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CASE STUDY: HOW AN ORGANIZATION CAN ENCOURAGE EMPLOYEES' PRO-ENVIRONMENTAL BEHAVIORS

Sustainable Entrepreneurship Project, MSc Sustainable Entrepreneurship

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June 9, 2022

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ABSTRACT

Although it appears that employees' participation in the companies' green journey toward sustainable development is needed, it is not clear what organizations could do to involve them in this process. This study analyzes the literature on factors influencing the adoption of Pro-environmental behavior and proposes a new framework that divides factors into internal and external to the workplace to highlight the areas of intervention on which an organization can focus to make employees act more pro-environmentally. This study used a qualitative case study as a research design, interviewing seven employees of a Dutch sustainable company that has already implemented some activities to increase the employees' adoption of pro-environmental behaviors. The results were then compared to the theory and five areas of intervention were highlighted. This thesis contributes to enriching the literature on employees' PEB. Secondly, it contributes to closing the theory-practice gap in the field of sustainable entrepreneurship by giving a practical perspective and giving practical implications to managers and decision-makers.

INTRODUCTION

We are in the middle of a climate crisis, and the concept of sustainability, although it does not yet have a single definition, is now becoming more widely known. As the Sustainable Development Goals (SDGs) highlight, all individuals and organizations, both public and private, are called upon to play their part (de Haan, Jansen & Ligthart, 2015). In recent years, the importance of a change from a traditional style of entrepreneurship to a more sustainable one has emerged (Argade, Salignac, & Barkemeyer, 2021). This need has led scholars to investigate the role of organizations, and this produced several studies in the field of sustainable entrepreneurship.

Although the literature is still young, it is possible to find studies that analyze how to incorporate the concept of sustainability within the business model (Schaltegger, Lüdeke-Freund & Hansen, 2012; Bocken, Short, Rana, & Evans, 2014), how to establish sustainable alliances with other companies (Stadtler & Lin, 2017), the importance of communicating one's sustainable practices outside the company (Marquis & Toffel, 2012). Less literature focused on the inner organization of the company and on analyzing the contribution and the involvement of employees in making this transition towards sustainable development (Ture & Ganesh, 2018). Indeed, for years research on organizations has focused mainly on the economic outcome and organizational factors (Ismail, 2021) but now that we are approaching a more sustainable way of doing business, scholars, and businesses themselves should not forget about people. This represents a gap in the literature because although studies are confirming the importance of employees' contribution to traditional entrepreneurship (Lopez-Cabrales, Valle & Herrero, 2006), these issues have not yet been expanded upon in sustainable entrepreneurship. However, to improve sustainable performance, it would be useful to increase the sustainable awareness of employees in general and pro-environmental and social activities in particular (Ture & Ganesh, 2018).

In the literature available, it is possible to find theoretical studies such as the one by Steg, Bolderdijk, Keizer, & Perlaviciute (2014) that propose a theoretical framework for encouraging pro-environmental behavior (PEB) through individual and contextual factors. Other studies analyze the role of corporate environmental responsibility (CER) and how it influences employees (Ruepert, Keizer & Steg, 2017; Lülfs & Hahn, 2013). However, existing articles lack practical feedback on the activities implemented by those who should adopt more pro-environmental behaviors. For this reason, understanding which are the areas of intervention, the effectiveness of the activities implemented and discovering other factors influencing the adoption of PEB at the workplace, could add some knowledge both to the theory and the practice of sustainable entrepreneurship. This paper uses a qualitative approach adopting a case study as a research design and taking as a reference Omrin, a Dutch waste collection, and disposal company. Omrin has already implemented some activities to encourage employees' behaviors towards sustainability. Despite being already considered sustainable, Omrin wants to increase the employees' sustainable awareness further, and improve their sustainable behaviors. In addition, Omrin communicates both internally and externally the environmental activities that are part of their CER. For this reason, it represents a good case to analyze how to encourage employees' PEB from a practical perspective, through the analysis of the employees' point of view.

This paper seeks to identify factors that a company could use to enhance PEB among workers and it does so by seeking an answer to the following RQ: *How can an organization encourage employees' pro-environmental behaviors?*

The purpose of this thesis is to enrich the existing literature on employees in sustainable entrepreneurship, specifically on their pro-environmental behaviors at the workplace. Secondly, the paper aims to link theory and practice in the sustainable entrepreneurship literature giving a

practical evaluation of pro-environmental behaviors in the workplace. Indeed, the results of studies in this field often contain implications that would be useful to entrepreneurs, managers, and decision-makers, yet due to their high theoretical approach, these results are often not understood.

The answer to this research question could be useful for several actors. Firstly, it could have managerial implications. Knowing how to increase the level of sustainability within the company could lead to an overall increase in the level of sustainability of the organization. Secondly, researchers could benefit from the practical perspective given by this study.

The next section presents a review of the literature on PEB, and a theoretical framework is presented. After that, there is a method section where the methodology is explained. Lastly, the main findings highlighted through the data analysis are reported and discussed.

THEORETICAL BACKGROUND

Pro-environmental behaviors at the workplace

Ture & Ganesh (2018) point out that if a company wants to embark on a journey toward sustainability should consider that employees play a significant role in an organization's green path. They also argued that over the years the daily activities of employees within different departments have been largely ignored. However, they highlighted that these activities are nothing when viewed individually but are extremely impactful when viewed all together. That's why it is important to understand how to incentivize behaviors that benefit the environment.

This paper focuses on a particular category represented by PEB that is different from the more general category of environmental behaviors. In fact, the latter also contains both actions that have a negative effect and those that have a positive effect on the environment (Steg & De Groot, 2019). In their book, Steg & De Groot (2019) point out the existence of several terms that describe the same concept such as "pro-environmental behaviors", "environmentally friendly behavior",

"ecological behavior" and "conservation behavior". Throughout this thesis, the first term will be used. Examples of PEB include following a vegetarian or a vegan diet, choosing the most environmentally friendly way to get to work, turning off electronic devices when not in use, minimizing water use, and avoiding the use of disposable plastic (Park & Ha, 2012; Lu, Liu, Chen & Long 2019). Pro-environmental behaviors in the work environment are defined by Ture & Ganesh (2018) as activities, direct or indirect, undertaken by an individual (at their workplace), which they think will improve or help to improve the natural environment.

In this section, the literature on factors influencing PEB is analyzed offering a new perspective diving into internal and external factors to the workplace.

Internal factors to the workplace environment

More than just “training”

Education can take place in different ways, the most common practices being Education and Awareness (EAA), which consists in sharing information in various ways, such as offering training courses, posting posters about the environment, sending newsletters, and other different activities (Grilli & Curtis, 2021). The main purpose of these practices is to increase the level of awareness. The concept behind these practices is that theoretically the more a person is aware of a certain problem, the more s/he should mobilize to contribute to its resolution (Steg et al., 2014).

However, the study by Grilli & Curtis (2021) shows that education alone is not enough. Moreover, Lülfs & Hahn (2013) state that it does not lead to a direct increase in PEB, but just an indirect one. Indeed, the authors highlighted that it affects the intention to act pro-environmentally through the activation of the moral obligation to adopt those behaviors. Therefore, EAA practices are not motivating by themselves but are effective only if accompanied by other factors such as a good and trustworthy relationship with co-workers that could enhance the adoption of PEB (Grilli

& Curtis, 2021). Therefore, when studying PEB it is important to take into account other factors besides education.

