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Research article

Operationalizing a corporate sustainability transformation in a fast-moving-consumer goods company

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Abstract
Recent research shows the need to address sustainability from a problem-solving perspective. Taking the case of an international company, which is advanced in that matter, the purpose of this article is to document the key success factors to operationalize a sustainability transformation, as well as a step-by-step process for its deployment. Adopting a qualitative approach, the methodology relies on in-depth interviews with semi-structured questions, collecting the return of experience of 32 employees. The findings highlight three challenges: the implementation of sustainability indicators, organizational silos, and the shift towards a sustainable business model. As a result, it was possible to identify these key success factors: systematize the culture of measuring, introduce a transversal eco-governance, and conceptualize the transformation at scale with a progressive deployment.

Keywords: sustainability; transformation; operationalization; corporate; methodology.

Transformación operativa de la sostenibilidad corporativa en una empresa de bienes de consumo de rápida rotación

Resumen
Varias investigaciones expresan la necesidad de buscar soluciones prácticas para la sustentabilidad. Tomando el caso de una empresa internacional, este artículo propone documentar los factores clave de éxito de una transformación hacia la sostenibilidad y una metodología para su despliegue. Adoptando un enfoque cualitativo, la metodología se basa en el retorno de experiencia de 32 empleados, recolectado a través de entrevistas a profundidad semi estructuradas. Los hallazgos destacan tres desafíos: la implementación de indicadores de sostenibilidad, los silos organizacionales y el cambio hacia un modelo de negocio sustentable. Como resultado, aparecen estos factores clave del éxito: sistematizar la cultura de medir, introducir una eco gobernanza y conceptualizar la transformación a escala con un lanzamiento progresivo.

Palabras clave: sostenibilidad; transformación; operacionalización; empresa; metodología.

Transformação operacional da sustentabilidade corporativa em uma empresa de bens de consumo de rápida rotação

Resumo
Diversas pesquisas expressam a necessidade de buscar soluções práticas para a sustentabilidade. Tomando o caso de uma empresa internacional, este artigo propõe documentar os principais fatores de sucesso de uma transformação em direção à sustentabilidade e uma metodologia para a sua implementação. Adotando uma abordagem qualitativa, a metodologia baseia-se no feedback de experiência de 32 colaboradores, coletado por meio de entrevistas semiestruturadas em profundidade. As conclusões destacam três desafios: a implementação de indicadores de sustentabilidade, silos organizacionais e a mudança para um modelo de negócio sustentável. Como resultado, surgem estes fatores-chave de sucesso: sistematizar a cultura de medição, introduzir a governança ambiental e conceptualizar a transformação em escala com um lançamento progressivo.

Palavras-chave: sustentabilidade; transformação; operacionalização; empresa; metodologia.

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1. Introduction

Over the past years, multinational companies have focused on adapting to several changes in technology, economy, or markets (Rosenberg & Mosca, 2011). In the last decade and particularly over the past two years, sustainability has also gained a lot of importance in the transformation agenda of multinational companies (Appelbaum et al., 2016).

The evolution of legislation towards stricter regulation both internationally and nationally is one of the main factors explaining this phenomenon. As an example, we can mention the case of the European Union, where the European Commission adopted the European Climate Law in July 2021, making climate-neutrality mandatory by 2050 for all European economies and societies (European Commission, 2022).

As supranational laws become applicable to all European countries, they must translate it into their national legislative apparatus. In the case of France, the law against climate change was enacted to support the European law (Macron et al., 2021).

This institutionalization of sustainability constraints towards private companies is a key step to putting them in motion. Indeed, as per Pinheiro et al., (2022), the level of companies engagement and transparency on environmental and social matters reflect how country governments address them. An example of concrete commitment is the Carbon Disclosure Project: a voluntary approach applicable to both public and private sectors to publicize the measure of environmental impacts and remediation actions to minimize them (Oktay et al., 2021).

In parallel, the political instability due to COVID-19 restrictions (McLaughlin, 2022), the war in Ukraine or Chinese tensions within the international landscape, also impact global businesses by putting high pressure on energy and raw material availability, supply chain, and costs. This uncertainty is another trigger to rethink the way multinational companies operate their business (Brueckner et al., 2022).

Also, social actors such as non-governmental organizations and civil society became more powerful and influence even the biggest actors in a market. They provide individuals with the capacity to influence collective opinions and behaviors thanks to the power of social media. Indeed, one organization or one individual can now easily damage the image of major companies for not putting enough emphasis on respecting ethics, values or simply the things that people care about (Boulianne, 2022).

