



POLITECNICO
MILANO 1863

SCUOLA DI INGEGNERIA INDUSTRIALE
E DELL'INFORMAZIONE



EXECUTIVE SUMMARY OF THE THESIS

Embedding Sustainability in Organizational Culture through Employee Engagement: a Maturity Model

TESI MAGISTRALE IN MANAGEMENT ENGINEERING – INGEGNERIA GESTIONALE

AUTHOR: PIETRO RUSSELLO

ADVISOR: RAFFAELLA CAGLIANO

ACADEMIC YEAR: 2022-2023

1. Introduction

In recent years sustainability has received growing attention from stakeholders [1]. While it is widely acknowledged that sustainability needs to be deeply ingrained within an organization's culture, there is a lack of clarity and consensus on what this entails. Existing corporate actions often focus on specific aspects of sustainability, such as environmental practices or social responsibility, without considering the **holistic integration** of sustainability into the organizational culture [2]. Focusing on the relationship between sustainability and culture, this research seeks to examine the concept of **cultural embeddedness of sustainability**, delivering particular attention to salient themes such as organizational culture and employee engagement.

RQ 1: How can the notion of cultural embeddedness of sustainability be defined and conceptualized?

Moreover, the successful inculcation of a sustainability-oriented culture requires a **robust framework** that outlines the most effective practices for corporate leadership. Consequently, through an analysis of the existing literature this

research strives to construct a comprehensive tool that can guide organizations in these efforts.

RQ 2: Which practices are bound to the implementation of a cultural embeddedness of sustainability within organizations?

Upon an analysis of the findings derived from the literature reviews, further underscoring the importance of employee engagement, this research conducted an empirical study. The objective of this research is to **validate the framework** developed and further **investigate initiatives** and practices that enable organizations to leverage **employee engagement as a lever** to foster a culture of sustainability.

RQ 2_Empirical: Which practices are bound to the implementation of a cultural embeddedness of sustainability within organizations?

The first chapter of this thesis will delve into the concept of cultural embeddedness of sustainability and the corresponding practices essential for its implementation. Through systematic literature reviews, **this study aims to develop a comprehensive framework.**

The second chapter of the thesis is devoted to qualitative research with the objective to **validate**

the literature results and **solidify** the theoretical findings.

2. Systematic literature review

Research methodology

The research initiates with a systematic literature review, delving into the intricate concept of cultural embeddedness concerning sustainability. This initial phase aims to highlight the primary themes and approaches associated with this concept.

Subsequently, the study conducts five nested literature reviews, each of which focuses on the topics that were found in the first review. These nested reviews serve to explore each theme more profoundly, aiming to precisely define and identify the specific practices utilized in fostering a culture of sustainability.

Sample selection

To establish an exhaustive pool of relevant documents, a comprehensive selection was conducted through SCOPUS using a set of selected keywords:

("corporate sustainability" AND "organizational culture") OR "employee engagement" OR "organizational culture".

Articles and reviews within the domains of "Business, Management and Accounting" or "Social Sciences," meeting the criteria of being marked as "final" and composed in English, were exclusively considered.

Given the novelty of the topic, journals were meticulously chosen based on their quality, which was assessed through "Scimago: Scientific Journal Rankings" and the classification provided by the "Associazione Italiana Ingegneri Gestionali." Moreover, a stringent screening process was employed to **exclude predatory journals**, ensuring the integrity and reliability of the sources utilized in this study.

Following the PRISMA methodology, a screening of abstracts and text resulted in a final sample of 45 papers.

The five subsequent nested literature reviews were conducted following the same screening methodology, starting from a set of queries that

connected "corporate sustainability" to a series of terms identified in the previous review (Figure 1).

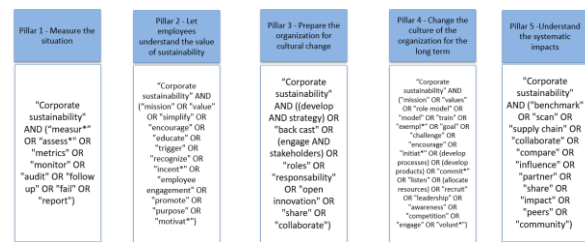


Figure 1 Research Queries nested literature reviews

Removing duplicates, these nested literature reviews resulted in a final sample of 157 papers.