Corporate Social Responsibility and Corporate Environmental Responsibility

In the literature, many researchers have focused on the macro-level implications of Corporate Social Responsibility (CSR), such as the impact on environmental reputation and corporate identity (Tian & Robertson, 2019). Fewer studies have analyzed the meso and micro-level and the actual perception of CSR within the company, such as the influence of CSR on employees. Raza Farrukh, Iqbal, Farhan, & Wu (2021) argue that the participation of the company in CSR activities enhances employees' motivation to engage in PEB. When employees perceive that the company they work for is acting pro-environmentally, they feel more motivated to contribute and embrace the firm's CSR program (Tian & Robertson, 2019). The environmental aspect of CSR is Corporate Environmental Responsibility (CER), which concerns all the activities linked to environmental consequences of business operations, waste elimination, resource optimization, and productivity maximization (Glavopoulos, Bersimis, Georgakellos, & Sfakianakis 2013). Therefore, CER activities are not a pre-defined set of activities replicable for each organization, it is an umbrella term that includes all the firm's actions concerning its environmental impact. Ruerpert, Keizer, & Steg (2017) confirm that CER does not just increase the environmental performance of the organization but that it positively impacts the employees' PEB when they perceive the company high on CER. For this reason, CER is an important internal factor to the workplace as it has an influence on the approach employees may have towards the environment.

Strategic Human Resource Management practices

Strategic Human Resource Management practices -such as the choice of the right leadership style, incentives, and rewards, but also employees' support -represent one of the internal factors to the work environment that affect employees' PEB (Tian & Robertson, 2017).

Lülfs & Hahn (2013) support the idea that leaders and managers should consider the possible negative effect of green incentives even when they have good intentions and create a sustainability-oriented atmosphere in the workplace before implementing ethical incentives or rewards. Rewards and recognition have a positive influence on the willingness of employees to adopt pro-environmental initiatives (Ramus & Steger, 2000). Blome, Foerstl, & Schleper (2017) study the impact of incentives combined with different leadership styles to find out which is the right combination to increase sustainability behaviors. They discovered that ethical leadership is a driver for ethical behaviors and that ethical incentives are functional just combined with ethical leadership. Otherwise, they could have a negative effect and encourage greenwashing practices, particularly if they are applied together with transactional leadership, which is a leadership style signifying a higher level of authority (Blome et al., 2017). So, how a leader behaves has an impact on employees' behaviors. The concept of ethical leadership is a transformational style of leadership that aims to the improvement of employees' ethical conduct using two-way communication, encouragement, and inspirational decision-making (Lülfs & Hahn, 2013), and is strongly related to the concept of supervisory support.

Supervisory support is a means to evaluate and influence followers' behaviors and it is considered to be another internal factor to the workplace that could help to develop the PEB of employees (Lülfs & Hahn, 2013). Supervisors stimulate sustainable initiatives and increase employees' motivation to act pro-environmentally, and therefore, they increase the employees' organizational identification (Lu et al. 2019).

Organizational identification is defined as a psychological connection between an individual and an organization in which the individual has a strong, self-defining emotive and intellectual affinity with the company as a collective unit (Edwards & Peccei, 2007). It is an important link to study the correlation between the organization and its employees. Because when employees identify themselves with the company they are more willing to work toward the organization's goals (Edwards & Peccei, 2007). Organizational identification can be increased through social norms (Shen & Benson's, 2016).

Social norms represent another factor able to enhance PEB (Lülfes & Hahn, 2013). They are defined as a standard or a desirable manner of behavior to which an individual in a social group attempt to comply (Burke & Peyton, 2011). An example of social norms is co-workers' expectations. These are mainly created by the employees themselves and their interactions, particularly, co-worker expectations ensure that the individual has an incentive not to disappoint the expectations of his or her colleagues (Lülfes & Hahn, 2013). Furthermore, Paillé, Mejía-Morelos, Marché-Paillé, Chen, & Chen (2015) demonstrate by applying social exchange theory (SET) through the lens of an ethics of care that the influence of co-workers impacts the adoption of PEB. Indeed, they demonstrate that the more they feel supported by their colleagues, the more they are willing to adopt PEB. So, the work environment and the relationship with colleagues are important in facilitating PEB at the work context.

TABLE 1 summarized the internal factors to the workplace influencing the adoption of pro-environmental behaviors (APPENDIX A).

The study by Ture & Ganesh (2018) shows that it is not enough to focus on the actions of the company to understand what are the factors influencing employees' PEB. For example, the authors argue that when some employees perceive that the company's actions towards the environment are

satisfactory, they feel less responsible. As a consequence, it may reduce their motivation to adopt more PEB (Ture and Ganesh, 2018). For this reason, it is also crucial to consider external factors to the work environment related to individuals.

External factors to the workplace environment

Several factors external to the work environment have an impact on the adoption of PEB by employees (Ture & Ganesh, 2018). These factors could be clustered into three macro-areas. The first one concerns factors linked to the context outside the company in which the individual lives, such as economic, social, and cultural factors (Lu et al., 2019). The second one is linked to socio-demographic variables such as gender, age, and degree of education (Tian & Robertson, 2017). The last one is characterized by individual factors such as values and personal norms of employees regarding the protection of the environment (Steg et al., 2014; Steg & de Groot, 2019).

This paper will mainly focus on the third area as research showed that are particularly important to look at in predicting PEB (Steg et al., 2014).

Individual factors

In the literature on individual factors that influence employees' behaviors, concepts such as goals, values, personal norms and subjective norms are frequently mentioned (Steg et al., 2014; Tian & Robertson, 2017; Lu et al. 2019). All these concepts are interrelated and influence each other.

Steg et al. (2014) developed an Integrated Framework for Encouraging Pro-environmental (IFEP) and pointed out that people are often aware that behaving pro-environmentally is the right thing to do, but that there are other factors that lead to harmful behaviors. This is because people's behaviors are not exclusively based on what is right or wrong, but are influenced also by other factors such as their goals. Lindenberg & Steg (2007) developed a Goal-Framing Theory based on

three different goals. They argued that people are also influenced by what is more pleasant (hedonic goal), what is more profitable (gain goal), and finally what is more appropriate at the regulatory level (normative goal). The strength of these three goals is not constant throughout the life of individuals and above all is subject to change depending on the various situations. There is also a conflict between these goals as acting normative (i.e. pro-environmental), might impair hedonic or gain goals because pro-environmental behaviors are not always pleasurable or can be costly (Steg et al., 2014). A fundamental role is represented by the values that might help resolve the conflict between these goals.

Values are defined as internal cognitive constructs that drive decisions by invoking a sense of fundamental principles of right and wrong, a perception of priorities, and a desire to make sense of things and perceive patterns (Oyserman, 2015). They are known to be stable over time, for this reason, they can be considered predictors of human behavior (Schultz & Zelezny, 1999). In our specific case, it is useful to know the employees' values to understand how to improve and incentivize PEB. Steg et al. (2014) in their book explain that there are four relevant values in the case of PEB: altruistic - related to helping people in general-, biospheric -related to protecting the nature and the environment -, egoistic - related to maximizing individual benefits such as money or/and power-, and finally the hedonic one - focused on feelings, pleasure, and efforts. They affirm also that biospheric values are most strongly related to the adoption of pro-environmental behaviors, followed by altruistic ones. Egoistic and hedonic values are instead negatively related or not related to PEB. While values are difficult to change, it could be possible to activate a value in a certain context (Steg & De Groot, 2019).

For example, the presence of communication of the company's CER might activate biospheric values (Ruepert et al., 2017). A further way to activate values is through the concept of

personal norms. Indeed they reflect the moral obligation to adopt actions toward the environment (Stern, 2000). This is because personal norms are influenced by conscientiousness and more in general by individual motivation (Tian & Robertson, 2017). They are activated when people are conscious of environmental problems caused by their behaviors. So, feeling responsible as a person for these problems, make them activate personal norms and consequently might make people engage in pro-environmental actions (Sabbir & Taufique, 2022). Therefore, increasing the level of conscientiousness of employees might lead to an increment in the adoption of PEB.

