increase in the release of greenhouse gases all over the world, which are depleting the environment. In order to save the environment and also to safeguard the rights of future generations, the United Nations (UN) framed the Sustainable Development Goals (SDG), which include 17 objectives and are meant to provide and promote peace and prosperity for the people, planet, and future generations. As part of these SDG goals, every developing and developed nation has to frame legislation to support the environment by lowering emissions and promoting sustainability by 2030 [1]. As a result, many governments are enacting laws to implement sustainable practices in their organizations. As part of this initiative, the majority of organisations need to implement sustainable practices in alignment with government regulations. In actual practice, organisations need to educate and train their employees in implementing sustainable practices. As internal stakeholders, employees have a vital role in implementing these sustainable practices [2]. Awareness of these practices among employees and provision for training the employees to attain the firm's sustainability are crucial. The sustainability of a firm depends not just on creating awareness about the practices among the employees but also on foreseeing the adoption and implementation of those practices by them after effective training [3]. It is also essential to see the continuous support of the organisation by the employees in implementing sustainable practices to ensure the sustainability of the firm. Employees are key in implementing organisational decisions. The success or failure of managerial decisions depends solely on the support of employees.

In recent days, sustainability has become a new competitive agenda and also one of the main objectives of organizations [4]. Sustainability mainly focuses on the "Triple Bottom Line" of "people, planet, and profit," which considers social, economic, and environmental factors more important [5]. Sustainable manufacturing focuses on the manufacturing practices that affect the triple bottom line [6, 7]. One of the main challenges for manufacturers is maintaining sustainability. Fulfilling sustainability issues is one of the most important

strategies for competitive advantage [8]. Efforts towards maintaining sustainability will have a positive impact on businesses and create value among their stakeholders [9].

Employees are one of the stakeholders in an organization. Employees' behaviour and contribution towards sustainability play an important role because they are the key people in implementing the strategies into reality. Even though employees play an important role, there are fewer studies in this field [10]. Today, eco-friendly organisations are mostly preferred by employees who are aware of environmental issues [11]. In this way, many businesses are attracting potential employees to their organizations. Sustainability is the way of achieving today's needs without damaging the capacity to fulfil the needs that are required for future needs [12].

Sustainability can be measured based on items related to economic, social, and environmental factors [13]. Employees play a significant role in the development of organisational policies. Implementation of strategic policies can increase sustainability when employees are loyal [14]. It has been observed in several studies that, in addition to monetary compensation, social and environmental actions developed by organisations will encourage employees to contribute more [15, 16]. Green actions promoted by the organisation will help in improving the mental health, emotional well-being, and loyalty of the employees [17]. To address the above, the purpose of this study is:

1. To study how employee environmental awareness helps in attaining firm sustainability.
2. To study the moderating effect of organisation support in attaining firm sustainability.

Earlier studies have investigated environmental concerns, sustainable practices in organizations, and the effects of employee training. Understanding the relationship between employees' awareness and their adaptability of sustainable practices for enhancing the sustainability of a firm is essential.

Alternatively it has been observed that very limited research exists on how organisational support enhances firm sustainability. There arises a need to study the relationship between employee awareness of sustainability and organisational support in attaining firm sustainability. Organisational support in providing sustainable initiatives can empower employees awareness and engagement in implementing firms sustainability.

This study aims at investigating the effectiveness of employee performance in attaining firm sustainability along with the organizational support to the employees in attaining firm sustainability.

In this context, it is imperative to conduct a comprehensive study and provide insights into environmental concerns, employee awareness, and the adoptability of sustainable practices among employees, as well as examine the effect of organisational support to the employees on a firm's sustainability.

This study develops the following research questions:

1. RQ1: How does employees' awareness of sustainability help to enhance the sustainability of the firm?
2. RQ2: How does employee training towards sustainability help in attaining the firm's sustainability (FS)?
3. RQ3: How does employee adaption of sustainability improve a firm's sustainability (FS)?
4. RQ4: To check the effect of organisational support on a firm's sustainability (FS).

## II. LITERATURE REVIEW

### 1. EMPLOYEE ADAPTABILITY (EA)

The adaptability of employees at work determines firm sustainability. An employee who is ready to adapt to new technologies is an asset for the organization. Earlier studies on employee adaptability suggest that the adaptability of an individual employee, who can change according to work situations, which include new environments, situations, or events, is the basic requirement for employee adaptability [18, 19]. Employee adaptability to sustainable practices will result in the improvement of firm's sustainability.

### 2. EMPLOYEE TRAINING (ET)

Employee training helps in providing knowledge and skills. Later, it was proposed by [20], that employee training is an investment made by organizations to enrich the skills of their employees. Bulut & Culha [21],

recommend that motivation will encourage employees to participate in training programs, [22] it is believed that training will help them acquire the abilities and skills required to do their work more effectively.

### *3. EMPLOYEE ENVIRONMENT CONCERN (EC)*

Environmental concern refers to the awareness of problems that are related to the environment, supportive efforts to solve them, and the willingness to contribute individually to overcome the problems. Employees who are more concerned with the environment will exhibit more eco-friendly behavior [23]. Environmental concerns need to be addressed more at work [24]. Recent studies reveal that employees' environmental concerns positively affect their environmental behaviour at work place [25]. Employees who have good knowledge of the environment may use their skills for the betterment of the organisation. Environmental knowledge involves gathering knowledge and awareness about environmental issues and providing solutions to overcome them [26]. Employees will become more connected with environmental concerns only when they have knowledge of the environment and their commitment to its protection. According to Irani, [27] environmental knowledge-based programmes will help the employees increase their individual skills that are useful in their work and will also be helpful to the management in training other workers.