Results

Definition of cultural embeddedness of sustainability

Cultural embeddedness of sustainability within an organization refers to the **extent to which sustainability values and practices are deeply integrated into the company's culture** [3]. To incorporate sustainability into the organization's purpose and behaviours, it is necessary to motivate employees, working on their comprehension of sustainable themes. This is a dynamic process that usually start with an assessment of the AS-IS situation and that requires the company to prepare its processes and knowledge base to this shift. Promoting employee engagement is fundamental to establish long-term changes through the creation of a supportive environment. Furthermore, acknowledging the company's impact and influence on the external environment significantly resonates with employees' commitment.

Cultural Embeddedness of Sustainability model

The definition of cultural embeddedness of sustainability and the themes emerged from the literature have built the foundation of the "Cultural Embeddedness of Sustainability model".

Moreover, recognizing the significance of Kurt Lewin's model in discussions related to organizational culture and change management it has been adopted as an **overarching framework** to enhance the **methodological rigor** of the work and its **comprehensibility**.

Once each identified practice has been meticulously examined and comprehensively

addressed based on the literature, an all-encompassing model was developed (Figure 2). This model encapsulates a **range of practices** that organizations can adopt to **propagate a culture of sustainability**.

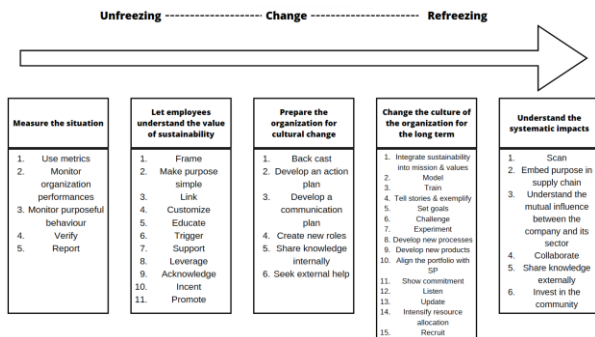


Figure 2 Cultural Embeddedness of Sustainability model.

Cultural Embeddedness of Sustainability through Employee Engagement Maturity model

The study has underscored the **critical role** that **employee engagement** plays regarding cultural embeddedness of sustainability. In fact, employee engagement has been seen in many practices as a crucial lever to actively incorporate sustainability within the corporate culture, thus employees' mindset and behaviours. Therefore, a strategic decision was made to develop an additional tool with specific emphasis on employee engagement (Figure 3).

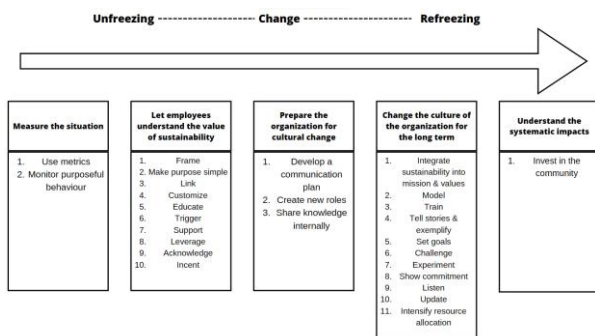


Figure 3 Cultural Embeddedness of Sustainability through Employee Engagement Maturity model

Theoretical and practical implications

This systematic literature review contributes to the literature by introducing a definition of cultural embeddedness of sustainability. Moreover, it identifies and explicitly defines the practices linked

with fostering a culture of sustainability, clarifying their meaning and importance. From a practical standpoint, this research gives practitioners a valuable tool to help them navigate this process systematically, guiding their future endeavours and determining the maturity of their current position.

Limitations

The main limitations in the research encompass the time-bound nature of literature reviews that rely on existing knowledge at the time of the research and potential incompleteness in coverage due to abundance of information connected to the selected keywords. For these reasons, it has been chosen a transparent and robust research methodology.