Another individual factor that is found to be crucial is “subjective norms” (Tian & Robertson, 2017). They are defined as a person's purpose of complying with perceived pressures to do a specific conduct; additionally, a person's behavioral intentions have been discovered to be connected with subjective norms (Lam, Baum, & Pine, 2003). Subjective norms are linked to the individual decision-making process, and it concerns how a person responds to social pressure and acts consequently (Sabbir & Taufique, 2022). They are particularly important in the context of PEB because due to the desire to act in accordance with the opinion of people who are relevant to the individual, people are more willing to adopt a certain behavior - in this case PEB- when they experience social pressure (Lam, Baum, & Pine, 2003).

TABLE 2 summarizes the external factors to the workplace influencing the adoption of pro-environmental behaviors (APPENDIX A).

New perspective

Based on the literature a framework making the distinction between internal and external factors to the workplace environment is proposed in order to highlight the area of interventions on which the company can exert an influence (TABLE 3). Internal factors cover four areas that stem from the workplace. Company's CER (Ruepert, Keizer, & Steg, 2017), activities related to Education

and awareness (Steg et al., 2014), Strategic HRM practices - choice of the leadership style, the use of incentives and rewards and supervisory support (Blome et al., 2017; Ramus & Steger, 2000; Lülfs & Hahn, 2013)-, factors developed in the workplace environment -organizational identification, relationship with co-workers and social norms (Edwards & Peccei, 2007; Paillè et al., 2015; Lülfs & Hahn, 2013).

External factors are all those factors that belong to the environment outside the enterprise. They are represented by three main areas. Individual factors -values, goals, personal norms and subjective norms (Steg et al., 2014; Lindenberg & Steg, 2007; Stern, 2000; Sabbir & Taufique, 2022)-, contextual factors -economic, social and cultural (Lu et al., 2019)-, and socio-demographic factors -gender, age and level of education (Tian & Robertson, 2017). As will be discussed below, both factors are likely to influence employee PEB but with varying strengths.

TABLE 3

A theoretical framework based on the literature on factors influencing employees' PEB

FACTORS INFLUENCING EMPLOYEES' PEB	
Internal factors to the workplace	External factors to the workplace
Corporate Environmental Responsibility	Individual <ul style="list-style-type: none"> - Values - Goals - Personal norms - Subjective norms
Education & Awareness <ul style="list-style-type: none"> - Activities oriented to increase employees' knowledge of environmental issues. 	
Strategic HRM practices <ul style="list-style-type: none"> - Leadership style - Incentives and rewards - Supervisory support 	Contextual <ul style="list-style-type: none"> - Economic - Social - Cultural
Workplace environment <ul style="list-style-type: none"> - Organizational identification - Social norms - Relationship with co-workers 	Socio-demographic <ul style="list-style-type: none"> - Gender - Age - Level of education

Having analyzed the literature on internal and external factors influencing the employees' adoption of PEB, this study will explore employees' points of view with the aim of enriching the existing literature on PEB and giving a practical evaluation that aims to highlight the areas of intervention in which an organization can focus to enhance PEB at the workplace.

METHODOLOGY

Research design

This research used a qualitative case study approach as a research design. Case studies are usually used to study a particular topic in depth (Given, 2008). Qualitative methods provide a "deeper" understanding of social phenomena than quantitative ones (Gill, Stewart, Treasure, & Chadwick, 2008). Moreover, the qualitative method is generally preferred when authors are interested in the interpretation and contextualization of people's beliefs and practices (Baskarada, 2014).

The case study is represented by Omrin which represents a good example to analyze which are the best factors and areas of intervention to encourage PEB and an opportunity to gain a practical point of view on the previously analyzed theory.

Materials

Semi-structured interviews were conducted to collect data. The interviewer followed an interview guide written in advance with open-ended questions based on the theory presented above (Given, 2008). A semi-structured approach is preferred over a structured and an unstructured one to better analyze the data gained from the different interviews (Eriksson & Kovalainen, 2008). Indeed, structured interviews are a set of predefined questions and do not allow in-depth analysis, while

unstructured ones are not based on a list of predefined questions or theories and therefore are difficult to manage (Gill et al., 2008).

The language used for all the interviews was English. The first interview was with a manager one of whose functions is to offer sustainability support. This interview has the aim to gain information about the company's activities. The information gained were used to make more specific questions during the semi-structured interviews with employees.

Participants

In total, seven employees of Omrin were interviewed. Since random selection is not preferable for qualitative research (Eisenhardt, 1989), the participants needed to meet some requirements. The employees needed to have full-time employment for at least two years and needed to be from different departments. Moreover, the sample needed to be mixed in age and gender to have a more varied example, and to minimize age and gender biases. The practical supervisor from the company was responsible for the selection of the participants.

Data collection procedure

Data were collected in the period from April 2022 to May 2022. Due to Covid19, online meetings were preferred to face-to-face interviews to minimize the risks. Before the interviews with employees, an introductory meeting with a figure who represents a sustainability support role within Omrin took place. Each interview lasted approximately one hour. For this reason, to prevent the interviewer from becoming tired, no more than two interviews were carried out on the same day. All interviews were carried out at approximately the same time of day to avoid significant differences from one to another. Before each interview, participants were briefed on how the

interview would be carried out. During the questions, the main topics were explained to avoid misunderstandings during the interviews (i.e. information bias).

The interview with the sustainability support was an introductory meeting with the aim of understanding the activities implemented by the company to encourage employees' PEB.

Based on this meeting, the interview guide for the employees' interviews was constructed. The guide was focused on the influence and the perceived changes related to the activities implemented by Omrin in each area. In addition, they were asked about the influence of individual, contextual, and social demographic factors on the adoption of PEB. For more information about the interviews, please check the interview guide (APPENDIX B).

Data analysis

The questions for the interviews were based on the theory analyzed in the literature review, and on the information gained in the introductory meeting. The interviews - with the permission of the respondents - were recorded and then transcribed. Afterward, coding was used to classify, organize, and summarize the data obtained through the interviews.

An abductive method was chosen considering both data and existing theory (Gioia, Corley, & Hamilton 2013). Abduction is open to innovation in case there are any surprises highlighted by the data that are not reflected in the theory (Subjack, 2016).

The data structure used to analyze the data was the one proposed by Tracey, Phillips & Jarvis (2011). Three levels of analysis were used. The first level is represented by the point of view (e.g., quotes) of all the employees on the same theme. These themes represent the second level (e.g. leadership style, rewards, incentives). The third is given by the category in which themes are grouped (e.g. strategic HRM practices) (Corbin & Strauss, 1990). Through the data analysis, it was possible to connect the literature to the collected and coded data.

Quality of the research

To ensure consistency of research, the interviewer presented the same topics to all interviewees, trying to maintain the same circumstances. To guarantee that the results would not change significantly according to the respondents, the sample was diversified, and the recruitment period had to be longer than two years. To ensure the accuracy of the study, findings were compared to the literature. Finally, to reduce possible employee's bias, the interviewer asked to find a quiet place where other people cannot hear the interview, and was assured that the results will not be shown to the employer.

Ethical consideration

Participants received an informed consent before the interview explaining how the data will be analyzed, the purpose of the research, and who will have access to it. In addition, to ensure that their anonymity is respected, employees are asked for permission to record the whole interview, this is relevant for ethical and legal reasons (Given, 2008). If they would prefer not to answer some questions for personal reasons, they could have abstained without giving any further information. More information on ethical considerations can be found in the informed consent (APPENDIX C).

RESULTS

In this section, the key findings highlighted after the data analysis are reported divided by internal and external factors to the workplace environment.

Internal factors to the workplace environment

Key findings related to the internal factors affecting the adoption of PEB are summarized in TABLE 4 (APPENDIX A).