### *4. ORGANISATION SUPPORT (OS)*

Organizational support is one of the important role in the success of the firms in promoting innovation and creative work environment. Top management concern for the environment is important in implementing sustainable practices [28]. Top management has the authority to provide access to resources, employees, and environmental practices; without their approval, nothing is going to happen. Top-level managers' attitudes and behaviours towards the environment are crucial in implementing environmental activities within their organization [29]. Organisational environmental performance will be improved when management motivates their employees to adopt green behavior.

## **III. MATERIAL AND METHODS**

Many theories are available regarding sustainability, like stakeholder theory, technology- organization environment, resource-based view, etc. This study is based on the theory developed by Elkington, which is known as the "Triple bottom line." This theory was based on the concept that environmental, economic, and social factors are considered important terms in performing businesses. Employees are key players in implementing sustainable practices in any organisation; without their involvement, it is difficult to attain sustainability. In this study, how employee awareness, knowledge, and training provided to them help attain sustainability are studied.

The research frame work of this study was given in the Figure 1 where the Environmental concern, Environmental training and Employee adoptability are considered as independent variables whereas Firms sustainability was considered as dependent variable. The purpose of this study is to know how employee's environmental awareness enhances firm's sustainability. Here organizational support is considered as a moderating variable to measure the impact on employees' awareness of firm sustainability.

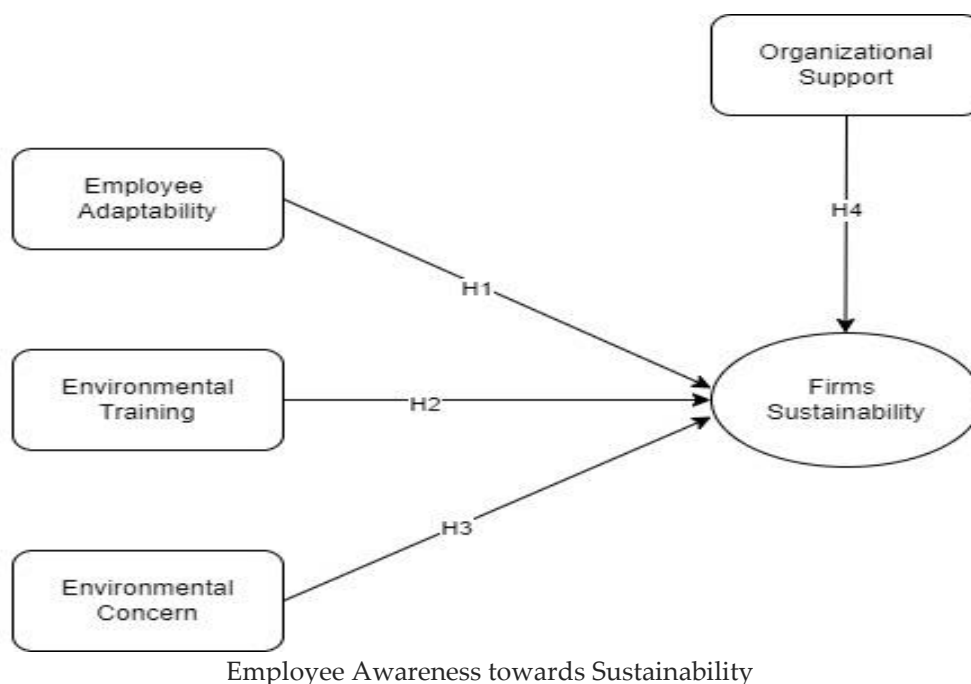


FIGURE 1. Conceptual Framework

Based on the above model the following hypotheses were developed:

- H1: Employees adaptability towards sustainability enhances firms' sustainability.
- H2: Employee training improves firm's sustainability.
- H3: Employees environmental concern leads to firm sustainability.
- H4: Organizational support will aid in attaining firm sustainability.

#### 1. RESEARCH METHODOLOGY

The research methodology, that was considered in this study was given in Figure 2, the researcher has used a descriptive study that adopts a quantitative approach, where a structured questionnaire was developed and circulated to the employees who are working in different organisations, which include manufacturing and service industries. Researchers used purposive sampling to connect with respondents by sending the questionnaires to the employees via email and the WhatsApp mode of communication. Purposive sampling was considered in this study due to the fact that employees who have knowledge of the environment are the target respondents. Moreover, this study focuses on how employees are contributing and performing their roles in attaining sustainability. This sampling will enable the study to examine a variety of opinions from the respondents.