For this reason, there is a stream of research dedicated to studying organizational reputation. It is the system of beliefs we have about an organization or person, which generates expectations about their behaviors. In other words, reputation is an evaluation of an organization (Deephouse & Carter, 2005) in terms of desirability, quality, esteem, and favorability. Therefore, many studies have focused on the importance of building and maintaining a good reputation for organizations. Moreover, they consider it an intangible asset (Fombrun & Shanley, 1990).

A recent example of organizational reputation put at risk, is the case of Total Energy, a French oil company accused of selling indirectly the kerosene used by the Russian army to conduct the war in Ukraine despite the French government position against the war. Total Energy was then forced to sell all its share related to Russian gas activity (Grynszpan & Bouissou, 2022).

Regarding human resources, employees themselves show more concern about sustainability, thus, it becomes a key differentiator to attract and retain talents, especially young and high qualified profiles (Chaudhary, 2018).

Finally, natural disasters are becoming more frequent, even big companies are more exposed to the risk of events like fires, drought, flood, or biodiversity loss directly impacting their production, manufacturing, or supply chain (Fang et al., 2019).

In that context, sustainability transformation, that is, the evolution of an organization towards a target model where the activity of the present does not compromise the capacity of future generations to satisfy their needs, is now reaching the highest level of executive committees.

Indeed, if currently digital transformation was the priority, to adapt to all major technologic changes and disruptions (Appelbaum et al., 2016), we can foresee that sustainability transformation should take over in most multinational companies in the coming years.

However, organizations that started the transformation process toward sustainable operations face difficulties to scope, execute, and finalize this process. Indeed, there is no one-fits-all strategy, as it will depend on the industry and where its main Co2 footprint buckets are generated. For example, in the wine and spirits industry, the priority would be reducing glass consumption due to the carbon emitted during its production (Pernod Ricard Company, 2021). While the main challenge for dairy production would be to focus on substituting cow milk by vegetable milk, maintaining an equal level of protein intake and production yield, to significantly reduce carbon emissions (Engelberts et al., 2021).

This one-by-one approach is generally supported by major consulting companies, which are experts in strategy design but not in operationalization (Old, 1995), nor in sustainability. In the best-case scenario, they would be associated with start-up companies, experts in sustainability, but lacking background on both transformation strategy and operationalization. This situation generates slowness, trial and errors, and, on some occasions, transformation failures and missed momentum. Operationalization is key to succeed in sustainability transformation.

It has been documented that sustainability transformation should be embraced as any change initiative, as it aims at switching culture and relationships with all company stakeholders (Stoughton & Ludema, 2012a). As such, specific attention must be paid to not failing, as

seventy percent of all change initiatives do because of human factors (Burnes & Jackson, 2011).

However, it is also noticed that sustainability transformation is *"a brand-new area of research that needs further attention"* (Appelbaum et al., 2016, p.138).

The purpose of this article is to explore the key success factors for operationalizing a sustainability transformation and a deployment methodology. To achieve this, first of all, we present a brief literature review on sustainability transformation to list and assess existing knowledge and theories; and then, use in depth-interviews to evaluate the case of a sustainability transformation in a fast-moving-consumer-goods company (FMCG), which is among the worldwide leaders in its industry.

2. Literature review

As a first step, we carried out a search for the concept of sustainability transformation in the Business Source Complete (EBSCOhost) search engine. Considering the emerging phase of the topic in all fields, the time period was not restricted, and all databases were selected. A filter was applied to select only peer-reviewed academic papers, choosing English as key language. The thesaurus key words were restricted to corporate social responsibility, organizational change, corporate sustainability, change management, corporate culture, green business, management, organizational behavior, and international business enterprises. From this configuration, 349 results were retrieved from 1995 to 2022, out of which the first 100 were examined to select pertinent articles.

From this brief review, we will define sustainability transformation as *"a fundamental long-term development of society toward enhanced human well-being built on environmental accountability and protection, as recently agreed on in the Sustainable Development Goals of the United Nations and addressed in the Future Earth Initiative and the EU's Grand Challenges"* (Daedlow et al., 2016).

Few information is available on how to address sustainability transformations from a multinational company perspective, and when available, it remains highly conceptual and theoretical.