Corporate Environmental responsibility

All the participants argued that they are more willing to adopt PEB because of the company's CER. *"I'm finding all new solutions that I wouldn't have found as I didn't work for Omrin. So there it really affects also my personal behavior"* (Interviewee 2, page 10, line 371:373). *"The more efforts are indoors to achieve sustainable goals, the more my behavior will improve. Yeah, improve. Definitely."* (Interviewee 3, page 8, line 312:314)

Education and awareness

Employees agree on the fact that education and awareness are important - *"You can live without thinking about environmental things [...]. But if you hear it often enough, then you've got to do something with it"* (Interviewee 1, page 4, line 132:133); *"It starts always with knowledge"* (Interviewee 2, page 4, line 128). Three out of seven respondents have joined a training course focused on the wide concepts of sustainability.

All the employees believe that a follow-up and the use of both theory and practice in training courses could be useful to enhance the adoption of PEB. *"If you back home, you're back in the old system. [...] Organize a follow-up course [...] might help very much"* (Interviewee 2, page 4, line 142:145). *"Practices will make it easier to apply on your daily work"* (Interviewee 3, page 4, line 132:133).

Six out of seven employees argued that these training courses should be mandatory, otherwise few people will join them. *"[...] you have to make it mandatory because otherwise the half of your employees won't come. [...] that's in fact, in practice what is happening."* (Interviewee

4, page 3, line 100:101). *“If you really want to get your employees in the same direction of working for the same goal. I think, they should be obligated. Definitely.”* (Interviewee 3, page 5, line 163:164)

The Vlogs of Dutch celebrities testing sustainable products were perceived as effective by four employees. *“These are really simple examples of how you get less waste. So I'm definitely convinced that it works”* (Interviewee 3, page 5, line 193:194). Three did not perceive an influence on their adoption of PEB. *“I think I don't change my behavior by viewing that kind of videos.”* (Interviewee 4, page 3, line 114:115).

Most participants argued that education and awareness is not the only factor to be considered. *“Even though I suppose my colleagues know the theoretical part, because they work at our company. And still, it's not obvious that they change their behavior.”* (Interviewee 1, page 7, line 269:271)

The respondents suggested several new activities which could be helpful to enhance the adoption of PEB. Interviewee 1 believes that employees adopt PEB if they can benefit from them. So, the suggestion of the respondent is to involve employees in fun activities based on games and competitions. This belief is shared by other 3 interviewees. Interviewee 2 suggests creating a network and community to discuss these topics. Interviewee 3 believes that all the different activities should be alternated to reach more people. *“Show them proof, what their impacts can be.”* (Interviewee 4, page 4, line 139). Interviewee 7 believes it would be helpful to do three months of an internal marketing campaign on a single topic and then change it.

Strategic Human Resource Management practices

Five out of seven employees perceive a direct influence on the adoption of PEB from their manager. *“They're sending a good example. [...] My manager, she's always willing to learn and to try new things. So that's really cool”* (Interviewee 6, page 6, line 199:208).

Rewards have a positive impact on six out of seven respondents. *“I think it works. It makes you feel like you're part of the company it binds”* (Interviewee 1, page 8, line 315). Interviewee 2 is not influenced by rewards *“because it doesn't make me run faster”*(page 8, line 294).

All the interviewees think incentives would positively affect their adoption of PEB. Six out of seven believe that in-kind incentives would work better. *“I don't really believe in financial incentives just to change behaviors. But for example, if you offer surprises, then it's, it's the way to go”* (Interviewee 2, page 8, line 299:300). Just Interviewee 4 says that *“the difference is little”* between financial and non-financial (page 6, line 214).

The introduction of a supervisor is positively seen by six respondents. *“if you've got someone who's pushing it, maybe things will accelerate a bit more”* (Interviewee 1, page 11, line 404:405). *“I think it would be necessary here, could help us to indicate the goals, to follow up the goals. And it could help us to evaluate the path we were and help us making choices for future, I think it will help us and employees to indicate our own behavior on a total goal. So definitely, I think it would be yes, I would. It would be a welcoming support for the employees.”* (Interviewee 3, page 8, line 193:197). Interviewee 5 said *“I don't think it will make much difference. [...] I would be curious to see what he can achieve”*(page 4, 135:142).

Workplace environment

All the participants are highly identified with the company. All the respondents have a good and supportive relationship with their co-workers. *“I have a good relationship with my co-workers. We encourage each other, we can be honest to each other”* (Interviewee 4, page 7, line 275:276).

Interviewee 6 stated that *“it's difficult to make contacts”* and that the workplace environment could be improved, also aesthetically (page 8, line 312).

Four out of seven are influenced by co-workers' expectations. *“You don't want to be that guy that doesn't cooperate.”* (Interviewee 4, page 8, line 293).

Interviewee 2 argued that there is a clear social value within the workplace environment. *“We adopted the sustainable development goals from the United Nations. And that's actually our highest value. We say okay, this, this is what we want, to create a better world for the future generation”* (Interviewee 2, page 12, line 445:447). But for the other employees, it was not a clear concept. *“They are not our core values, yet. They feel more like external values, not our values. But it needs time.”* (Interviewee 3, page 10, line 368:369).

External factors to the workplace environment

Key findings related to the external factors affecting the adoption of PEB are summarized in TABLE 5 (APPENDIX A).

Individual factors

The participants have different strengths values and goals. All of them agree with the fact that their values and the strength of their goals influence their adoption of PEB. Five out of seven put the biospheric value as first or second in order of importance. Only Interviewee 4 put it as the last one.

Five out of seven respondents think that their adoption of PEB is affected by social pressure. *“The social pressure is quite big, I think”* (Interviewee 4, page 11, line 435:436). *“It's quite normal to behave pro-environmentally. So it's, when you don't do it, you feel pressure.”* (Interviewee 3, page 13, line 492:493).

Contextual factors

All the participants identify their household as high or middle income. All of them apart from Interviewee 3 think that it has an influence on their adoption of PEB. *“For us it's possible to buy more expensive foods, which are more healthy and more sustainable, and things like that. And if you're lower income, that's different.”* (Interviewee 2, page 14, line 542:543).

Five participants identify themselves as a sociable person, the other two in the middle between a sociable and a solitary person. All of them agree that it has a positive influence on their adoption of PEB.

All the employees of the sample consider their level of information on sustainability and related topics as high.

Social-demographic factors

Four participants identified themselves as female and three as male. Three of them think that women are more willing to adopt PEB. *“My experience is, is that the subject is more adopted by women than by men”* (Interviewee 2, page 15, line 579). The other four think that the adoption of PEB is not gender-related.

Four respondents have higher professional education (HBO degree). Interviewee 2 has a master's degree. Interviewee 4 has a bachelor's degree and lastly, Interviewee 7 has a secondary level of education (high school). Three out of seven think that the level of education does not influence the adoption of PEB because it is more about the interest someone has toward the environment. *“I don't think that affected. It is the way that it's more the kind of person you are and the interest you have in the world around you”* (Interviewee 5, page 9, line 337:338). The rest of the interviewees believe that a higher level of education can help the adoption of PEB. *“Once you*

enter the university and you start a study, you're already sure or at least should be a little curious about everything” (Interviewee 2, page 16, line 606:607).

DISCUSSION

In the current study, I aimed at investigating which are the area in which an enterprise can focus to increase the employees’ adoption of PEB by answering the research question: *How can an organization encourage employees’ pro-environmental behaviors?* Below I will discuss the main study findings. First, the results divided per area of intervention are interpreted and compared to the literature highlighting the theoretical and practical implications. After that, limitations and suggestions for further research are outlined.

Theoretical implications

Corporate Environmental Responsibility

The data analysis highlighted that all the respondents perceived an increment in their PEB due to Omrin’s CER activities. Studies, such as the one of Tian & Robertson (2019) and the one of Ruepert, Keizer, & Steg (2017) confirm that employees’ PEB increase when they perceive that the company is willing to adopt activities to benefit the environment.