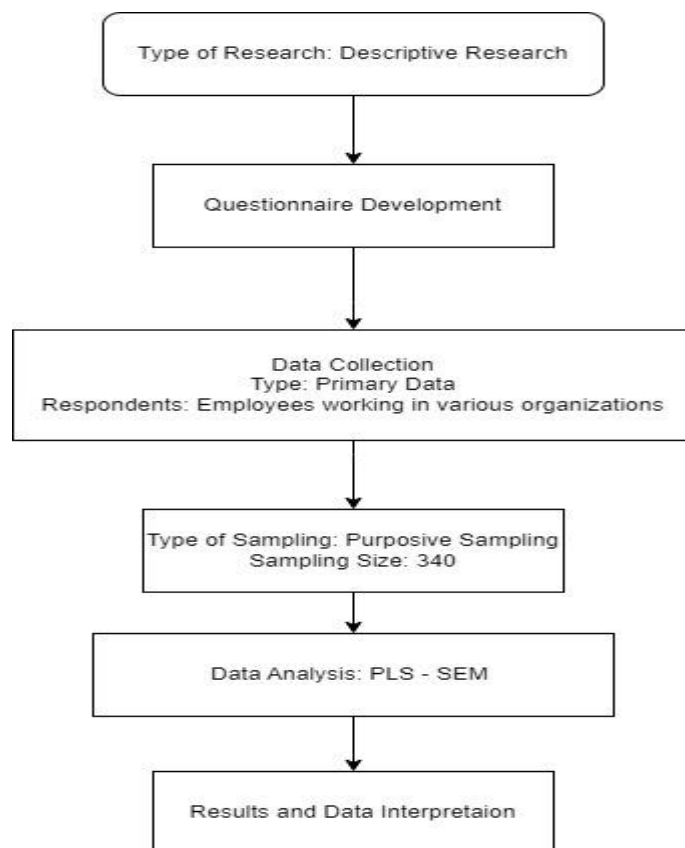


FIGURE 2. Research Methodology Framework

Employees working at management levels with different designations, like executives, assistant managers, supervisors, etc., are considered for this study. Questions are prepared to measure the awareness of the employee towards environmental concerns, training activities, organizational support, and the adaptability of the employee towards sustainable practices. In this study, scales have been adopted from existing literature because they are already proven and valid. Due to this reason, the researchers adopted scales from literature related to environmental concern, environmental training, and environmental adoptability from [30 - 33].

As per the minimum sample size estimation method of the “10 times rule” in the Partial Least Squares, Structural Equation Model (PLS SEM) [34] 300 is the required sample size for this study. At the outset, the researcher collected 340 samples over the course of the data collection for this study. After the proper mode of codification of the collected data, PLS SEM software has been used to analyse the data that was received from the respondents. In this PLS-SEM, the measurement model and the structural models are considered.

In this study, a questionnaire was shared with around 500 people using the referral mode, out of which 350 responded. After inspecting, it was found that 10 responses were invalid as they were not filled out properly. Finally, 340 responses are considered for this study, out of which 252 are male respondents, i.e., 74%, and the rest, 26 percent, are female respondents. The age groups of the respondents range from 18 to above 40 years; most of them are under the age of 25, which is 32 percent. In this study, most of them reported being graduates (52 percent), followed by postgraduates (37 percent) and doctoral students (11 percent). Regarding the experience, the majority of them say 40 percent had more than 10 years of corporate experience. Respondents with different designations like low level with 32 percent, middle level with 46 percent and top level with 22 percent were considered for the study. The details of the respondents are given in Table 1.

**Table 1.** Showing the Demographic profile of the respondents

Gender	Male	Female	Total		
	252 (74%)	88 (26%)	340		
Age	less than 25	26-30	31-35	36-40	Above 40
	109 (32%)	71 (21%)	85 (25%)	58 (17%)	17 (5%)
Educational Qualification	Graduation	Post Graduation	Ph D		
	176 (52%)	126 (37%)	38 (11%)		
Experience	Fresher	1-5 Years	6-10 Years	Above 10 Years	
	116 (34%)	109 (32%)	75 (22%)	40 (12%)	
Designation	Low level Management	Middle Level Management	Top Level Management		
	109 (32%)	156 (46%)	75 (22%)		

#### IV. DATA ANALYSIS

After data collection, all the responses are coded in Excel and analysed using the PLS SEM software. It is important to analyse the data that was collected to extract the results. PLS-SEM is mostly used for analysing results. In this study, a measurement model and a structural model are conducted to analyse the collected data. In the below sections, all the analyses are discussed.

##### 1. RELIABILITY, CONVERGENT VALIDITY AND MULTI COLLINEARITY ASSESSMENT

In the first stage of analysis, it includes confirmatory factor analysis, where the validity and reliability of the instruments are checked. In the next stage, path analysis is measured. Both measurement and path modelling are measured using this PLS-SEM. The path model for this study is given in Figure 3. In Path analysis, i.e., measurement model factor loading, composite reliability, and average variance extracted (AVE), As per [35], the minimum value should be equal to or greater than 0.7 for a good measurement model. Factor loadings that are less than 0.40 are not to be considered. The item values for different constructs are given in Table 2, all the values of the items that are given in the Table 2 are accepted as every item meets the required value of 0.7.

**Table 2.** Showing Convergent validity

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Employee Adaptability	0.947	0.947	0.958	0.790
Employee Concern	0.945	0.947	0.956	0.786
Employee Training	0.924	0.930	0.940	0.724
Organizational Support	0.957	0.959	0.965	0.823
Firms Sustainability	0.945	0.945	0.956	0.785

Note: for reliability (CR>0.70), Convergent validity (CR>AVE>0.50)

Further, as per the Table 2, the Cronbach's alpha value and composite reliability should be greater than 0.7. Since all the variables in the Table 2 are greater than 0.7 and the average variance extract (AVE) for every indicator shown greater than 0.50. The values that are given below in the Table 3, for different factor loadings fulfill the required values so the item loadings are accepted.