On the vision and strategy roll-out, the article by Cherrier et al. (2012) focuses on the need of getting the right sponsorship within the highest level of the management team to successfully lead sustainability initiatives. For that purpose, the article identifies six typical profiles —three in favor and three against— usually present at this level of leadership, and underlines the fact that managers need to change their personal mindset first and then understand corporate goals and organizational purpose to succeed. Thus, the need to build a corporate identity where sustainability becomes a key differentiator is a pre-requisite. However, as per Stoughton & Ludema (2012b), the involvement of senior management is mainly required for sponsorship purposes, but sustainability transformation can be operationalized by middle management.

Hence, considering the importance of sustainability philosophy in the company strategy definition, Dominici & Palumbo (2013) bring up the viable systems approach (VSA). It explains that decision makers need to converge stakeholders' expectations by implementing a value creation process that considers the role of business from a social perspective. Sustainability philosophy should be a basis to define the strategy and to implement a pertinent governance model. Finally, key performance indicators (KPIs) on efficiency, effectiveness, and sustainability would enable the business to quantify the pertinence of the actions taken.

While this is a first approach to the steps to be taken to reach sustainability from an organizational perspective —aligning key stakeholders, build a sustainable strategy supported by pertinent governance instances, and monitor KPIs— it is still very generic as all these steps are usually in place for any kind of corporate transformation.

Adopting a wider view, Ryan et al. (2012) demonstrate the value of adding external stakeholders to the in-house company sustainability perspective by creating a network of relationships and interactions with non-profit organizations, public institutions, civil society, and others.

More concretely but not turned to sustainability, Old (1995) proposes a methodology to operate change management at the three levels of an organization: system (strategy, culture, structure, rewards, and information technology), observed practices, and underlying patterns. It is based on five dimensions, namely: 1) partner with the leader; 2) contextualize the change; 3) navigate the critical path; 4) bring wholeness into design process; and 5) build dynamic processes and pathways. For Old, the reconfiguration of the system towards the target will only occur if an action plan is in place and if pushback is well managed to enable the emergence of new patterns.

We noticed a need to deep-dive into the specificities of operationalizing a sustainability transformation from a corporate perspective, as the literature lacks references on the topic.

3. Methodology

Given the early stage of research on corporate sustainability transformations, and the lack of literature addressing its operationalization properly, the most appropriate approach to explore that matter was to adopt a qualitative methodology, emphasizing the challenges, conditions for success, and steps to be taken in a corporate environment.

To do so, in-depth interviews with semi-structured questions were conducted to explore professionals' insights in an international FMCG company. The company was selected purposefully, since it has operated several transformations in the past, such as a digital acceleration program initiated five years ago and that is still in progress, at the same time, it has run an important program around sustainability, thus allowing some employees to become knowledgeable and able to share their return of experience. The

contact with the company was made through an employee found in the professional social network LinkedIn.

The sample was selected intentionally by identifying the main stakeholders on transformation and sustainability within the organization. In total, thirty-two people were interviewed to cover the following functional areas: human resources, manufacturing, supply chain, finance, marketing, procurement, technology, and sustainability. The characterization of participants is detailed in Table 1, based on responsibility area, position, years working at the company, sustainability expertise, number of direct reports (internal resources only), and gender.

The interviews took place between August 26th, 2022, and September 7th, 2022, with an average duration of one hour. Each interview was recorded by OneNote Office360 software by the interviewer. As the company headquarters are in France, twenty-four interviews took place in French and eight interviews were conducted in English for non-French speakers.

The interview format was semi-structured questions aiming to understand the journey to current status, remaining challenges, and key success factors for the sustainability transformation conducted in the company. The instrument is shown in the annex.

As an introduction, interviewees were shared the definition of a sustainable development: *"a development that meets the needs of the present without compromising the ability of future generations to meet their own needs"* (Brundtland, 1987, p.39); and informed of the objectives of the discussion.

Table 1. List of interviewees and key characteristics.

