

# Making Organizations Sustainable Through Employee Participation: An Analysis of Factors and Their Interactions

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**Abstract**—Organizations have been integrating sustainability issues into their systems. Employees are a core component of the human dimension of the organizational systems; however, there has been limited research on the factors of employee participation (EP) for organizational sustainability. This article is aimed at investigating the importance of EP factors and how they are related. A survey was conducted to investigate the importance and relationships of EP factors for sustainability, and 305 full responses were received. The responses were analyzed using Friedman tests, Kruskal–Wallis test, correlation analysis, and centrality measures. The results highlight that all factors are important for organizational sustainability, albeit some more than others. The correlation and centrality analyses showed that all factors are interrelated. This article provides insights into EP factors by 1) ranking of EP factors in organizations, 2) analyzing the interrelations and centrality of the EP factors, and 3) comparing the rankings, the interrelations, and centrality measures. This research contributes to organizational sustainability by focusing on the human dimensions through the EP factors and their interrelations. The EP factors must be recognized and integrated to implement sustainability more efficiently in organizations. No organization exists without its employees, and no organization can become sustainable without engaging them.

**Key words:** Centrality analyses, employee participation, organizational sustainability, organizations, sustainability

## I. INTRODUCTION

ORGANIZATIONS [civil society organizations (CSOs), companies, and public sector organizations (PSOs)] have been proactively engaging with economic, social, and environmental dimensions of sustainability [1], [2]. Several definitions of organizational sustainability have been proposed to fit these dimensions together. Some definitions address only three dimensions of sustainability (environment, social, and economic) [3], [4], [5], whereas others include

four dimensions (economic, environmental, social, and time) [6] and interrelations between the biophysical, social, economic, and political dimensions [7]. Another definition is focused on experiences between partners and producing services and products based on efficiency and effectiveness concepts [8]. One of the most complete definitions of organizational sustainability involves the continuous incorporation and integration of sustainability dimensions (economic, environmental, social, and time) in the organization's system elements (operations and production, strategy

and management, governance, organizational systems, service provision and assessment, and reporting), as well as change processes and their rate of change [9].

A large body of organizational sustainability efforts have predominantly focused on “hard” technocentric issues [9] and managerial approaches [10], [11]; however, strategies that continue to focus on economic purposes supported with environmental and social efforts may not be able to deal with the root reasons of sustainability challenges [12]. Organizations must also address “soft” issues of sustainability, e.g., change management [9], [13] and organizational systems [i.e., culture, leadership, and employee participation (EP)] [14]. Employees are a core component of the human dimension of the organizational systems [15], [16], where organizations depend on their knowledge creation and human development in their sustainability efforts [15], and, thus, they must ensure that their employees participate in sustainability activities and implementation [17], [18].

In general, most research on employees in sustainability topics have been conducted in companies, for example, employees’ proenvironmental behaviors [19], [20], [21], the role of employee commitment for green performance [22], the employees’ attitude and performance [23], and the role of EP in the sustainability [24]. There is increasing, yet limited, research on other types of organizations [25], such as the effect of corporate social responsibility on job satisfaction and organizational commitment [26], green employee engagement in higher education organizations [27], and analyzing employees’ green behavior in the public and private sectors [28]. The scope of these

studies has been limited to one country’s organizations and one aspect of sustainability.

An integrated approach that focuses primarily on individuals acting as the main drivers of any organization is required in order to address organizational sustainability [17]. Drawing on the integrated approach, the achievement of organizations depends on employees’ willingness to collaborate and participate in the organization’s developing sustainability practices [29]. Employees are key drivers of organizational sustainability [30], instrumental in achieving sustainable organizational success [2], [29], [31], and implementing sustainable practices [30], [32]. Despite these, there has been limited research on the factors that promote EP in sustainability activities in organizations. There is limited research that investigates the relationships between the factors of EP [24] in all types of organizations, i.e., CSOs, companies, and PSOs.