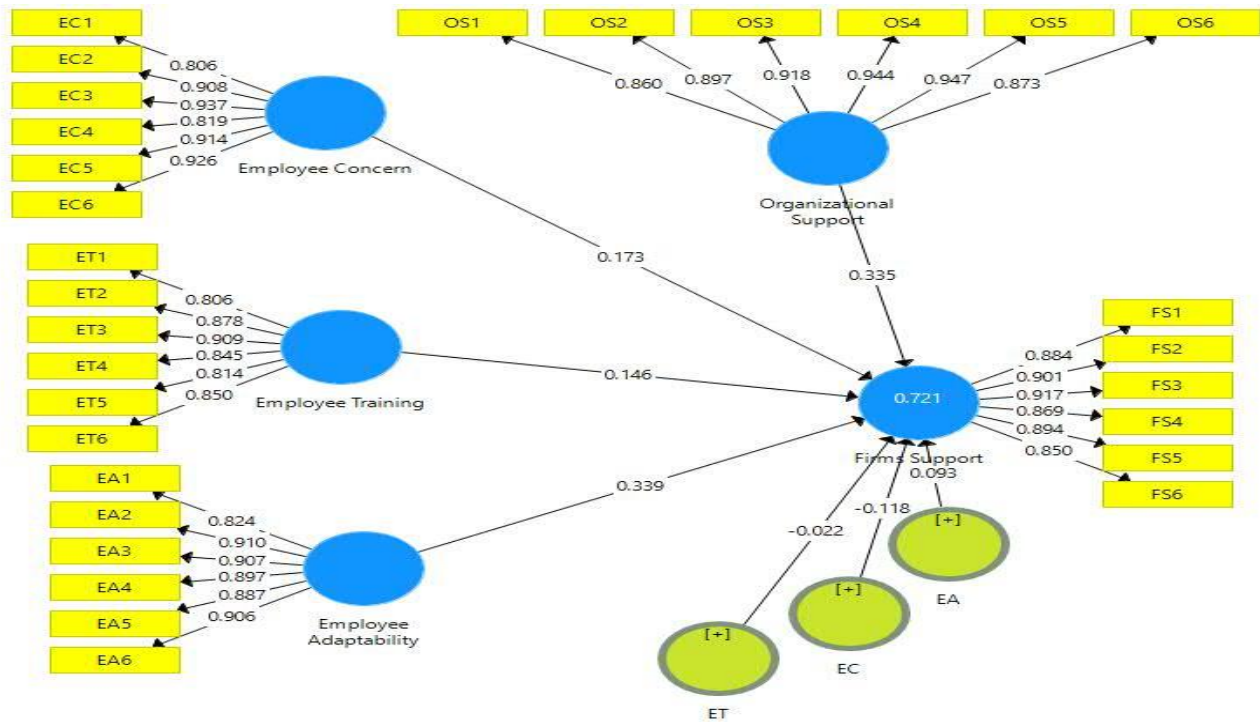


FIGURE 3. Path Model

Table 3. Showing factor loading items based on Path Model

Constructs/Items	Items of each Construct	Factor Loadings	VIF
<b>Environmental Concern (EC):</b>			
EC1	I'm worried about future environmental quality.	0.806	2.351
EC2	Environmental protection is essential.	0.908	4.272
EC3	Spending more money on encouraging environmental protection is required.	0.937	2.253
EC4	Environmental issues are emergency issues.	0.819	4.953
EC5	Environmental issues are emergency issues.	0.914	3.214
EC6	Environmental issues are our responsibility.	0.926	4.172
<b>Environmental Training (ET):</b>			
ET1	An adequate amount of training in environmental issues is provided for employees.	0.806	2.900
ET2	Employees can get a chance to be trained on environmental issues.	0.878	3.658
ET3	Employees receive environmental training frequently.	0.909	4.281
ET4	Employees use their environmental training effectively.	0.845	2.700
ET5	Employees have many opportunities to use environmental training.	0.814	2.618
ET6	There is adequate evaluation of employee's performance.	0.850	3.188
<b>Employee Adaptability (EA):</b>			
EA1	Reduce resource utilization (Energy & Water)	0.824	2.734
EA2	Minimizing wastes during manufacturing process.	0.910	4.335
EA3	Aware of energy efficiency practices during production process.	0.907	3.976
EA4	Effective utilization of resources (Machine, Material and Manpower).	0.897	4.131
EA5	Usage of alternative energy sources.	0.887	4.620
EA6	Usage of effective resource management systems to improve efficiency	0.906	3.820

and effectiveness.