Number	Responsibility area	Position	Years in company	Sustainability expertise	Direct reports	Gender
1	Finance	Country Manager	10	Low	5	Female
2	Human Resources	Country Manager	1	Low	1	Female
3	Human Resources	Country Manager	16	Low	1	Female
4	Human Resources	Country manager	1	Low	0	Female
5	Human Resources	Group Manager	6	Low	0	Female
6	IT Operations	Country Manager	2	Low	7	Female
7	IT Operations	Group Expert	8	Low	3	Male
8	IT Operations	Group Manager	23	High	4	Male
9	IT Operations	Group Manager	5	Medium	0	Male
10	IT Operations	Group Vice President	21	Low	6	Male
11	IT Solutions	Group Manager	7	Low	1	Female
12	IT Solutions	Country Manager	20	Low	0	Male
13	IT Solutions	Country Manager	7	Medium	2	Male
14	IT Solutions	Group Director	10	Medium	10	Male
15	IT Solutions	Group Manager	11	Medium	5	Male
16	IT Solutions	Group Manager	3	Medium	0	Female
17	Marketing	Country director	13	Low	8	Female
18	Operations	Country Vice President	20	Medium	8	Male
19	Operations, supply chain and manufacturing	Group Vice President	15	Medium	9	Male
20	Procurement	Group director	3	Medium	10	Female
21	Procurement	Group Expert	3	High	0	Male
22	Procurement	Group Expert	4	Medium	0	Male
23	Procurement	Group Expert	1	Low	0	Female
24	Procurement Center of Excellence	Group Director	23	Medium	3	Male
25	Supplier carbon Reduction	Group Head of	2	High	1	Male
26	Quality & Sustainable Performance	Country manager	20	High	8	Female
27	Supply Chain	Country Expert	33	High	0	Male
28	Sustainability	Country Manager	6	High	1	Female
29	Sustainability	Country Director	15	High	0	Female
30	Sustainable agriculture	Group Head of	3	High	2	Female
31	Sustainable Performance	Country Director	19	High	4	Female
32	Sustainable Performance	Group Head of	2	High	2	Female

Source: own elaboration

After that, a verbatim analysis was conducted, first, manually searching for convergent trends among answers as well as differences. In a second stage, data was processed using the ATLAS.ti software (version 23.1.1.0, 2023), looking for a more detailed explanation of the results.

4. Findings

As an introduction to the findings of this study, it is important to note that it relies on a qualitative exploratory methodology, and as such, the results cannot be generalized to other companies nor context. However, it is an opportunity to start the discussion on how to operate a wide-company-scale sustainability transformation in a complex organization where the value chain, ownership, processes, and tools are multiple and fragmented. The purpose of this study is then to open a debate on the conditions to efficiently operate a corporate sustainability transformation at scale.

It is important to specify the sustainability scopes defined by the organization.

The sustainability transformation conducted in the company is defined around three dimensions: lands, circular making, and people. These dimensions imply looking after all aspects of the products' lifecycle, from raw material sourcing to product end of life.

As for preserving lands, as all products come from nature, it is a priority to secure the yield and quality of the fields today and in the future. In that context, environmental standards certifications are in place, and several biodiversity protection and regenerative agriculture programs were launched. The next step to preserve lands would be to systematize data collection to enable better progress monitoring and future scale-up.

About circular making, the objective is to minimize waste at every step of a product lifecycle, from production to end of life, through specific actions to preserve water and promote eco-packaging, for example. As a circular concept, it focuses on reducing, reusing, and recycling raw material as much as possible, with a continuous effort made on research and innovation. There may be a challenge in some cases related to the legislation; at this stage it doesn't allow them to switch from glass to carton to reduce product carbon footprint. Therefore, the next step in circular making would be to enable bulk transportation towards consumers location, enabling a local bottling and deposit systems.

About people, the company cares mainly about the people working for the company and their ecosystem. It consists in ensuring that both employees and suppliers promote inclusiveness, diversity, equality, and education. As operations are managed worldwide, the next step would be to apply the same level of human rights and well-being reliability to the partners involving several layers of outsourced employees.

At this stage, the sustainability transformation started several years ago and is headed by a team reporting directly to the CEO. From their feedback and other business stakeholders involved, it seems like several operationalization challenges remain to be tackled. For instance, the implementation of sustainability indicators, organizational silos, and the shift towards a sustainable business model. From there, key factors to succeed may be to systematize a culture of measuring, introduce a transversal eco-governance, and conceptualize the transformation at scale with a progressive expansion. This last point is also documented as a step-by-step process, integrating the lessons learnt by the interviewees during the journey.

4.1 Challenges and key success factors of the sustainability transformation journey

The first challenge reported by all sustainability experts is the collection, consolidation, reconciliation, and analysis of sustainability indicators. Currently, regulation requires to quantify accurately and exhaustively the carbon emitted by the company activities, from raw material sourcing, procurement, manufacturing, transportation, sales, marketing to products end of life. More is to come regarding environment, social matters, human rights, corruption and diversity to comply with the *Corporate Sustainability Reporting Directive 2022* (EU), emitted by the European Union (OJ, 14 December 2022).