Therefore, sharing CER activities with employees is an important operation to be considered.

Education and awareness

The results highlight several aspects of training courses that are reflected in the theory. The purpose of training courses is to increase awareness Steg et al. (2014) argued that the more a person is aware of a topic, the higher is the motivation to contribute to the solution. Although this concept is shared in the perception of the participants, only three out of seven employees have joined a training course. This dissonance could be explained by the attitude-behavior gap (Higham, Reis,

& Cohen, 2016), meaning that having a positive attitude towards joining a training might not necessarily mean people would indeed execute this behavior. The study of Curado, Henriques, & Ribeiro (2015) affirms that courses have a greater effect when they are on a voluntary basis. On the contrary, six out of seven participants agree that this specific type of training course should be on a mandatory basis. Otherwise, the attendance would be very low and it would create a knowledge gap between employees. Another result highlighted through the interviews was that combining practice with theory would lead to a reinforcement of the concepts and an increase in employees' pro-environmental behaviors. The perception of the employees involved in this research was that the more applicable a concept is in private and work life, the more an individual understands what the impact of one's actions is and the more willing an individual is to change his/her behaviors. The sampled employees believe that a follow-up after a set timeframe would help to better assimilate the concepts.

The results highlight that training courses are not the only activity that incentivizes the adoption of PEB, which has also been claimed by Grilli & Curtis (2021). In fact, more than half of the participants encountered a positive effect on their behaviors from other activities. For example, after viewing Vlogs posted by celebrities testing sustainable products. Other activities that emerged through the interviews include fun-focused activities such as competitions and games; networking and sharing opportunities; quarterly internal marketing campaigns focused on a single topic. In the literature, the strategy to use multiple delivery methods is considered to be effective (Alshaikh, Maynard, Ahmad, & Chang, 2018).

Strategic Human Resource Management practices

In the literature review, it was claimed that increasing the level of awareness and education helps to adopt PEB but if considered alone is not enough (Grilli & Curtis, 2021). This theoretical concept

is reflected in employees' perceptions. In fact, this research shows how important are the strategic HRM practices highlighted by Tian & Robertson (2017). The leadership style adopted, for example, influences employees' adoption of PEB through the manager's behaviors. So does the use of rewards and in-kind incentives. These three factors were found to be positively correlated with PEB adoption as evidenced in theory.

The concept of supervisory support does not currently exist in Omrin, but it is a factor highlighted in the literature to stimulate, develop, and monitor employees' adoption of PEB (Lülfes & Hahn, 2013; Lu et al. 2019). This concept has been positively embraced as an idea by Omrin's employees. Most of them would like to have a supervisor because they believe it is critical to accelerating change and changing mindset.

Workplace environment

A further area of intervention that the company can leverage to incentivize PEB is related to the work environment. It is highlighted in the literature that the more an employee identifies with the company, the more oriented s/he is to work toward the achievement of the company's goals (Edwards & Peccei, 2007). This was also reflected in the participants as they all admitted to identifying with the company and perceiving changes in their habits and behaviors since working for Omrin.

Paillé et al. (2015) emphasized the importance of co-workers' influence in the workplace environment. Also, Grilli & Curtis (2021) highlighted the need for a strong inter-community relationship. Participants in the sample claim that they have a good relationship with colleagues and that this positively affects their adoption of PEB. Kamarulzaman, Saleh, Hashim, Hashim, & Abdul-Ghani (2011) in their study confirm that the physical design of the workplace has an

influence on employee behaviors. Some respondents suggest that there is a lack of a pleasant place where employees can take a break together, however it is an important factor to consider.

A final concept related to the work environment is the creation of a social norm (Lülfes & Hahn, 2013). Omrin's employees believe that enforcing social norms can help them adopt PEB more. In Shen & Benson's (2016) study, this idea is confirmed. In addition, their research states that it could strengthen organizational identification.

External factors to the workplace

Employees are also influenced by aspects outside the workplace (Ture & Ganesh, 2018). This concept has also been confirmed by employees. The strength of values and goals influence their behaviors toward the environment. But it is difficult for the company to have an influence on them because they are stable over time (Steg & de Groot, 2019; Schultz & Zelezny, 1999). Although it is difficult to change them, what a company could do is try to activate them through different activities (Steg & de Groot, 2019). The most important for the adoption of PEB is the biospheric one (Steg & de Groot, 2019).

A further individual factor influencing PEB is subjective norms that concern the process of norm processing the social pressure and acting accordingly (Sabbir & Taufique, 2022). Five out of seven participants are more willing to adopt PEB when they feel social pressure.

Interviewees confirmed that there are contextual (Lu et al. 2019) and socio-demographic factors (Tian & Robertson, 2017) that influence their adoption of PEB. However, there was no evidence that companies can influence these factors as these are factors outside of the control of companies. Therefore, these two categories do not represent areas of intervention.

Practical implications

Taking into account the results obtained from the interviews and the comparison with the theory, the research question can be answered. A company, in order to incentivize employees' pro-environmental behaviors, should focus on the areas on which it can exert influence, namely the internal factors to the workplace highlighted in the proposed framework and slightly on individual factors. In fact, companies have no influence on factors related to the contextual and sociodemographic sphere. This research highlights five main areas of intervention.

The first one is "CER", employees should be aware of the company's CER activities. Communicating the involvement of the organization in activities toward the environment leads employees to act more pro-environmentally.

"Education and awareness" is the second area of intervention, a company should evaluate and understand if it is better to make employees take mandatory or voluntary courses on the basic issues affecting sustainability. These courses should include practical implementations related both to work and private life that allows employees to understand the impact of their behaviors. In addition, the company should organize follow-ups after a set timeframe so that the concepts learned are best assimilated. Alternating different activities parallel to the courses, based on the active involvement of employees through games and competitions, but also creating moments to confront each other by creating networks and communities, would be useful.

The third one is represented by "Strategic Human Resource Management practices". Managers should be made aware and accountable for their influence on employees' behaviors, they represent an example in the adoption of PEB. Rewards and in-kind incentives are a good way to incentivize PEB. The introduction of a supervisor is useful not only to stimulate but especially to evaluate the progress of these changes.

After that, there are the factors concerning the “work environment”. Identification with the company, relationships with colleagues, and the presence of social norms are essential elements that should be taken into consideration when enhancing a behavioral change.

The last area of intervention is “individual factors”. A company can indeed activate specific values through activities. In the context of PEBs, the value to be activated is the biospheric value and it could be activated for example communicating the company’s CER activities and through personal norms. In addition, a company can take into account employees’ subjective norms. As they relate to how an individual processes social pressure. One could create a behavioral standard that in turn creates social pressure that raises the moral obligation to act pro-environmentally.

Limitation

This study has several limitations. First, online interviews due to the Covid19 pandemic have been preferred to traditional face-to-face interviews, meaning that non-verbal communication was lost. In some cases, internet speed issues and camera problems affected the interview process.

Language posed another barrier since neither the interviewer nor the interviewees were native English speakers. Before beginning the interview, most of the interviewees pointed out that they had not spoken English for a long period of time. In addition, during the interviews, several participants were using an online translator to convey arguments. The respondents highlighted the difficulty of expressing themselves in English several times. Probably this also affected the quality of their feedback.

There are two limitations related to the sample. One is related to its size. Indeed, 7 employees out of more than 500 may not represent the entire population. The second one is that all seven identified their level of knowledge on issues related to the environment and sustainability as a high level.

A further limitation is represented by the challenge of finding a figure within the company who was aware of all the activities undertaken by the company towards the enhancement of employees' pro-environmental behaviors.

Lastly, the study sample is smaller than initially planned. With more time it would have been possible to obtain a larger sample size that better reflected the target population.