Organizational Support (OS):	Items of each Construct	Factor Loadings	VIF
OS1	The organization values my contribution to environmental management.	0.860	3.261
OS2	My Organization supports to act in environmentally friendly ways at work.	0.897	4.175
OS3	My Organization provides environmental knowledge accessible to those who need it.	0.918	4.521
OS4	Employees are awarded for their performance towards sustainability.	0.944	3.735
OS5	My Organization provides awareness on all existing pollution control devices.	0.947	2.810
OS6	Employees are awarded for their performance towards sustainability.	0.873	3.120
Firms Sustainability (FS):	Items of each Construct	Factor Loadings	VIF
FS1	Reduce resource utilization (Water & Energy)	0.884	4.973
FS2	Emissions of Green house gases are reduced	0.901	4.443
FS3	Effective mechanism for recycling of wastes	0.917	3.074
FS4	Improves quality of life around the factory premises.	0.869	4.100
FS5	Company fulfills its responsibility towards employees, customers, suppliers and stakeholders.	0.894	2.834
FS6	Company fulfills its responsibility towards employees, customers, suppliers and stakeholders.	0.850	4.521

The variance inflation factor (VIF) determines the multi-collinearity among the components. According to Hair [35], if collinearity or variance inflation factor (VIF) is less than or equal to 5, then only the model will be free from multi-collinearity problems. As shown in the Table 3, all the result values that are less than 5 are considered. All the VIF values for the items are given, items that have a VIF value greater than 5 are not considered; only items with a value less than 3 are free from collinearity problems. Items that have a value less than 5 are also considered, as per [35, 36].

## 2. DISCRIMINANT VALIDITY (FORNELL-LARCKER CRITERIA)

Discriminant validity helps in measuring the indicators that are having explicit considerations. HTMT was also considered to know the discriminant validity. As per [35], the HTMT value should be smaller than 0.90, as shown in Table 4, the HTMT values are lesser than the said value, so all the constructs are accepted. In this study discriminant validity, is measured by comparing the square roots of the AVE. As shown in the Table 4, no construct value exceeded the square root of AVE (diagonal values). As per Fornell and Larcker the constructs are associated with their items. Therefore the measurement model meets the required level of reliability and discriminant validity.

**Table 4.** Showing discriminant validity (Fornell- Larcker criteria)

	Adaptability	Concern	EA	EC	ET	FS	OS	Training
Adaptability	1.000							
Concern	0.779	1.000						
EA	-0.601	-0.504	0.889					
EC	-0.504	-0.617	0.580	0.887				
ET	-0.326	-0.227	0.593	0.391	0.851			
FS	-0.471	-0.470	0.751	0.612	0.634	0.886		
OS	-0.348	-0.238	0.629	0.422	0.651	0.720	0.907	
Training	0.694	0.567	-0.409	-0.285	-0.274	-0.395	-0.416	1.000



### 3. HYPOTHESES TESTING

The relationship between the variables is analyzed, and the values that are obtained are given in Table 5. The results of the proposed hypotheses is discussed based on the p-value obtained, which are discussed below.

**Table 5.** Showing the Hypothesis test results

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values	Decision	F square	Result
Adaptability - > FS	0.093	0.091	0.067	1.383	0.167	Not supported	0.016	<b>Rejected</b>
Concern -> FS	-0.118	-0.117	0.059	2.013	0.045	Supported	0.030	Accepted
Training -> FS	-0.022	-0.019	0.052	0.417	0.677	Not supported	0.001	<b>Rejected</b>
EA -> FS	0.339	0.343	0.064	5.251	0.000	Supported	0.151	Accepted
EC_ -> FS	0.173	0.172	0.040	4.284	0.000	Supported	0.051	Accepted
ET -> FS	0.146	0.147	0.042	3.454	0.001	Supported	0.039	Accepted
OS -> FS	0.335	0.331	0.046	7.314	0.000	Supported	0.167	Accepted

As shown in the Table 5, it is observed that the p values which are  $>0.05$  are not accepted and the factors that are having p values  $<0.05$  are only accepted. Based on the above values it is observed that the hypotheses

H1: Based on the p value of 0.167, which is greater than 0.05, it can be deduced that there is no significant association among employee adaptability with firm sustainability. The hypothesis that employee adaptation to sustainability improves firm sustainability has been rejected.

H2: The sustainability of the company is enhanced via employee training was rejected because the p value, which was 0.677, was larger than 0.05. Based on this value, it appears that there is no connection between staff training and increasing firm sustainability.

H3: Employee environmental concern leads to firm sustainability was accepted based on the p value of 0.030, which is less than the value of 0.05, which confirms that there is a significant relationship between employee concerns and firm sustainability.

H4: Organizational support will aid in attaining firm sustainability was accepted due to the fact that the p value obtained is 0 which is less than the desired value of 0.05, hence there is a significant relationship between organizational support and firm sustainability.

### 4. INNER MODEL FIT EVALUATION

As per [37], Coefficient of determination ( $R^2$ ) and predictive relevance ( $Q^2$ ) determines the inner model to check whether the hypothesis to accept or reject. The  $Q^2$  values are based on the values obtained, 0.02 are small, 0.15 as medium and 0.35 as large.

The  $Q^2$  Value obtained is 0.557, which is greater than 0, which says that the model has large predictive relevance.  $R^2$  value should be greater than 0.1 as per [38].

**Table 6.** showing  $R^2$  and  $Q^2$  values

	R Square	R Square Adjusted	Q Square
Firms Sustainability	0.721	0.714	0.557

As per the values given in the Table 6,  $R$  square value is greater than 0.1, so it is accepted.

## V. CONCLUSION

The implications of this study suggest that the organizations should focus on the environment, paying attention towards employee trainings, employee concerns. Management should provide supportive and adaptive work culture among their employees. Enhancing the support to employees will help in attaining firm's sustainability.