3. Qualitative research

Building upon the insights of the literature review and synthesized in the Cultural Embeddedness of Sustainability through Employee Engagement Maturity model, this research aims to uncover not only if there is empirical support to the framework but also to potentially discover variations and different insights coming from professionals. This includes identifying which practices are deemed most impactful and understanding the motivation driving their implementation.

Research methodology

Given the exploratory nature of the research, a **case study technique** was considered as the most fitting approach. However, due to the complexity of the topics under investigation, a versatile and flexible tool was also deemed crucial. Consequently, **semi-structured interviews** were adopted. This research integrates inductive and deductive approaches [4]. Indeed, the systematic literature reviews and the model of Cultural Embeddedness of Sustainability through Employee Engagement are the foundation of the qualitative research. Then, to validate and expand the results, an inductive methodology has been applied through "in vivo" coding performed on the interviews' transcripts.

Sample selection

In order to consider companies actively pursuing sustainability initiatives, it has been chosen to draw from a list of 200 companies published by Il Sole 24 Ore in collaboration with Statista. In particular, the list was published in the occasion of the event “Sustainability Leaders 2022”. Out of the 200 companies, contact has been successfully established with 26 of them, for some of them it has been possible to contact more than one employee, leading to total of **36 interviews**. Primarily, interviews were conducted with Sustainable Managers or individuals in similar roles. In cases where such positions were not part of the company’s organizational structure or were unavailable, interviews were conducted with Human Resources representatives.

Data collection and data review process

The primary data source comprises interviews with sustainability professionals. To optimize the benefits of semi-structured interviews, preparation involved a review of each company’s website and annual reports, this eventually allowed to inquire about specific characteristics unique to each organization.

A coding process was conducted to analyse the collected data. This analysis was supported by the previously conducted systematic literature reviews, that helped the process of sense-making of the findings across the five pillars of the Cultural Embeddedness of Sustainability through Employee Engagement Maturity model.

After the data analysis and coding process have been conducted, a data triangulation process was implemented. This process aimed to enhance the reliability of received information and further clarify some insights. In fact, when a respondent highlighted an interesting theme or practice, their company’s sustainable report underwent a scan using a selection of keywords relevant to that particular practice (Figure 4).

USE METRICS	MONITOR PURPOSEFUL BEHAVIORS			
KPIs monitoring metrics	behaviour actions monitoring			
FRAME	LINK	SUPPORT	EDUCATE	TRIGGER
opportunity understand emotional awareness	link individual everyday activities	support encouragement easier employee suggestion	educate inform formation	trigger initiate events disrupt display
SHARE KNOWLEDGE INTERNALLY	DEVELOP A COMMUNICATION PLAN	DEVELOP AN ACTION PLAN	CREATE NEW ROLES	
cross event	communication plan	action strategy plan	role ambassador	
INTEGRATE SUSTAINABILITY INTO MISSION & VALUES	TRAIN	EXPERIMENT	UPDATE	
mission value	train courses formation practice	experiment develop ideas develop solution research	update inform up to date progress news	
MODEL	SHOW COMMITMENT	INTENSIFY RESOURCE ALLOCATION	LISTEN	SET DIRECTION
model example commitment behaviours management	commitment press release communications company publication	allocate resources allocation resource disposal allocate assets	listen opinion feedback ask	vision guide strategic
EMBED PURPOSE IN THE SUPPLY CHAIN	INVEST IN THE COMMUNITY			
supplier value chain external stakeholders	community contribution			

Figure 4 Keywords used

Results

Coding tree

The coding phase led to the generation of a coding tree across the five pillars of the framework (Figure 5Figure 5). This allowed for the categorization of practices based on the specific themes they addressed.