This article is aimed at providing insights into the relative importance of EP factors and how these factors are related to each other.

This article is organized as follows. Section II provides the contextual background on and discusses the EP factors of organizational sustainability literature. Section III shows the methods used. Section IV presents the results. Section V discusses achieved results. Finally, Section VI draws conclusions from the study.

## II. LITERATURE REVIEW

Implementing organizational sustainability is a multidimensional process [4], [33], as it consists of a number of system elements, one of which is organizational systems [9]. Employees are a key part of organizational systems [9], [34] since they are the building blocks of

organizations [35], [36] and an important driving force to foster the organization’s goals and objectives [9], [37]. Employees who are strongly familiar with the organization will use organizational features to denote part of their identity and shape their own definitions of survival, uniqueness, and self-development [29]. Employees can lead to better productivity [38], innovation, and organizational success [39], and they tend to participate more in jobs where they think they can have a positive contribution [40]. The integration of sustainability into the organizational system depends on its employees’ response and participation in sustainability [29]. When employees experience and participate in sustainability, they can understand that they are more than “human resource” [41]. EP is key to contributing to organizational sustainability [2], [42], which can result in organizations’ improvements in responsible and sustainable actions and contribute to making societies more sustainable [43].

Previous studies have generally focused on EP for sustainability in companies, for example, on the influence of corporate social responsibility on EP [23], [44], [46], on EP in sustainability initiatives [47], EP for corporate sustainability [48], and on the effect of corporate sustainability on EP [49]. There have been some studies on EP for sustainability in CSOs, in particular analyzing the importance of EP in higher education institutions (HEIs) [50], [51], [52] and staff engagement to develop sustainability competencies in HEIs [53]. However, EP research study on the sustainability of PSOs and other CSOs remains limited [39], [54], [55], [56].

From the literature, it is possible to collate the following nine EP factors:

- 1) training [57], [58], [59];
- 2) involvement [59], [60];

- 3) engagement [61];
- 4) incentives [54], [59], [62];
- 5) employee volunteering [63], [64];
- 6) diversity and inclusion [49], [65], [66];
- 7) formal rules and norms [60], [67], [68];
- 8) informal rules and norms [69];
- 9) communication [70], [71], [72].

A few studies focused on the role of employees in organizational sustainability [2] and its policies [60].

Training is fundamental to providing and increasing awareness of sustainability impacts [73], [74].

Regular training can teach employees about organization's policies, everyday procedures, and change the attitudes of individuals and create increased awareness about sustainable issues [75].

Training about sustainability develops social and environmental skills and refers to practices such as selecting, recruiting [76], developing social and environmental knowledge [45], environmental policy, and nonconformity reporting [72]. In companies, trained employees make suggestions on incentive schemes designed to reduce waste and resource use, and sustainability is referred to as a core aspect of customer service [61]. Compared to companies, CSOs tend to lag behind in training on sustainability [77]. In HEIs, employee training provides a sound basis upon which academic and service staff may engage in sustainability efforts [78] and develop new sustainability-oriented courses [61]. In the case of PSOs, promoting regular training leads to the creation of more diverse and inclusive organizations [79] and improves sustainability initiatives [80].

Employee involvement and participation in sustainability initiatives are positively related to key aspects of sustainability, such as efficient use of resources, sustainable lighting techniques [81], and waste

and pollution reduction in the workplace [61]. When employees are involved in the sustainability process, they can better express their ideas and suggestions to foster sustainability [82]. Employee involvement with sustainability initiatives requires some change in the values, policies, and culture of companies [58], which helps employees elaborate on how to address and implement aspects of sustainability into their business procedures and strategies [45]. In CSOs, some stakeholders, such as local people, are directly involved in implementing sustainability initiatives or solving social justice problems and represent "competition" [83].

Engaging HEIs' staff and students in sustainability initiatives and decision-making processes is an intrinsic factor in integrating sustainability into the student learning experience [53]. Employees in PSOs follow the adoption of sustainability practices but at a slower pace [80], since such sustainability practices need financial budgets, which leads to being more likely hindered or less supported [17].