Business strategies should be framed in order to meet social expectations, maintain the reputation of the organisation, and withstand competition. Management should engage stakeholders continuously by addressing concerns and expectations through collaboration and effective communication and collaboration. Businesses need to focus more on research and development activities in order to design new manufacturing processes and technologies for producing new and sustainable products that don't harm the environment.

It is observed from this study that Firms sustainability depends on Employee concern towards the environment. If employees are not concerned over the environmental problems it leads to many other problems in near future, so management should provide awareness on the environmental issues and motivate them to understand the importance of environment. Even trainings should be provided to the employees at regular intervals for better usage of technologies in reducing the emissions that are released from the factories. Management must allocate some funds for trainings exclusively. Organization support will help the employees to perform and to exhibit their skills while they are performing. So management must be ready to support their employees.

It is observed that most of the studies are being conducted on how employee awareness is going to increase firm sustainability, very few studies are available with respect to organizational support in enhancing firms sustainability. This study tried to address the employee awareness and also the organizational support to the employees in enhancing firms sustainability. In this aspect this study is different and provides new information about the employee awareness and the moderating effect of organizational support in enhancing the firms sustainability compared with the other studies available.

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## REFERENCES

1. UN, 2015. Transforming our World: The 2030 Agenda for Sustainable Development - Resolution Adopted by the General Assembly on 25 September 2015. [WWW Document]. URL. [http://www.un.org/ga/search/view\\_doc.asp?symbol=A/RES/70/1&Lang=E](http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E), Accessed date: 4 June 2020.
2. Schrettle, S., Hinz, A., Scherrer -Rathje, M., & Friedli, T. (2014). Turning sustainability into action: Explaining firms' sustainability efforts and their impact on firm performance. *International Journal of Production Economics*, 147, 73-84.
3. Wolf, J. (2013). Improving the sustainable development of firms: The role of employees. *Business Strategy and the Environment*, 22(2), 92-108.
4. Wang, Z., Subramanian, N., Gunasekaran, A., Abdulrahman, M. D., & Liu, C. (2015). Composite sustainable manufacturing practice and performance framework: Chinese auto-parts suppliers' perspective. *International Journal of Production Economics*, 170, 219-233.
5. Mitra, S., & Datta, P. P. (2014). Adoption of green supply chain management practices and their impact on performance: an exploratory study of Indian manufacturing firms. *International journal of production research*, 52(7), 2085-2107.
6. Dubey, R., Gunasekaran, A., & Chakrabarty, A. (2015). World-class sustainable manufacturing: framework and a performance measurement system. *International Journal of Production Research*, 53(17), 5207-5223.
7. Garbie, I. H. (2014). An analytical technique to model and assess sustainable development index in manufacturing enterprises. *International Journal of Production Research*, 52(16), 4876-4915.
8. Goyal, P., Rahman, Z., & Kazmi, A. A. (2013). Corporate sustainability performance and firm performance research: Literature review and future research agenda. *Management Decision*, 51(2), 361-379.
9. Porter, M. E., & Kramer, M. R. (2018). Creating shared value: How to reinvent capitalism—And unleash a wave of innovation and growth. In *Managing sustainable business: An executive education case and textbook* (pp. 323-346). Dordrecht: Springer Netherlands.
10. Hallinger, P., & Nguyen, V. T. (2020). Mapping the landscape and structure of research on education for sustainable development: A bibliometric review. *Sustainability*, 12(5), 1947.
11. Zientara, P., & Zamojska, A. (2018). Green organizational climates and employee pro-environmental behaviour in the hotel industry. *Journal of Sustainable Tourism*, 26(7), 1142-1159.