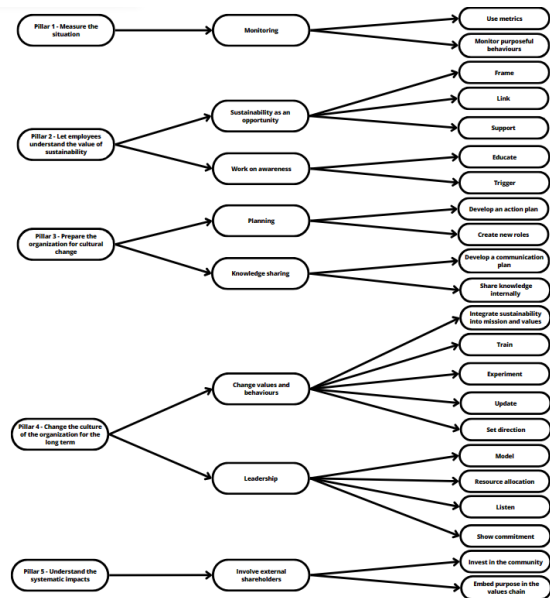


Figure 5 Coding tree

Propositions

Proposition 3.1. *The successful initiation of the process of cultural embeddedness of sustainability relies on the sustainable sentiment held by its employees.*

This proposition posits that organizations with greater employee engagement in sustainability efforts will more effectively implement comprehensive sustainable practices. It can be explored by examining the **link between employee participation in sustainability programs and the scope and effectiveness of these initiatives**, using metrics like qualitative assessments of commitment to sustainability.

Proposition 3.2. *To efficiently embed sustainability within their culture, companies should dedicate a substantial portion of their internal communication efforts to sustainability topics. This way they will observe a measurable increase in employee engagement in sustainability practices.*

This proposition can be explored by **comparing the frequency of sustainability-related communications with the subsequent rise in employee engagement** in sustainability initiatives and the implementation of sustainable work practices, using metrics like adherence to sustainable practices in day-to-day work.

Proposition 3.3. *The level of employees' sustained commitment to integrating sustainability into corporate culture is positively correlated with the implementation of a comprehensive, long-term strategy that includes diverse initiatives and effective communication strategies.*

This proposition can be explored by conducting a study that **tracks the evolution of sustainability initiatives and employee engagement over time**, analysing the implementation of diverse sustainability initiatives, evaluating the effectiveness of communication strategies and assessing changes in employee perceptions through regular surveys.

Proposition 3.4. *The alignment between employees' values and sustainable ones is dependent on a committed leadership able to guide long-lasting changes working on the purpose, fostering cultural embeddedness of sustainability.*

Based on this, organizations with leadership teams who consistently integrate sustainability into their strategic vision and decision-making processes will see a significant increase in the alignment of

employee values with sustainable practices. This proposition could be measured by **observing the growth in the number of sustainability initiatives proposed by employees** as a signal of their commitment and sense of purpose.

Proposition 3.5. *Maintaining cultural embeddedness of sustainability in the long term is dependent on a proactive approach towards the external environment and positive impact on the local community.*

This proposition means that organizations actively engaging with external environmental initiatives and contributing positively to their local communities will experience a sustained increase in internal sustainability practices over time. This hypothesis will be tested by **measuring variables such as the number of external environmental projects participated in**, the frequency of community engagement activities related to sustainability, **and the internal adoption rate of sustainable practices** and policies over a defined period.

Theoretical and practical implications

Through this research the insights emerged from the literature are verified and expanded. A key contribution lies in the delineation of deeper sub-themes in relation to the ones previously identified and at the foundation of the Cultural Embeddedness of Sustainability Model. The validation and refinement of the framework model increase its importance as a valuable tool for practitioners, since it provides a comprehensive framework to actively engage employees in sustainability initiatives.

Limitations

The research exclusively focuses on Italian companies, as determined by the selection criteria outlined by Sole 24 Ore and Statista. This targeted approach introduces a potential limitation in the form of **cultural bias**. This emphasis on a specific geographical context may inadvertently lead to the oversight of practices relevant in other cultural settings, thereby reducing the generalizability of the findings. Consequently, the applicability of the study's outcomes beyond the Italian business landscape may require further verification in international contexts.

4. Conclusions

Through systematic literature reviews and qualitative research, this thesis has **defined the concept of cultural embeddedness of sustainability** and **developed two useful frameworks** to support its implementation.

In the first chapter, a comprehensive overview of the existing literature has led to the identification of five significant themes related to the definition and implementation of cultural embeddedness of sustainability.

This integration extends to the core of the company, infusing sustainability into its purpose, identity, beliefs, and norms. It demands a comprehensive approach across all operational dimensions, incorporating sustainability into decision-making processes, integrating sustainability into training and education programs, fostering employee engagement, and acknowledging the company's external impact.