Employees' perception of sustainability in the organization affects their commitment to the organization [49]. Organizations develop strategies (voluntary actions, workplace sustainability programs, and encouraging employees to voluntarily participate in sustainability programs) to foster their employees [47]. This enables employees to adopt more social and environmental responsibilities [84]. Such strategies are still in an early phase in most CSOs [9], including HEIs [85], and PSOs [86]. Considering sustainable companies, employees are working on different agendas, such as sustainable supply chain management, marketing, and green business initiatives—essentially addressing social, environmental, and economic issues in organizational climate [87]. When employees are engaged with their

company's sustainability strategies, they proactively identify, communicate, and pursue opportunities to implement the sustainability issues [88]. Employee engagement can be defined as the actions an organization takes to secure employee interest and attention in its sustainability efforts [71]. Employee engagement can help organizations address increasingly complex and broad sustainability issues, which can lead to better process operations and positive organizational and employee-level outcomes [89], [90].

Incentives are significant to use sustainability-related skills and provide extra resources in the role and routine adaptation phases [17]. Incentives motivate employees to offer solutions and take more responsibility for organizations [59]. For example, financial rewards for employees' personal contributions toward sustainability encourage them to participate in company activities [91]. Incentives can send a message to employees that sustainability performance is a critical goal for the company and guide employees' behavior [59]. Most CSOs often have limited incentives and restrictions on employees to engage with sustainability [70], whereas the establishment of award systems contributes to the placement of sustainability in the university system, making sustainability issues more visible within the organization, thus including academics in sustainability [53]. Considering companies and COs, PSOs are typically unable to provide incentives for sustainability due to lack of resources and knowledge [39].

Employee volunteering is recognized as a key sustainability activity [92]. A growing number of organizations have developed volunteering programs to support and organize opportunities for employees' skills and time to help serve the society

[93]. Such programs are principally included as a part of the employers' sustainability efforts and social responsibility activities [92], [94]. An example of this is a chemical company that offers each employee the opportunity to join a team, improve a corporate volunteering project in one of the three main areas (food, smart energy, and city life), and present the project to an international nonprofit center [95]. When the concept of sustainability goes beyond the business sector, employers in the public and other sector organizations accept their responsibilities and express their willingness to develop employee volunteering projects [63]. Since supporting employee volunteering is meaningful for companies, particularly large ones [96], to demonstrate their sustainability initiatives and corporate value [93], companies show the relationship between employee volunteering programs and sustainability by publishing them on their websites, annual financial statements, and sustainability reports [43]. Employee volunteering programs are complemented by a variety of profiles and skills related to the administrative or supporting areas of organizations [63].

Diversity and inclusion are significant factors influencing the sustainability performance of organizations [49], [56]. The viability and sustainability of an organization increasingly depend on its diversity and inclusive policies [76]. Different cultural settings can help understand the barriers to greater involvement in sustainability initiatives [97]. For example, in order to achieve sustainability goals, some companies develop intergenerational diversity programs that include activities targeting specific employee groups, from new graduates to older employees. [43]. Another example of the impact of diversity on top management shows that it depends on the region, industry, size of the company, etc. [98]. Civil society has

been at the forefront of social change worldwide, combating inequality and exclusion; yet these external efforts are not always reflected in their internal operations [79]. In CSOs, diversity requires a holistic approach to capacity building that focuses both on funding and on internal systems and structures [83]. Employees in HEIs are generally divided into two categories: academic and professional support staff, and the distinction between those two groups is well known within the sector [99]. Diversity in HEIs takes a pedagogical interest and an interest in democratic legitimacy, which is required for the visible integration of educational institutions [100]. Employee diversity is also an important factor for PSOs to measure sustainability performance [80].