Today, no technical solution is leveraged at company level to automatize data management from end-to-end. That situation is explained by the number of affiliates involved —more than eighty— reposing on as many IT systems. A technical complexity that drives to a situation where carbon information is gathered through a door-to-door method in all affiliates and with all suppliers, thus generating errors and being highly time consuming.

An example of the difficulties reported is that raw data on the quantity of materials purchased is frequently reported with incongruencies; thus, the head office must recalculate the information by projecting other affiliates' information. As a consequence, external auditors also have to evaluate the reliability of the information provided on group carbon emissions.

Consequently, interviewees note that too much effort is put on collecting, consolidating, and retrieving past emissions information, rather than on building optimization scenarios to improve decision-making for the future and forecasting.

Indeed, to succeed in reducing its environmental impacts, the company must be able to compare extremely complex scenarios, activating different levers at both local and company scales. However, to that end, it should be able to rely on accurate past events analysis to highlight the measures that yielded the most significant results, versus the ones that did not reach the expected output or required too much effort but yielded low value. This, on top of integrating projections on the impacts of climate change on agriculture, water or any other risk, to better accommodate scenarios.

However, such a level of complexity is hardly managed today and still faces barriers for scaling-up. About this situation, interviewees express the need to implement a higher data granularity, with a common taxonomy at group level, to get more reliable data and be able of drill-down into the environmental company impacts by country. This, because as pointed out by an interviewee: "moving the same weight of goods in one or five trailers from one point to another has different carbon footprints". A case currently not addressed, showing that the level of details analyzed is not sufficient to identify potential optimization levers.

Thus, the former implies to build and systematize the culture of measuring, simulating, implementing, and iterating to feed a common and shared knowledge base.

The second challenge regarding organizational silos is that some people are particularly knowledgeable on sustainability and have implemented successful actions or adopted best practices at their department or affiliates level. However, it usually remains at their team level and is not scaled to the extent it could be.

As an example, an affiliate has implemented a solution to reduce the use of fertilizers thanks to a robot equipped with artificial intelligence. It is autonomous in applying the minimal quantity of product required on crops, provides valuable information on the health of plants, and recommends actions to the operators: watering, cutting, etc. But now, the technology is not shared to other producers within the company despite several countries could be interested in it and capitalizing on the internal knowledge built to enrich their own practices.

This is because the actual governance on sustainability is fragmented among three departments at group level: corporate responsibility, sustainable operations, and human resources, multiplied by the number of affiliates, as each business unit has a local organization replicating the global one (i.e., local corporate responsibility, local sustainable operations, local human resources).

In addition, internal organizational bias hinders the collaboration, as reporting lines are not from local-to-global (i.e., local corporate responsibility reporting to global corporate responsibility), but often from local-to-local (i.e., local corporate responsibility reporting to local CEO) thus mixing divergent priorities and agendas to deliver group results. This is also reflected by the fact that stakeholders may not be able to take additional workload related to sustainability projects, often considered as a nice-to-have to work on best effort, rather than a company priority.

Finally, to better anticipate industry evolutions and incorporate them into investment plans to get prepared for the future, the company should involve its ecosystem stakeholders formally. It could consist of consulting community members, experts, and researchers on topics such as farming, glass production, manufacturing, and supply-chain on a regular basis to identify structural investments and assure business continuity in the long run. An example could be to work with fossil energy specialists to explore the risks related to a reduced availability by 2100 and mitigate them on the full company value chain.

As a consequence, the focus should be on introducing transversal eco-governance to formalize sharing between roles, functions, countries, and ecosystem stakeholders.

On the third challenge, interviewees point out the difficulty shifting towards a sustainable business model.

Indeed, it implies to revisit business processes by integrating different scenarios of global warming for 2100, being the most optimistic, +1.5 °C; the most likely to happen, +2.4 °C; and worst-case scenario, +4 °C.

Based on the above, and associated with other non-renewable resources, the definition of a sustainable business model should look at different elements of the company value chain to be most impacted.

For instance, agriculture, a model that should shift towards a regenerative approach. This goal requires the company to accompany farmers with expertise, knowledge transfer, and economic resources over many years to guarantee results. Indeed, these will depend on the capacity to overcome farmers' resistance to change, helping to reduce environmental transition economic costs, and risks perceived. It also means to support them further to get certified, especially in countries where sustainability is not yet a legal requirement.