Contribution and further research

Although there are several limitations to consider, this research has brought contributions to both the theoretical and practical levels. Firstly, this research enriches the literature on employees' PEB. Moreover, it contributes to closing the gap between theory and practice in the field of sustainable entrepreneurship by adding a practical perspective. Furthermore, this study highlights the area of intervention for managers and decision-makers who want to increase the adoption of PEB at work. But also, more in general, it contains implications for all the managers who want to increase the level of sustainability within the company taking into consideration employees' contributions.

Future research could test the results of this study in three different ways. The first is through a larger sample that considers employees from all departments of the company with different levels of information on issues affecting sustainability. A second way is to use a cross-sectional research design to compare employees' perceptions of the same factors in different companies and different industries. Lastly, future research could use observations to analyze the actual changes in employees' behaviors after the implementation of the suggested activities.

CONCLUSION

Given the climate crisis we are experiencing, reducing our impact on the environment is necessary both at the individual level and as organizations. The contribution that employees can make to

increase the level of sustainability within the enterprise cannot be underestimated. This research is focused mainly on the Pro-environmental behaviors (PEB) of employees at the workplace. Therefore, the research question is: *How can an organization encourage employees' pro-environmental behaviors?* A qualitative method based on a case study was chosen. The case study is represented by a sustainable Dutch company that has already implemented some activities to increase employees' awareness, and which is trying to improve their behaviors towards the environment. Seven employees were interviewed through semi-structured interviews. The results were then compared to the literature have highlighted five areas of intervention that decision-makers can take into consideration when deciding how to encourage the adoption of PEB at the workplace. The areas of intervention are: CER, Education and awareness, Strategic Human Resources Management practices, workplace environment, and – in a slighter way- individual factors.

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APPENDIX A

TABLE 1

Internal factors to the workplace influencing employees' PEB

Literature	Relation to PEB
CER	Perceived CER: if employees perceive that the company, they work for is acting pro-environmentally, they feel more motivated to act more pro-environmentally. (Ruepert, Keizer, & Steg, 2017)
Education and awareness	Sharing information in various ways. The more a person is aware of a certain problem, the more he or she should mobilize to contribute to its resolution. (Steg et al., 2014)
Leadership	The leadership style influences employees' adoption of PEB. Ethical leadership is a driver for ethical behaviors. (Blome et al., 2017)
Incentives	Ethical incentives are functional to enhance PEB combined with ethical leadership. (Blome et al., 2017)
Rewards	Rewards and recognition have a positive influence on the willingness of employees to adopt pro-environmental initiatives (Ramus & Steger, 2000)
Supervisory support	Supervisors stimulate sustainable initiatives and increase employees' motivation to act pro-environmentally. (Lülfes & Hahn, 2013)
Organizational identification	When employees identify themselves with the company, they are more willing to work toward the organization's goals (Edwards & Peccei, 2007)
Social norms	Coworkers' expectations: They could enable PEB. An individual has an incentive not to disappoint the expectations of colleagues. (Lülfes & Hahn, 2013)
Relationship with colleagues	The more employees feel supported by their colleagues, the more they are willing to adopt PEB. Therefore, it is important to create a good work environment. (Paillé et al., 2015)

TABLE 2
External factors to the workplace influencing employees' PEB

Literature	Relation to PEB
Contextual factors	The economic, social, and cultural factors could affect the adoption of PEB. But the company can't influence it. (Lu et al., 2019)
Social demographic factors	Gender, age, and level of education could affect the adoption of PEB. But the company can't influence it. (Tian & Robertson, 2017)
Individual factors	<p>Goals: hedonic/gain/normative, the strength of these goals change during the lifetime and affect the adoption of PEB. (Lindenberg & Steg, 2007)</p> <p>Values: Biospheric/altruistic/egoistic/hedonic. Values are more stable during the lifetime and can predict behaviors. Biospheric value is the one most closely related to pro-environmental behaviors. (Steg et al., 2014)</p> <p>Personal norms: reflect the moral obligation to adopt actions toward the environment (Stern, 2000)</p> <p>Subjective norms: concern how a person responds to social pressure and acts consequently (Sabbir & Taufique, 2022)</p>

TABLE 4

Results: employees’ perception on internal factors to the workplace influencing their PEB

1 st order – concepts							2 nd order - Themes	Aggregate dimension
Int. 1	Int. 2	Int. 3	Int. 4	Int. 5	Int. 6	Int.7		
Omrin’s CER has a positive impact on the adoption of PEB	“I’m finding all new solutions that I wouldn’t have found as I didn’t work for Omrin. So there it really affects also my personal behavior.”	“The more efforts are indoors to achieve sustainable goals, the more my behavior will improve. Yeah, improve. Definitely.”	Omrin’s CER has a positive impact on the adoption of PEB	“you take that home, and that makes you aware of what you’re doing at home”	“that’s because why I try to work here”	“I think it’s important that your strategic goals are clear. And helps you also to think that way”	Perceived CER	CER
Light waste management Behavioral change.	No training courses	No training courses	No training courses	No training courses	Behavioral change	Circular purchasing	Training courses	
“The repeating, I think that’s the secret of getting change the behaviors”.	“If you back home, you’re back in the old system. [...] Organize a follow-up course [...] might help very much”	It would be helpful also to understand the change made and to monitor if everyone is going towards the same goal.	“I think when you repeat it more than once, you will remember it even better and become part of your system”	“You just fall back to your own routine [...] forget what you’ve learned. [...] So it’s always helpful to repeat education and do it again”	Useful. “To change the habit, you have to really have, to have multiple moments of communication”	It would be useful.	Follow-up	Education and awareness
Voluntary. “you do less when it’s mandatory you remember less you act less, I think, yeah. If it’s your own choice, it’s easier”	“Mandatory option, and people need to go there, then you have to make sure that the course you offer should just align also	Mandatory. “Some courses can be very necessary to change behavior of employees”	“I think you have to make it mandatory because otherwise the half of your employees won’t come. That’s, that’s in fact, in	Mandatory. “I think if you make them voluntary, there won’t be that many applicants.”	Mandatory. Or say that if you don’t want to join the course you have to clearly communicate to your manager that you don’t	Mandatory. “The best thing I think is when it is volunteer. But I think when you have to change, you have to do it mandatory.”	Voluntary or mandatory	

	the daily life to people and that they can do something with it.”		practice what is happening.”		want to follow it.			
It’s useful to use both	“It starts over always with knowledge . [...] But the second thing is how can you enable them to implement these ideas?”	“Practices will make it easier to apply on your daily work. Yeah. So, for me both work the best.”	“I think the combination of theory, theory and practice is very important to make it succeed”	“If you see things done, then you realize that they help. And it's better than to interpret the problems.”	“I think if you make it easier at home, to facilitate”	It is useful to have both.	Theory and practice	
Effective	Effective. “The effect was that I'm not the only one who found this important. [...] I'm part of a community ”	Effective. “These are really simple examples of how you get less waste. So I'm definitely convinced that it works”	Not effective.	Not effective.	Effective. “Being environment ally is not only separating our waste correctly, but it's also reducing your waste”	Not effective. “No, I don't like these videos.”	VLOGS	
“I think people only change if they benefit themselves” “It's always about that kind of things, competition or fun or game or all that kind of things that make people change”	“I'd like to involve people in communities, where they discuss it, and really help find their own solutions.” “The more important you can make the topic, the more people say, okay, I also want to know	Competition between departments could help, but at the same time, it can disconnect the departments. The interview suggests to alternate all the different activities.	“You have to make them enthusiastic, I think it's, it's to show them proof, what their impacts can be.”	“Competition between departments would be really nice. Yes. And if you so you can test product and you can somehow make a challenge of that.”	“It's all about making it easier, so you can do it at home”	Do an internal marketing campaign of ¾ month focused on a single topic and then change it.	Suggestions for other activities	