Formal rules and norms are instrumental to implement sustainability in organizations [69], [101]–[103]. In order to implement and control sustainability strategies and initiatives, for instance, large companies behave responsibly to establish formal rules and norms to manage relationships with their supply chain actors [104], [105]. Companies' norms and rules are crucial for the attitudes of employees to participate in environmental activities [105]. There is limited work on rules and norms (i.e., governance) for sustainability in other types of organizations, including civil society and PSOs [106], [107]. CSOs need a conducive governance environment in order to operate freely, effectively, and sustainably [83]. For HEIs, sustainability seems to go beyond the commitment of governing rules, but a holistic approach is still lacking [108]. In PSOs, EP can strengthen sustainability and thus improve governance [109]. Informal rules and norms aim to establish and reinforce shared values and common ways of doing things that align the organization with its sustainability,

often carried out through experience and communication [91].

Communication plays an important role in raising knowledge about sustainability issues and deep understanding of individual roles in the process [75]. Engaging employees for sustainability requires organizations to clearly communicate the vision and commitment to sustainability issues [62], [110]. Environmental programs, initiatives, and goals of an organization should be communicated frequently so that employees know what is expected to accomplish the goals [111]. Communication about what different types of employees can do for sustainability is crucial, which can encourage employees to implement sustainability initiatives in their jobs [112]. For example, the company's sustainability goals and suggestions should be communicated to the employees [111] as internal communicators to spread positive word of mouth throughout the organization [112]. Since there is a weak internal communication approach and a lack of skills to do good communication in CSOs, their sustainability efforts are often insufficient [70]. In HEIs, communication with employees in the sustainability process is identified as a barrier to change for sustainability in HEIs [113], [114]. PSOs are starting to use sustainability reporting (SR) as a communication tool, and this could drive organizational changes for sustainability as employees are perceived as being the most involved in the SR process [86].

### III. METHODS

A survey was developed to explore the importance of how sustainability has been embedded in organizations, including EP. The survey was implemented using the online survey tool Qualtrics [115]. The data collection took place from May to November 2018. The survey



consisted of the following six sections:

- 1) organization characteristics, including country of origin, size, and product–service–focus;
- 2) role of sustainability for the organization and role of the respondent in the company;
- 3) sustainability questions, including EP factors;
- 4) organizational change toward sustainability and incorporation of sustainability;
- 5) stakeholders' role in the organization's sustainability participation;
- 6) role of the supply chain.

This article is focused on Sections 1 and 3, whereas other sections have been analyzed in papers already published [33], [116], [117]. The survey was sent to a database of 5299 contacts from different organizations, obtained from the Global Reporting Initiative (GRI) list of organizations worldwide and personal contacts. The survey was sent to the respondents who actively work with sustainability activities and goals, such as sustainability managers, CSR managers, and global sustainability managers. In addition, 107 anonymous links were sent out. Three reminders were sent out, one in July 2018, one in September 2018, and one in October 2018. From the total list of emails, 616 emails bounced back. From the total, 305 full responses were obtained for analysis in this article, with a response rate of 6.51%.

The EP questions asked were the following.

- 1) Employees receive regular training on sustainability issues.
- 2) Employees are involved in sustainability-related processes or practices.
- 3) Employees are engaged in sustainability-related processes or practices.

- 4) Sustainability is communicated throughout the organization.
- 5) The organization supports employee volunteering.
- 6) The organization provides incentives for sustainability engagement.
- 7) The organization has formal rules and norms to foster sustainability;
- 8) The organization has informal rules and norms to foster sustainability.

The respondents were asked to indicate their level of agreement and were assessed on a five-point scale (from definitely not, probably not, might or might not, probably yes, and definitely yes) to help establish the reliability and validity of the data. The responses were then transformed into an ordinal scale from 1 to 5.

The data were analyzed using descriptive analysis, Friedman test to analyze relative ranking between factors, Spearman correlations, Kruskal–Wallis tests, network maps (NMs), and centrality analysis.