12. Martín-Miguel, J., Prado-Román, C., Cachón-Rodríguez, G., & Avendaño-Miranda, L. L. (2020). Determinants of reputation at private graduate online schools. *Sustainability*, 12(22), 9659.
13. Blanco-Gonzalez, A., Díez-Martín, F., Cachón-Rodríguez, G., & Prado-Román, C. (2020). Contribution of social responsibility to the work involvement of employees. *Corporate Social Responsibility and Environmental Management*, 27(6), 2588-2598.
14. Guillon, O., & Cezanne, C. (2014). Employee loyalty and organizational performance: A critical survey. *Journal of Organizational Change Management*, 27(5), 839-850.
15. Kucukusta, D., Denizci Guillet, B., & Chan, H. L. (2016). The effect of CSR practices on employee affective commitment in the airline industry. *Journal of China Tourism Research*, 12(3-4), 451-469.
16. Elrehail, H., Rehman, S. U., Chaudhry, N. I., & Alzghoul, A. (2021). Nexus among cyberloafing behavior, job demands and job resources: A mediated-moderated model. *Education and Information Technologies*, 26, 4731-4749.
17. Han, H., & Hyun, S. S. (2019). Green indoor and outdoor environment as nature-based solution and its role in increasing customer/employee mental health, well-being, and loyalty. *Business Strategy and the Environment*, 28(4), 629-641.
18. Charbonnier-Voirin, A., & Roussel, P. (2012). Adaptive performance: A new scale to measure individual performance in organizations. *Canadian Journal of Administrative Sciences/Revue Canadienne des Sciences de l'Administration*, 29(3), 280-293.
19. Sony, M., & Mekoth, N. (2016). The relationship between emotional intelligence, frontline employee adaptability, job satisfaction and job performance. *Journal of Retailing and Consumer Services*, 30, 20-32.
20. Sung, S. Y., & Choi, J. N. (2014). Do organizations spend wisely on employees? Effects of training and development investments on learning and innovation in organizations. *Journal of organizational behavior*, 35(3), 393-412.
21. Bulut, C., & Culha, O. (2010). The effects of organizational training on organizational commitment. *International journal of training and development*, 14(4), 309-322.
22. Ocen, E., Francis, K., & Angundaru, G. (2017). The role of training in building employee commitment: the mediating effect of job satisfaction. *European Journal of Training and Development*, 41(9), 742-757.
23. Czap, N. V., & Czap, H. J. (2010). An experimental investigation of revealed environmental concern. *Ecological Economics*, 69(10), 2033-2041.
24. Temminck, E., Mearns, K., & Fruhen, L. (2015). Motivating employees towards sustainable behaviour. *Business Strategy and the Environment*, 24(6), 402-412.
25. Huang, Y., Haung, X., Wang, X., Zhang, W., Zhou, D., Zhou, Q., ... & Cui, T. (2019). Structural transitions in NaNH<sub>2</sub> via recrystallization under high pressure. *Chinese Physics B*, 28(9), 096402.
26. Paço, A., & Lavrador, T. (2017). Environmental knowledge and attitudes and behaviours towards energy consumption. *Journal of environmental management*, 197, 384-392.
27. Irani, F., Kiliç, H., & Adeshola, I. (2022). Impact of green human resource management practices on the environmental performance of green hotels. *Journal of Hospitality Marketing & Management*, 31(5), 570-600.
28. O'Reilly III, C. A., & Tushman, M. L. (2011). Organizational ambidexterity in action: How managers explore and exploit. *California management review*, 53(4), 5-22.
29. Gilal, F. G., Ashraf, Z., Gilal, N. G., Gilal, R. G., & Channa, N. A. (2019). Promoting environmental performance through green human resource management practices in higher education institutions: A moderated mediation model. *Corporate Social Responsibility and Environmental Management*, 26(6), 1579-1590.
30. Weigel, R., & Weigel, J. (1978). Environmental concern: The development of a measure. *Environment and behavior*, 10(1), 3-15.
31. Gifford, R., & Nilsson, A. (2014). Personal and social factors that influence pro-environmental concern and behaviour: A review. *International journal of psychology*, 49(3), 141-157.
32. Singh, S. K., Chen, J., Del Giudice, M., & El-Kassar, A. N. (2019). Environmental ethics, environmental performance, and competitive advantage: Role of environmental training. *Technological Forecasting and Social Change*, 146, 203-211.
33. Nazeer, S., Saleem, H. M. N., & Shafiq, M. (2024). Examining the Influence of Adoptability, Alignment, and Agility Approaches on the Sustainable Performance of Aviation Industry: An Empirical Investigation of Supply Chain Perspective. *International Journal of Aviation, Aeronautics, and Aerospace*, 11(1), 8.
34. Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. *Journal of Marketing theory and Practice*, 19(2), 139-152.
35. Hair, J. F., Ringle, C. M., & Sarstedt, M. (2013). Partial least squares structural equation modeling: Rigorous applications, better results and higher acceptance. *Long range planning*, 46(1-2), 1-12.
36. Ringle, C., Da Silva, D., & Bido, D. (2015). Structural equation modeling with the SmartPLS. Bido, D., da Silva, D., & Ringle, C. (2014). *Structural Equation Modeling with the Smartpls*. *Brazilian Journal Of Marketing*, 13(2).
37. Kante, M., Chepken, C., & Oboko, R. (2018). Partial least square structural equation modelling' use in information systems: an updated guideline in exploratory settings.
38. Cheah, J. H., Sarstedt, M., Ringle, C. M., Ramayah, T., & Ting, H. (2018). Convergent validity assessment of formatively measured constructs in PLS-SEM: On using single-item versus multi-item measures in redundancy analyses. *International Journal of Contemporary Hospitality Management*, 30(11), 3192-3210.

## Appendix

### Questionnaire on Employee Awareness towards Sustainable Practices.

Hello Sir/Madam,

Greetings of the Day!!

I'm R Hariprasad, Research Scholar, pursuing Doctoral program, as part of my research, I need to collect information on Employee Awareness towards sustainability, in this connection, I request you to please fill this questionnaire. I use this data for academic purpose only and I shall not be used for any other purposes.

Thank you.

### Demographic Details

1. Gender

- a. Male b. Female

2. Age:

- a. Less than 25 b. 26-30 c. 31-35 d.36-40 e. Above 40 Years

3. Educational Qualification:

- a. Schooling b. Graduation c. Post Graduate d. Ph.D

4. Type of Company/Organization:

- a. Government b. Public c. Private d. Others (if any)

5. Place:

- a. Rural b. Urban c. SEZ d. Industrial Layout e. Others (if any)

6. Type of Company/Organization:

- a. Manufacturing b. Service Sector c. Others (if any)

7. Designation:

- a. Top level Management b. Middle Level Management c. Low level Management d. Others (if any)

8. Experience/Service (in years):

- a. Fresher b. upto 5 years c. upto 10 years d. Above 10 years

### **Employee Awareness towards Sustainable Practices**

Please provide your responses for the following statements.