	something about it.”							
No direct effect of the manager’s behaviors. The influence is more about the experience and the knowledge they share together.	It is important that the managers stimulate the right direction, but their behaviors do not influence this interviewee’s adoption of PEB.	“Absolutely. Because they are an example. And they can, they can indicate what our influence on our department is on the whole goal”	It has an influence on the adoption of PEB.	“They talk about it, the enthusiasm they have about certain new ideas, about printing everything on recycled paper, for instance. And it’s just the way they make you aware”	“Yeah, of course, because they’re sending a good example.” [...] “My manager, she’s always willing to learn and to try new things. So that’s really cool”	“when you are a leader, you have to give an example. Yeah, I think that’s important”	Manager’s behavior	
“I think it works. It makes you feel like you’re part of the company it binds”	They do not influence the adoption of PEB “because it doesn’t make me run faster”	“It affects on me, I want to work more and harder to reach the next goal.”	“Yeah, it makes you think about it even more.”	“it’s always nice to hear someone say thank you. You’ve done well, so I like that. Yeah.”	“I really like it. But it’s it doesn’t have to be, to be too big. I think it’s nicer if it’s personal. And something small”	“I think that’s positive, too. Yeah, I like compliments .”	Rewards	
Non-financial works better. However, <i>“the problem with incentives, people get used to it really quickly. And don’t see it as a reward anymore, but something that’s obligated from the company”</i>	“I don’t really believe in financial incentives just to change behavior. But for example, if you offer surprises, then it’s it’s the way to go”	Non-financial ones.	Incentives work. And “the difference is little” between financial and non-financial.	Non-financial ones.	Non-financial ones.	“Incentives work, but not always financial.”	Incentives	
“if you’ve got someone who’s pushing it, maybe things will accelerate a	Thinks that is needed and it is important to monitor, stimulate and “to	“I think it would be necessary here, could help us to indicate the goals, to	It is needed and could help employees to reach a pro-	“I don’t think it will make much difference. [...] I would be curious to see what he	“I think it will help us to get more circular. Employees will be more environment	It is needed to change faster and act more pro-environment ally.	Supervisory Support	

bit more.” But it should be someone external to the company.	move faster”.	follow up the goals. And it could help us to evaluate the path we were and help us making choices for future”	environmental mindset.	can achieve”.	ally friendly.”			
“I do feel very tied up with the company”	High level of organizational identification.	“I'm going with the flow of Omrin.”	“Since I'm working at Omrin I become a better waste separator, I separate waste in a better way. And my mind, I become a more sustainable person, I guess.”	Identified with the organization.	Identified with the organization.	Identified with the organization	Organizational identification	Workplace environment
“Open”. “it's just like, support and giving support”	Good relationship. Supportive.	Good.	“In general, it's, it's fine. I have a good relationship with my co-workers. We encourage each other, we can be honest to each other. So yeah, it's fine.”	“We can talk to each other, we trust each other. We help each other”	Good, but “it's difficult to make contacts”. The workplace environment could be improved, also esthetically.”	“Fine relationship”	Relation with co-workers	
No great effect.	“It's not really their expectation, [...] I really believe in sustainability [...] So for me it's very normal to behave in this way”	“the more expectations my co-workers, colleagues have, the more I've, my behavior will change.”	“you don't want to be that guy that doesn't cooperate.”	Sometimes they influence the adoption of PEB	“My colleagues don't have any expectations about my behaviors, so I'm not affected at all. But if they had, I don't know if I would be affected	The expectations have an influence on the interviewee PEB.	Co-workers' expectations	

					them. I think so.”			
Theoretically it exist. It could be improved.	“we adopted the sustainable development goals from the United Nations. And that's actually our highest value. We say okay, this, this is what we want, to create a better world for the future generation”	Theoretically the SDGs “but they're not really implemented yet. They are not our core values, yet. They feel more like external values, not our values. But it needs time.”	“social values like green energy and other sustainable goals are very important for me too”	“Partly, because there is the big difference between all the staff people”	It should be improved.	\	Social norms	

TABLE 5

Results: employees’ perception on external factors to the workplace influencing their PEB

1 st order – concepts							2 nd order - Themes	Aggregate dimension
Int. 1	Int. 2	Int. 3	Int. 4	Int. 5	Int. 6	Int.7		
Biospheric Altruistic Hedonic Egoistic	Biospheric Altruistic Egoistic Hedonic	Altruistic Hedonic Biospheric Egoistic	Altruistic Hedonic Egoistic Biospheric	Biospheric Altruistic Hedonic Egoistic	Altruistic Biospheric Hedonic Egoistic	Biospheric Hedonic Altruistic Egoistic	Values	Individual factors
Hedonic Normative Gain	Gain Normative Hedonic	Normative Hedonic Gain	Hedonic Gain Normative	Normative Hedonic Gain	Hedonic Gain Normative	Normative Hedonic Gain	Goals	
“I don’t know”	“I’m affected by the others by their enthusiasm and a willingness also to help. “	“It’s quite normal to behave pro-environment ally. So it’s, when you don’t do it, you feel pressure.”	“the social pressure is quite big, I think”	“I don’t feel pressured to do even more”	Affected by the social pressure.	Affected by the social pressure.	Subjective norms	
Middle. It influences how a person behaves towards the environment .	High. It influences how a person behaves towards the environment.	High. It does not affect the adoption of PEB.	Middle. It influences how a person behaves towards the environment .	Middle. It influences how a person behaves towards the environment .	Middle. It influences how a person behaves towards the environment .	Middle. It influences how a person behaves towards the environment .	Economic - Household	Contextual factors
Sociable person.	Sociable person.	In the middle between a sociable and a solitary person.	Sociable person.	Sociable person.	Sociable person.	In the middle between a sociable and a solitary person.	Social	
High level of information about environmental topics.	High level of information about environmental topics.	High level of information about environmental topics.	High level of information about environmental topics.	Middle high level of information about environmental topics.	High level of information about environmental topics.	High level of information about environmental topics.	Cultural	
Female “I don’t think gender matters”	Male “My experience is, is that the subject is more adopted by women	Female “Women [...] adopt our messages way more than men. Definitely. Yes.”	Male No effects on the adoption of PEB.	Female “the importance of the environment . [...] could be higher for women than for men, but	Female “I don’t think it’s something about gender.”	Male No effects on the adoption of PEB.	Gender	Social demographic factors

	than by men”			I'm not sure.”				
52 “Seniority helps”	54 “Yeah [...] I come at an age that it's time to get back”	41 “I think the more older you are, the more you become aware of how is gonna do the future environment ally, I think, but on me it has not effect. Not really.”	31 “when I was 20, or 21, I didn't think about the environment like I do now.”	57 The awareness of the environment has increased throughout the years.	38 Think for people of her generation is difficult to change because they are the generation who “had everything”.	45 “I'm more interested in, in relation to the older generation. The younger also, I think, I have three kids and they, they are not so interested in sustainability.”	Age	
HBO. “doesn't depend on education, I think”	Master's university. “once you enter the university and you start a study, you're already sure or at least should be a little curious about everything”	HBO. “When you are in certain circles when you go study something you have more people influence you.[...] you want to learn more, or you are open to other information”	Bachelor. No effects on the adoption of PEB.	HBO. “I don't think that affected. it is the way that it's more the kind of person you are and the interest you have in the world around you”	HBO. It had an effect on her behaviors because it was also about nature.	High school. “the subject of sustainability and the environment for example, is very abstract. So when people have a lower level of education, yeah, it's difficult for them”	Level of education	

APPENDIX B

Interview guide

Quick setting

Quick personal greeting.

Next, ask about the informed consent.

Introduction of the project

This project is related to the Sustainable Entrepreneurship Project (SEP), which is the thesis of my master. The **research question** is the following: How can an organization encourage employees' Pro-environmental behaviors?