Another key element is glass supply. The company must mobilize producers to operate their own sustainability transformation. Indeed, glass producers are often reluctant to provide environmental data, while they represent the majority of carbon emissions of the company. The high demand for this material poses a challenge; thus, suppliers feel more comfortable with not meeting client expectations. Given the context, it could be pertinent to align information requirements with other clients to speak with one voice or make it a pre-requisite to participate in a call for proposals.

Finally, much is to be done internally to level-up maturity on sustainability among heterogeneous affiliates.

This starts with the innovation process. They must be able to prioritize new product ideas compatible with a sustainable business model at group level. That is, most likely locally sourced, bottled, and distributed, as well as eligible to eco-conception, a condition to be verified by leveraging an advanced lifecycle analysis comparing ingredients and packaging options.

At operations level, it consists of designing factories able to produce multiple goods on a single production line to optimize agility on seasonal products, avoid under-use or obsolescence of a trend. On the up-stream transport, it relies on selecting transporters with the

highest probability to arrive to destination through the shorter distance with the most recent boat and cleaner oil (while this information is so far known only at arrival of the goods). On the down-stream transport, it is about optimizing routes to customers by proposing, for example, products from one single warehouse instead of offering an inventory dispatched from different places. Furthermore, it is about preparing for reverse logistics, a priority and highly complex battleground.

> *To conclude, it implies to conceptualize the sustainability transformation at scale while proceeding with a start-small-and-expand approach to build a sustainable business model on solid and common foundations.*

4.2 On the methodology to operationalize the sustainability transformation

The interviewees have brough valuable returns of experience on how to operate a sustainability transformation, detailing the company journey step-by-step and sharing their analysis about it. As a result, a methodology based on the process deployed and enriched with lessons learnt is proposed below.

The first step is to build a coherent **strategy**. It means that the **vision**, the **mandate**, and the scope of the initiative must be clearly defined, formally documented, and duly communicated to relevant stakeholders.

In terms of sustainability, such strategy must address both the most important environmental footprint categories of the company and, contrary to what was first intended, the smallest ones, to enable the adhesion and engagement of every employee. It must also express the right level of ambition: specific, measurable, achievable, relevant, and time bound (Bjerke und Renger, 2017).

In the case of the company studied, as a FMCG company producing beverages, glass represents the most important carbon emission factor, followed by raw material sourcing due to the agriculture carbon emissions, then transportation, and finally manufacturing.

Here the priority is to reduce glass consumption either by preferring other materials, lightening bottles weigh, or implementing local deposit systems. Additionally, green rather than uncolored glass also shows a significant potential in terms of environmental footprint reduction by enabling a higher percentage of recycled material; a benefit also made possible by switching to a larger format or even adopting one single bottle format for all brands.

However, such decisions are usually made with the marketing department, which pays more attention to brands positioning, differentiation factors, and sales than to sustainability. *A pushback in that sense was shared by the interviewees from the Sustainability team*.

Consequently, as a second step, the **organization** must be settled in a way that sustainability becomes the most impactful matter, getting the highest level of sponsorship. The sustainability team should obviously report directly to the CEO and have a leader acting as the CEO's right hand, in charge of operationalizing the sustainability transformation at the head of all other initiatives, which is actually still not the case. To do so, new roles and responsibilities must be created to drive the vision and monitor the roadmap delivery, such as sustainability officers in all front and back-office functions, positions that are missing up to now.

To avoid silos in priorities management and action plans, another key topic is eco-**governance**. Indeed, setting-up the right governance bodies, with the right attendees, at the right frequency, and with the right content is key to articulate all functions, hierarchical levels, affiliates and external ecosystem stakeholders, and create a transversal approach that does reach sustainability. A pending point at this stage that was pointed out by interviewees.

For an international company, it means setting cross-functions monthly meetings at global level, with sustainability department as an owner, and defining the content, which must be oriented to strategic decisions-making and arbitrations. Again, all functions must be involved: Operations, HR, Finance, Legal, Marketing, Sales, IT, external experts, community members or researchers.

In addition, each function should cascade the strategy to their regional and local teams, leveraging existing instances and bringing sustainability as a recurring point to their agenda.

Finally, regional and local teams must also discuss across functions on a regular basis, either in existing or dedicated instances, to monitor field progress and implement action plans. Such transversal and international articulation would also be easier if employees adopt the same ways of working and processes, designed to make people speak the same language and act in one single direction, currently a work in progress in the company.