Descriptive statistics were used to describe individuals, social groups, and societies on key variables [118], which helped to rank the EP factors for sustainability in order of importance. Spearman's correlation is used when the variables are ordinal or when one is ordinal and the other is an interval or ratio [118], [119]. In this article, it was used to calculate the correlation between the EP factors, after these were transformed into ordinal variables. Kruskal–Wallis test, used for nonparametric variables, helps to compare two or more independent samples of equal or different samples [120]. In this article, Kruskal–Wallis test was used to identify whether there was a statistically significant difference between the EP factors for each organizational sector, size, and

country. The analyses were performed using SPSS 24 [121].

The correlation was then drawn up as an NM, which can help to represent issues as well as their connections, giving a sense of direction upon the influence that a concept has on any other [122]. The NM was drawn with the help of the software yEd [123]. The NMs were analyzed with the help of the degree of centrality function in yEd, according to their connections, to detect which issue or issues were more prominent. Centrality measures the linkages between the different NM elements [124]. It also measures the way in which traffic flows through a network, for example, through the degree of centrality, closeness, and information centrality [125]. Centrality can also allow the balance among the different categories to be observed [126]. The centrality analysis was done using the yEd software [123].

**A. Limitations** The validity of this article may have been limited by the survey, which may not have offered a broad model of all EP factors for sustainability in organizations. The number of respondents (305) may not allow for a comprehensive generalization of all types of organizations and to other regions. The generalizability of results to all organizations may be limited to the application of a nonrandom sampling procedure and the focus on companies listed in the GRI Disclosure Database with additional input from personal contacts and “snowballing” methods. Generalizability could be improved by a study based on a randomly selected sample drawn from the total number of organizations active in sustainability.

## IV. RESULTS

This section presents the results of the study, divided into ranking, correlations, and centrality measures, for all organizations, including

companies (204), civil society (54), and PSOs (47). There were 59 organizations with 1–49 employees, 28 with 50–249, 19 with 240–499, 10 with 500–999, 82 with 1000–4999, 102 with more than 5000, and 1 that did not know.

**Table 1. Responding Organizations' Time Engaged With Sustainability Efforts.**

Less than 1 year	3
Between 1 and 3 years	16
Between 3 and 5 years	36
Between 5 and 10 years	88
Between 10 and 15 years	64
More than 15 years	102

**Table 2. Respondents' Time Working With Sustainability.**

Less than 1 year	9
Between 1 and 3 years	42
Between 3 and 5 years	45
Between 5 and 10 years	89
Between 10 and 15 years	50
More than 15 years	69
No response	5

Figure 1 shows the respondents' countries, where the majority were from European countries: Germany (39), Sweden (38), Spain (31), Netherlands (26), UK (15), Belgium (14), Austria (13), Italy (12), Finland (10), Portugal (10), US (9), Switzerland (9), Turkey (7), and others (72).

Table 2 shows the sustainability experiences of the respondents, showing that the majority has more than 5 years of experience working with sustainability. Table 1 indicates how many years organizations in the survey have been actively engaged with sustainability.

The Kruskal–Wallis tests were carried out to compare the statistical differences between the EP factors of the three organization types (CSOs, companies, and PSOs) and organization size (0–49, 50–249, 250–499, 500–999, 1000–4999, and more than 5000). The differences between the eight countries with the highest rate of responses (Germany,

Sweden, Spain, Netherlands, United Kingdom, Belgium, Austria, and Italy) were also analyzed.

It should be highlighted that the analyses resulted in no statistically significant differences between countries, organization size, and organization type regarding EP factors; therefore, the ranking and correlation analyses were done for all the organizations.

**A. EP Factors' Ranking** The importance of each EP factor for organizations is presented in Figure 2 using the Friedman significance test ( $p < 0.01$ ). The EP factors were divided into the following three groups according to their ranking results:

- 1) first group: communication (6.24).
- 2) second group: involvement (5.37), formal rules and norms (5.24), informal rules and norms (5.18), engagement (5.16), employee volunteering (5.09), and diversity and inclusion (4.71).
- 3) third group: incentives (4.16) and training (3.85).