After understanding and defining the concept of cultural embeddedness of sustainability, it has been possible to develop the **Cultural Embeddedness of Sustainability model**. This model is **developed across the five different pillars** and themes that address the definition of this complex topic, allowing to give a temporal direction to its implementation. First of all, it is important to start from an assessment of the current sustainability situation within the company, then the focus shift to employees' motivations, spreading the importance of sustainability and the necessity of a cultural change. At the same time, the organization should be well prepared and develop the necessary organizational capabilities. In order for this transformation to be effective in the long-term values and beliefs of employees should be redefined to better align with sustainable ones. Lastly, the organization should be cognizant of its external impacts and address them.

The series of nested systematic literature reviews allowed to identify the most effective practices to concretely embed sustainability within organizational culture. Across all of these practices employee engagement is a recurrent theme and lever to incorporate sustainability, consequently the culmination of the first chapter has been the development of the **Cultural Embeddedness of Sustainability through Employee Engagement Maturity model**.

After having identified **employee engagement** as a recurrent theme and a lever to actively incorporate sustainability inside culture, the culmination of the literature research is the development of the Cultural Embeddedness of Sustainability through Employee Engagement Maturity model. **This structured framework serves as a roadmap** for the development of cultural embeddedness of sustainability, helping organizations understanding where they stand and what their next steps will be. As the company invests more in these practices and progresses in its endeavours, the organization matures further in integrating sustainability deeply within its culture.

This model is at the foundation of the qualitative research conducted on 26 Italian companies, aiming to empirically validate the framework while potentially discover differences and insights. Through this research, it has been possible to find **real-world support** to the majority of the practices while comprehending deeper the motivations propelling the implementation of these practices, potentially serving as a source of inspiration for readers. Furthermore, a **comparative analysis between empirical and literature findings** has shed light on the **increase in participatory efforts** undertaken by practitioners, diverging from the more descriptive methodologies prevalent in the literature. This shift underscores an evolving landscape wherein **sustainable leaders are increasingly aware of intrinsic motivators** over the extrinsic ones.

In conclusion, this study provides some possible **future directions** to be taken by researchers to deepen the understanding of cultural embeddedness of sustainability.

First, it calls for a more **thorough examination of the interaction between intrinsic and extrinsic motivators** and how they directly relate to sustainability. Considering the moral and ethical aspects of sustainability practises, there is a strong case to investigate the ways in which these motivators affect and may propel employee engagement. It is critical to examine if intrinsic motivators, such as ethical considerations, alignment with organisational purpose, and personal values have a greater influence on promoting long-term interest and dedication to sustainability. Furthermore, an area for future research lies in **identifying the specific characteristics and attributes connected to**

individuals who effectively propagate sustainability within organizational culture. Delving deeper into the traits, behaviours, and leadership styles that successful sustainability agents exhibit could offer a clearer roadmap for cultivating and nurturing sustainable leadership.

References

- [1] P. Bansal and K. Roth, "Why companies go green: A model of ecological responsiveness," *Academy of Management Journal*, vol. 43, no. 4, pp. 717–736, Aug. 2000, doi: <https://doi.org/10.2307/1556363>.
- [2] M. K. Linnenluecke and A. Griffiths, "Corporate sustainability and organizational culture," *Journal of World Business*, vol. 45, no. 4, pp. 357–366, Oct. 2010, doi: <https://doi.org/10.1016/j.jwb.2009.08.006>.
- [3] André Luiz Romano and L. S. Ferreira, "How to transform sustainability practices into organizational benefits? The role of different cultural characteristics," *Operations Management Research*, vol. 16, no. 1, pp. 192–208, Jul. 2022, doi: <https://doi.org/10.1007/s12063-022-00287-3>.
- [4] J. Fereday and E. Muir-Cochrane, "Demonstrating Rigor Using Thematic Analysis: a Hybrid Approach of Inductive and Deductive Coding and Theme Development," *International Journal of Qualitative Methods*, vol. 5, no. 1, pp. 80–92, Mar. 2006, doi: <https://doi.org/10.1177/160940690600500107>.