For sustainability, it means to adopt a common taxonomy on how to name concepts to enable a reliable data gathering and consolidation process for sustainability. Standard operating processes can be enriched to formalize sustainability requirements and gates. These ways of working should include, as an entry point, the reference to the sustainability service catalogue, including:

1) The environmental footprint calculation, a baseline and periodical refresh.
2) A simulator to compare and identify the best sustainability strategies based on a benchmark wider than the company, enriched by past actions analysis, and considering the full picture of each action (carbon, water, biodiversity) to avoid preferring a solution that is damageable for another nonrenewable resource.
3) Guidelines, methods, and tools to support the operationalization in all functions and affiliates on selecting certified partners, producing eco-scored products, return on environment calculation, budget conversion in tons of Co2, roadmap management, etc.

4) Trainings and awareness sessions to upskill the organization either generic and applicable to all employees or very specific for certain roles (procurement, manufacturing, supply-chain, IT, digital marketing).
5) Key performance indicators homogenize raw data to be collected (concepts, definition, frequency) and enable a coherent consolidation and results tracking at company level.

Indeed, including all the services in the catalogue should contribute to avoiding silos and duplication of efforts —either human or financial— on similar topics.

Finally, to support the human aspect of the transformation, change management is key to make people willing and ready to change. Thanks to it, every stakeholder should understand why the transformation is occurring, what it consists of, and how they will be contributing to it.

To foster adoption and reduce push back, a good practice during the design phase is to co-build the ambitions of the sustainability transformation with key stakeholders (at least involving sustainability, operations, and HR global management) and align it with top executives (direct reports of the CEO). An approach currently being deployed for the definition of the next steps of the sustainability transformation.

Another recommendation is to think on a scale: start small and then expand. That is, the transformation set-up must be designed to be applicable to all use cases, in all functions and affiliates, but start with a proof of concept in a reduced perimeter to test, learn, and optimize the model in terms of goal, ambitions, roles, organization, ways of working, and upskilling before launching.

After that, a middle-management team should oversee the sustainability transformation execution, while top executives should be the sponsors of the initiative and lead by the example. They must display the highest level of environment sobriety and inclusiveness in their team to impulse the rest of the collaborators to replicate their attitude. This is still an improvement and is currently pushed bottom-up by company sustainability experts.

During the consolidation phase, it is usual to rely on a network of champions or ambassadors to cascade the knowledge, ideally settled in every region and hierarchical levels and looking for transversality and synergies. To that end, two networks are emerging in IT and marketing.

Finally, sustainability should become a formal objective at individual and collective levels. It must be included in the individual development plans through sustainability continuous education and become a condition for profit sharing benefits for all employees.

5. Results and Discussion

Recently, it has been acknowledged that sustainability should be more results oriented and contribute to building knowledge on how to transform to reach it (Dorninger et al., 2020). In that context, this present article relies on the most recent and empirical knowledge of the employees of a FMCG company to identify the critical factors to successfully transform an organization in the long term and turn words into facts.

Several challenges were identified around the environmental footprint calculation, organizational silos, and sustainable business model shift. For each one, a key success factor was shared.

First, a common process must be adopted, and a knowledge base documented to bring a global view of the company's position on sustainability. It means to systematize the culture of measuring, simulating, deciding, implementing, and iterating to be able to identify key improvement areas, prioritize the most significant environmental footprint optimization levers, and track results. It must also integrate multiple smaller action plans as proofs of concept toward sustainability, encompassing topics such as water management, biodiversity or inclusiveness to really transform the whole company ecosystem.

Second, a transversal eco-governance should emerge and integrate all business functions: sustainability, operations, human resources, finance, marketing, sales, legal, and IT to impulse the company transformation in one-single direction and avoid silos between functions, as well as to involve all company layers to avoid disconnection between global and local teams. Another important point is to enrich the eco-governance bodies with the participation of stakeholders coming from outside of the company, either community representatives (farmers, glass suppliers), industry experts, or scientists and researchers.

Third and last, it is key to create a team to conceptualize the sustainability transformation set-up at scale, with a progressive expansion in its operationalization. This means to start small and then expand, keeping the right complexity, i.e., manage local specificities that make sense due to local legal or operational constraints, but removing bad complexity, i.e., all barriers to sustainability implementation at scale. This team should report independently and directly to the CEO.

Therefore, each challenge could deserve a specific study to deep dive into how to resolve them from the administration research perspective, and an analysis could be done on remediation actions implemented over time to evaluate their effectiveness.