The relative ranking results showed that all factors in the three groups are important for contribution of sustainability to organizations, although some are more important than others.

**C. EP Factor Correlations** A Spearman correlation was conducted to assess whether the EP factors were independent or connected in Table 3.

All correlations were significant at  $p < 0.01$ . The highest correlations (in dark blue, and more than 0.65) were between involvement and engagement and between engagement and training. Those with moderate correlations (in blue, and between 0.50 and 0.65) were between training and engagement, between training and communication, between formal rules and norms, and incentives, and between involvement

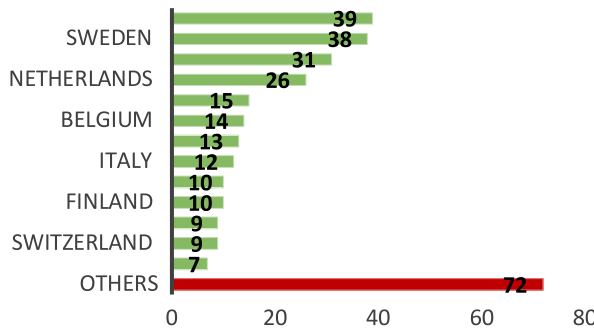


Figure 1. Survey responses per country.

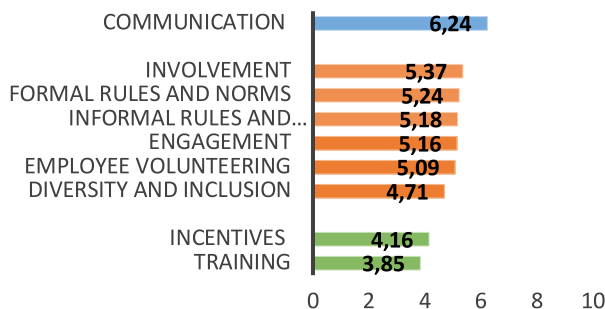


Figure 2. Ranking of the importance of ep factors for sustainability in organizations using the Friedman test ( $N = 305$ ;  $p < 0.01$ ).

**Table 3. Correlations Between EP Factors in Organizations (N = 305; Spearman Rho Correlation Test, p < 0.01).**

	Training	Involvement	Diversity and inclusion	Communication	Engagement	Employee volunteering	Incentive	Formal rules and norms	Informal rules and norms
Training	1								
Involvement	0.664	1							
Diversity and inclusion	0.25	0.27	1						
Engagement	0.609	0.723	0.327	1					
Communication	0.535	0.508	0.275	0.457	1				
Employee volunteering	0.271	0.277	0.29	0.304	0.399	1			
Incentive	0.356	0.31	0.25	0.354	0.385	0.373	1		
Formal rules and norms	0.48	0.439	0.291	0.441	0.394	0.213	0.509	1	
Informal rules and norms	0.405	0.38	0.278	0.384	0.516	0.256	0.437	0.428	1