The **purpose** of this project is to add to the literature on PEB and to reduce the gap between theory and practice in the field of sustainable entrepreneurship. In other words, it wants to highlight the areas of intervention for the decision-makers who have to understand how to increase employees' PEB at the workplace.

Explain what Pro-environmental behaviors are:

Pro-environmental behaviors are all those activities, direct or indirect, undertaken by an individual (at her/his workplace in our case), that she/he thinks will improve or help to improve the natural environment.

The **goal of the interview** is to understand the effect and the change on the employees after the implementation of the activities oriented to increase their PEB and what other factors influence the adoption of employees' PEB.

Structure

A) Start with opening questions about the role of the participant in the organization

A.1 What is your role within the organization?

A.2 How long have you been working in Omrin?

B) Questions focused on the purpose of our research: internal factors

The first area is "Education & Awareness".

Omrin offers to employees several training courses with the aim of increasing their education and the awareness of employees in order to increase their PEB.

B.1 *Which training courses did you join?*

- *Where these courses voluntary or mandatory?*

- *Have your behaviors changed after participating in these courses? (Which, How, and Why)*

- *How do you think the effects of the training courses could be improved?*

- *Do you think it would help to have a follow-up of the training courses after a period of time? (How and why)*

- *Do you think that having both theory and practice would help you? (How and why)*

- *Do you think that all the employees in the same department should join the same training courses? (Why)*

- *Do you think that this kind of training course should be voluntary or mandatory? (why)*

Another activity is represented by sharing videos of celebrities testing different sustainable products (such as the Cora ball and reusable diapers). These videos are shared both with a link directly to employees and are available on the information screens inside the structure.

B.2 *What changes have you seen in your behavior after viewing these “Vlogs”?*

B.3 *What activities do you think would be helpful to incentivize Education & Awareness? (ex: newsletter, posters...)*

The second area concerns the kind of **leadership** used in Omrin and related incentives/rewards

B.4 *Does your manager’s behavior (it could be one or more figure) affect your adoption of PEB?*

B.5 *Omrin sends a reward when specific environmental goals are achieved. How does it affect you in the adoption of PEB?*

B.6 *Do you think some kind of incentive will change your adoption of PEB? If yes, which kind? Financial or in-kind?*

A concept related to leadership is the one of “**supervisory support**”. A supervisor is a figure internal to the workplace who stimulates sustainable initiatives and increases employees’

motivation to act pro-environmentally. Moreover, this kind of support represents a means to evaluate and influence followers' behaviors.

B.7 *At the moment Omrin does not have supervisory support. How do you think this figure could affect your adoption of PEB?*

Do you think is needed? (Yes/no Why).

Organizational identification:

B.8 Do you think you identify yourself with the company and are you willing to work towards the organization's goals?

□ Considering that Omrin incorporates sustainability in its business model and that they try to include sustainability in all the department's goals, how does it affect your adoption of PEB?

Co-workers' expectations: the work environment is important because usually, employees don't want to disappoint the expectations of colleagues, moreover the more they feel supported by their colleagues, the more they are willing to adopt PEB.

B.9 *Do you think Omrin tries to create a good environment with co-workers?*

How would you define your relationship with your co-workers? (Ex: trusting, supportive...)

How does it affect your adoption of PEB?

How do Co-workers' expectations affect your adoption of PEB?

How do your Co-workers support the adoption of PEB?

Is there a sort of social value within the workplace environment that enhance the whole department to act more environmentally?

(If not, do you think it could be improved? How? What do you suggest?)

C) Questions focused on the purpose of our research: external factors

Individual factors:

Values

C.1 *Can you run for me in order of importance of values:*

- satisfy needs related to nature and the environment

- respect the wishes of other people

- satisfy your personal pleasures, wishes, and desires
- have money and power

□ explain why

How do you think this way of thinking of yours affects your adoption of PEB?

Goals

C.2 *Can you run for me in order of priority as a goal:*

- a goal appropriate at the regulatory level
- a goal pleasant for yourself
- a profitable goal

□ explain why

How do you think this way of thinking of yours affects your adoption of PEB?

The concept of “**subjective norms**” is linked to the individual decision-making process, and it concerns how a person elaborates the social pressure and acts consequently. In the context of PEB, personal norms reflect the moral obligation to adopt actions towards the environment.

C.3 *How do you think this concept affects your adoption of PEB?*

The following categories of questions are more focused on the personal sphere. If you prefer to avoid answering some specific questions you can refuse without giving a reason.

Contextual factors: Economic, social, cultural factors

C.4 *Do you identify your household as a low-income, middle-income, or high-income one?*

□ How do you think it affects your adoption of PEB?

C.5 *Do you identify yourself as a sociable person or as an introvert/solitary person?*

□ How do you think it affects your adoption of PEB?

C.6 *How would you describe your level of information about current issues about sustainability, climate change, and related issues?*

□ How do you think it affects your adoption of PEB?

Social demographic factors: Gender, age, level of education

C.7 Which gender do you define yourself with? and how do you think it affects your adoption of PEB?

C.8 What is your age and how do you think it affects your adoption of PEB?

C.9 What is your level of education and how do you think it affects your adoption of PEB?

D) End on a positive note:

Any additional information to address?

Would it be okay if we contacted you again for a quick follow-up if any more questions come up?

Sincerely thank the interviewee in the end and remind them about informed consent.

APPENDIX C

Research informed consent

Title of study: Sustainable Entrepreneurship Project.

“Case study: How an organization can encourage pro-environmental behaviors”

Primary researcher:

Elena Iovenitti e-mail: i.e.elena.iovenitti@student.rug.nl

Supervisor:

Arianna Rotulo e-mail: a.rotulo@rug.nl

Description of the research project and its purpose

This purpose of this study is to enrich the existing literature on environmentally friendly behaviors and understand how a company can increase employees’ pro-environmental behaviors. Therefore, the research question is *How can an organization encourage employees’ pro-environmental behaviors?*

Why am I being asked to review this form?

You are being asked to take part in a research study. This form is provided so that you may read and understand the reasons why you might or might not want to participate in the research. Your participation is voluntary.

What is the goal of this interview?

The goal of this interview is to gather information about the organizational and individual factors influencing Pro-environmental behaviors at the workplace. More specifically, the interviews will be focused on the understanding of employees’ perceptions and changes after the implementation of activities towards the environment from the company.

What will happen before the interview?

- You are allowed to withdraw from the study without justification and without negative consequences until three days before the meeting;
- We will review this form before the beginning of the interview;

- You can contact me and my supervisors if you have any additional questions.

What will happen during the interview?

- You will be asked multiple open-ended questions;
- The interview will be recorded;
- You have the right to decline to answer particular questions.

What will happen after the interview?

- The recordings of the interview will be transcribed and analyzed by the researcher;
- This reviewed transcription will be integrated into the final report;
- Quotes from the transcription will be used in the report;
- For confidentiality purposes, you have the right to ask to be anonymized.

Contact Information

If you have questions at any time about this study, you may contact the researcher whose contact information is provided on the first page. If you have questions regarding your rights as a research participant, or if problems arise that you do not feel you can discuss with the Primary Researcher directly, you may contact the supervisor.

Voluntary Participation

Your participation in this study is voluntary. It is up to you to decide whether or not to take part in this study. If you decide to take part in this study, you will be asked to sign this consent form. After you sign the consent form, you are still free to withdraw at any time and without giving a reason. Withdrawing from this study will not affect the relationship you have, if any, with the researcher.

Consent

I have read and understand the provided information and I have had the opportunity to ask questions. I understand that I will be given a copy of this consent form. I understand that my participation is voluntary, and I voluntarily agree to take part in this study.

Participant's name: _____ **Date** _____

Participant's signature _____