#### **Environmental Concern among Employees:**

1. I'm worried about future environmental quality.  
1. Strongly disagree 2. Disagree 3. Neither agree nor disagree 4. Agree 5. Strongly agree
2. Environmental protection is essential  
1. Strongly disagree 2. Disagree 3. Neither agree nor disagree 4. Agree 5. Strongly agree
3. Raising environmental protection awareness among people is important.  
1. Strongly disagree 2. Disagree 3. Neither agree nor disagree 4. Agree 5. Strongly agree
4. Spending more money on encouraging environmental protection is required.  
1. Strongly disagree 2. Disagree 3. Neither agree nor disagree 4. Agree 5. Strongly agree
5. Environmental issues are emergency issues.  
1. Strongly disagree 2. Disagree 3. Neither agree nor disagree 4. Agree 5. Strongly agree
6. Environmental issues are our responsibility.  
1. Strongly disagree 2. Disagree 3. Neither agree nor disagree 4. Agree 5. Strongly agree

#### **Environmental Training**

1. An adequate amount of training on environmental issues is provided for employees.  
1. Strongly disagree 2. Disagree 3. Neither agree nor disagree 4. Agree 5. Strongly agree
2. Employees can get a chance to be trained on environmental issues.  
1. Strongly disagree 2. Disagree 3. Neither agree nor disagree 4. Agree 5. Strongly agree
3. Employees receive environmental training frequently.  
1. Strongly disagree 2. Disagree 3. Neither agree nor disagree 4. Agree 5. Strongly agree
4. Employees use their environmental training effectively.  
1. Strongly disagree 2. Disagree 3. Neither agree nor disagree 4. Agree 5. Strongly agree
5. Employees have many opportunities to use environmental training.  
1. Strongly disagree 2. Disagree 3. Neither agree nor disagree 4. Agree 5. Strongly agree
6. There is adequate evaluation of employee's performance after environmental training.  
1. Strongly disagree 2. Disagree 3. Neither agree nor disagree 4. Agree 5. Strongly agree

#### **Employee Adaptability**

1. Reduce resource utilization (Energy & Water)  
1. Strongly disagree 2. Disagree 3. Neither agree nor disagree 4. Agree 5. Strongly agree
2. Minimizing wastes during manufacturing process.  
1. Strongly disagree 2. Disagree 3. Neither agree nor disagree 4. Agree 5. Strongly agree
3. Aware of energy efficiency practices during production process.  
1. Strongly disagree 2. Disagree 3. Neither agree nor disagree 4. Agree 5. Strongly agree
4. Effective utilization of resources (Machine, Material and Manpower).  
1. Strongly disagree 2. Disagree 3. Neither agree nor disagree 4. Agree 5. Strongly agree
5. Usage of alternative energy sources.  
1. Strongly disagree 2. Disagree 3. Neither agree nor disagree 4. Agree 5. Strongly agree
6. Usage of effective resource management systems to improve efficiency and effectiveness.  
1. Strongly disagree 2. Disagree 3. Neither agree nor disagree 4. Agree 5. Strongly agree

### **Organizational Support**

1. The organization values my contribution to environmental management.
  1. Strongly disagree 2. Disagree 3. Neither agree nor disagree 4. Agree 5. Strongly agree
2. My Organization supports to act in environmentally friendly ways at work.
  1. Strongly disagree 2. Disagree 3. Neither agree nor disagree 4. Agree 5. Strongly agree
3. My Organization provides environmental knowledge accessible to those who need it.
  1. Strongly disagree 2. Disagree 3. Neither agree nor disagree 4. Agree 5. Strongly agree
4. My Organization encourages employees to use eco friendly products.
  1. Strongly disagree 2. Disagree 3. Neither agree nor disagree 4. Agree 5. Strongly agree
5. My Organization provides awareness on all existing pollution control devices.
  1. Strongly disagree 2. Disagree 3. Neither agree nor disagree 4. Agree 5. Strongly agree
6. Employees are awarded for their performance towards sustainability.
  1. Strongly disagree 2. Disagree 3. Neither agree nor disagree 4. Agree 5. Strongly agree

### **Firms Sustainability**

1. Reduce resource utilization (Water & Energy)
  1. Strongly disagree 2. Disagree 3. Neither agree nor disagree 4. Agree 5. Strongly agree
2. Usage of alternative energy sources.
  1. Strongly disagree 2. Disagree 3. Neither agree nor disagree 4. Agree 5. Strongly agree
3. Emissions of Green house gases are reduced
  1. Strongly disagree 2. Disagree 3. Neither agree nor disagree 4. Agree 5. Strongly agree
4. Effective mechanism for recycling of wastes
  1. Strongly disagree 2. Disagree 3. Neither agree nor disagree 4. Agree 5. Strongly agree
5. Improves quality of life around the factory premises.
  1. Strongly disagree 2. Disagree 3. Neither agree nor disagree 4. Agree 5. Strongly agree
6. Company fulfills its responsibility towards employees, customers, suppliers and Stake holders.
  1. Strongly disagree 2. Disagree 3. Neither agree nor disagree 4. Agree 5. Strongly agree