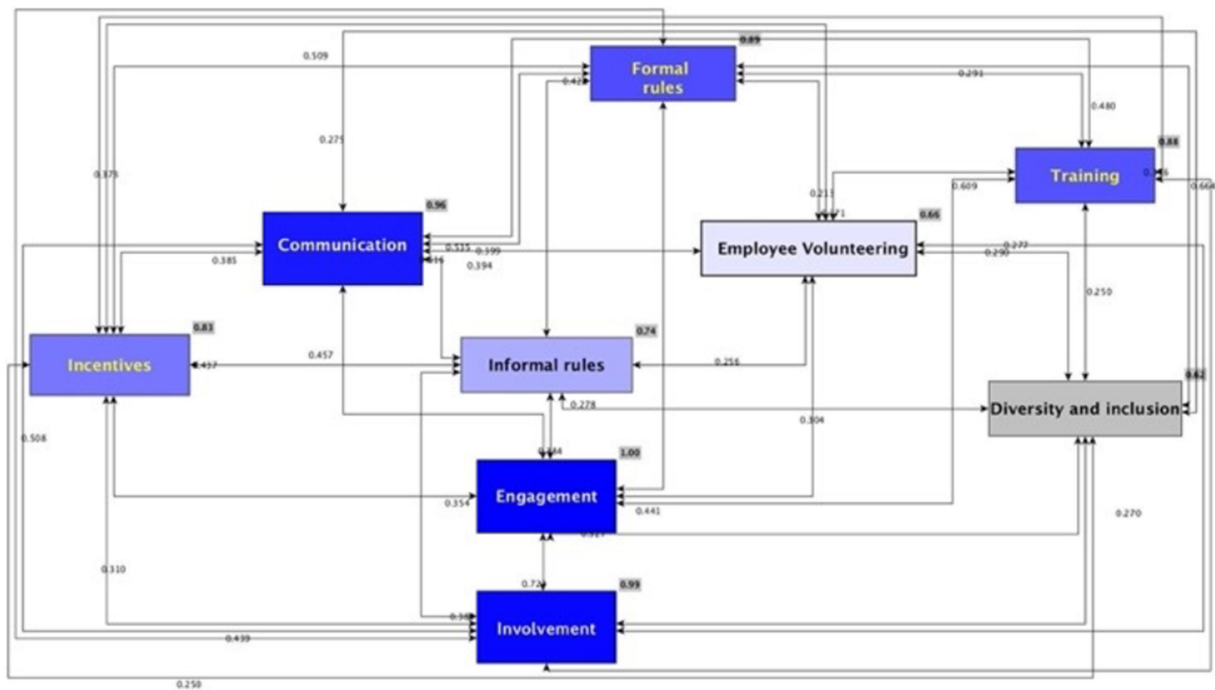


Figure 3. Centrality NM of connections between EP factors, where dark blue indicates the factors with the highest correlations, purple ones for medium connections, light purple and grey show factors having the lowest correlations.

and communication. Correlations between 0.35 and 0.50 are shown in light blue. Among the EP factors, the ones with the lowest correlation value (between 0.2 and 0.35) are highlighted in red. The correlation shows that the EP factors are positively interrelated and considered to contribute to sustainability, albeit some more than others. It should be noted that engagement was highly correlated with involvement (0.723), whereas the correlation between the formal rules and norms and employee volunteering was the lowest one with 0.213.

Figure 3 shows the connections between the EP factors and the centrality measures of all the EP factors, where engagement has the highest centrality (1.0), i.e., it is the most interrelated. This is followed by

involvement (0.99) and communication (0.96), whereas informal rules and norms (0.74), support (0.66), and diversity and inclusion (0.62) have the lowest centrality of all factors in organizations.

From the centrality results, it is possible to group the EP factors into the following:

- 1) first group: engagement, involvement, and communication.
- 2) second group: formal rules, training, and incentives
- 3) third group: informal rules, employee volunteering, and diversity and inclusion.

Table 4 shows the differences in the rank between the Friedman test and the

centrality of the EP factors. Three EP factors went up in ranking: engagement with four ranks, training with four, and incentives with two, whereas five of factors (informal rules, communication, employee volunteering, diversity and inclusion, and formal rules and norms) went down in the ranking. Involvement had the same ranking in both analyses. This comparison highlighted that the factors ranked the lowest, such as engagement and training, have highly ranked connections, whereas high-ranked factors, such as informal rules, and norms have lower ranked connections than other factors. This means that the importance of each EP factor differs when it comes to the ranking of the overall connections of each factor to the rest, except for involvement.

**Table 4 Comparison between EP factors' Friedman test rank and centrality rank. Blue indicates a positive change between the Friedman test and centrality rank, whereas red shows a negative change.**

	Friedman test rank	Centrality rank	Differences
Informal Rules and norms	4	7	-3
Communication	1	3	-2
Employee Volunteering	6	8	-2
Diversity and Inclusion	7	9	-2
Formal Rules and norms	3	4	-1
Involvement	2	2	0
Incentive	8	6	2
Engagement	5	1	4
Training	9	5	4

## V. DISCUSSION

The ranking results provide insights into the ranking of EP factors, where communication was the most important element (first group). The second group includes involvement, formal rules and norms, informal rules and norms, engagement, employee volunteer program, and diversity and inclusion, and the third group includes incentives and training. The reason incentives and training are at the bottom (or almost) may be lack of resources, knowledge (as discussed in [27]), and time. It should be underlined that these rankings broaden the EP factors' discourse and their significance in organizational sustainability (see [15], [53], and [87]).

The results from the centrality analysis provide a detailed perspective on how EP factors are correlated. It should be highlighted that engagement and involvement had the highest centrality, whereas diversity and inclusion and employee volunteering had the lowest correlations. This indicates that employees are engaged with and involved in their organization's sustainability, but may be improved by better addressing employee



volunteering and diversity and inclusion.

The differences in ranking between the Friedman test and the centrality of the factors showed that some EP factors (incentives, engagement, and training) changed to higher ranks, whereas the rank of informal rules and norms, communication, employee volunteering, diversity and inclusion, and formal rules and norms went down. This does not mean that factors low in ranking should no longer be considered, but that strategies should be adjusted for better development or complemented with other EP approaches to help improve sustainability activities.

According to the Kruskal–Wallis test results, all types and sizes of organizations and countries show similar behaviors regarding the EP factors, which contradicts previous findings (see [52], [85], and [87]) stating that factors (e.g., employee volunteering, and diversity and inclusion) depend on the organization's size.

The analysis of the factors and their relationships highlights that employees are an important part of the organizational systems and key contributors to making organizations more sustainable oriented (c.f. [9] and [25]). The application and integration of EP factors into the organizational system may help increase the productivity of employees, take more sustainable actions, and make societies more sustainable (see [2] and [30]).

## VI. CONCLUSION

Organizations (CSOs, companies, and PSOs) have been integrating sustainability issues into their systems. Most organizational sustainability approaches have been introduced, focusing mainly on “hard” technocentric issues and managerial implications, yet organizations must also consider “soft” issues. Employees are a core part of the human dimension of the organizational systems and play an active role in the implementation of sustainable practices. However, there has been limited research on the factors of EP factors for organizational sustainability. The purpose of the article is to investigate the importance of EP factors and how these factors are interrelated.

A survey was conducted and sent to 5299 people to investigate the significance of EP factors and how they are correlated with the utilization and contribution of sustainability to organizations. This survey achieved a 6.51% complete response rate. These responses were analyzed using the Friedman tests to rank the EP factors, the Kruskal–Wallis test to compare EP factors, organizations, and countries, correlation analysis between EP factors, and centrality measures.

The ranking results highlight that all factors are important for organizational sustainability, albeit some more than others. The results helped to create three EP factor groups. The correlation and centrality analyses showed that all factors are interrelated.

This article provides insights into EP factors by the following:

- 1) ranking of EP factors in organizations;
- 2) analyzing the interrelations and centrality of the EP factors in organizations;
- 3) comparing the rankings, the interrelations, and centrality of the EP factors.

This article contributes to organizational sustainability by focusing on the human dimensions through the EP factors and how they interrelate.

The analysis of the factors and their relationships emphasizes that employees are an important part of the organizational systems and key contributors to making organizations more sustainable. The EP factors must be recognized and integrated to implement sustainability more efficiently in organizations. The EP factors should be addressed in a holistic and systematic way to achieve organizational sustainability. No organization exists without its employees, and no organization can become sustainable without engaging them.

Further research needs to focus, for example, on how each EP group can be better enhanced in implementing sustainability and organizations. Another interesting aspect for future research is to investigate the factors that hinder EP in organizational sustainability.

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