Regarding the sustainability operationalization, the main steps reported are common to a usual transformation program: writing the vision that the transformation will enable to achieve, clarifying the mandate within the organization; delimiting the scope in terms of geography and functions involved; defining the strategy of levers to be activated in a three to five years horizon; designing the organization structure that will support its implementation; establishing a governance that will pilot the roadmap and make decisions; constituting a service catalogue specialized

on sustainability problems; building key performance indicators to monitor progress; and accompanying people mindset and practices transition toward the vision through a change management plan.

Still, sustainability is a wide topic and there are many perspectives to address it. Here, the studied sample is made of employees from one single company, which is too limited to extrapolate results. It would be suitable to expand the research to other industries or types of actors, like consultancy or start-up, to compare sustainability operationalization methodologies.

This article aims at bringing new elements to understand corporate sustainability transformation; however, it is still part of an exploratory phase, which means that a lot remains to be looked-at, documented, investigated, and further discussed.

Conflict of interest

The authors declare no conflict of interest.

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Annexes

Table A1. Interview Guide.

General information
• Interview date
• Attendee name
• Interviewer name
• Brief presentation of the interviewee team/entity
• Number of people in the team
• Main positions and activities in the team
Questions about the Sustainability Journey within the Company
1. How would you describe the current maturity of the organization regarding sustainability?
2. What were the steps taken to reach that level?
3. Did you contribute to it?
4. If yes, how? What would you do differently today?
5. In your opinion, what should be the next steps in this journey?
Current Practices regarding Sustainability
6. What are the most challenging situations regarding sustainability?
7. What things work well? Why?
8. In your opinion, what are the levers that can or should be used to reduce the environmental footprint to achieve the company's reduction objectives?
9. Are you aligned with the company's environmental objectives?
Other
10. Do you have any other comments on sustainability topics to share with us?

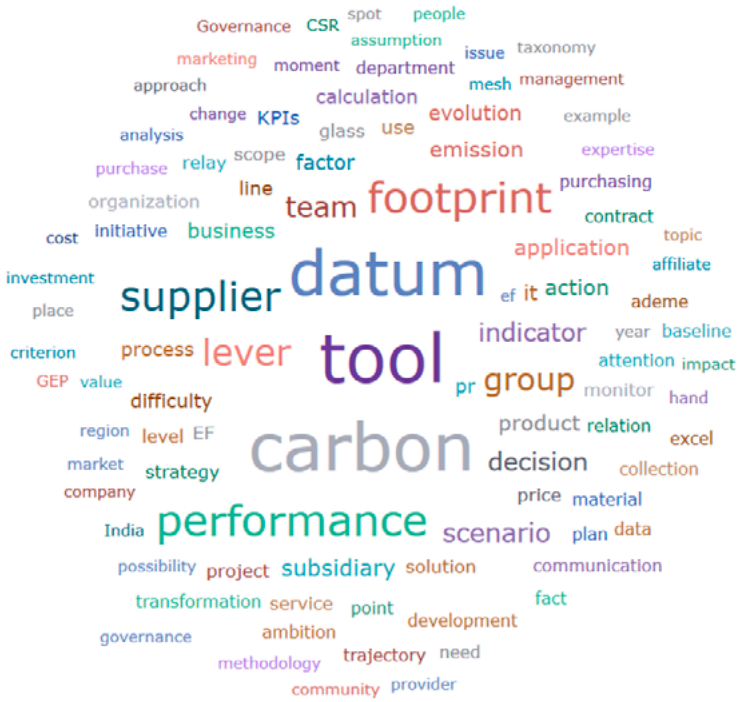

Figure A1. Automatic words cloud based on interviews.
Note. This figure is based on the verbatim record of the interviews that have been uploaded to the tool. It shows the key words mentioned by the interviewees. The three main words are related to the indicator challenge: datum refers to all data related issues; carbon to the fact it is a legal obligation to report annually on the quantity emitted by the company, while it is actually hardly fulfilled; and tool to the lack of solution to support that process. These words are also the consequence of a missing transversal governance on environmental topics. Action, group, initiative, practice, scope, or levers are more related to the switch of the organization to a sustainable business model.
Source: own elaboration.

Figure A2. Encoded words cloud based on interviews.
Note. This figure is based on coding the verbatim records of the interview parameters for this research. It shows the key concepts mentioned by the interviewees.
Source: own elaboration.

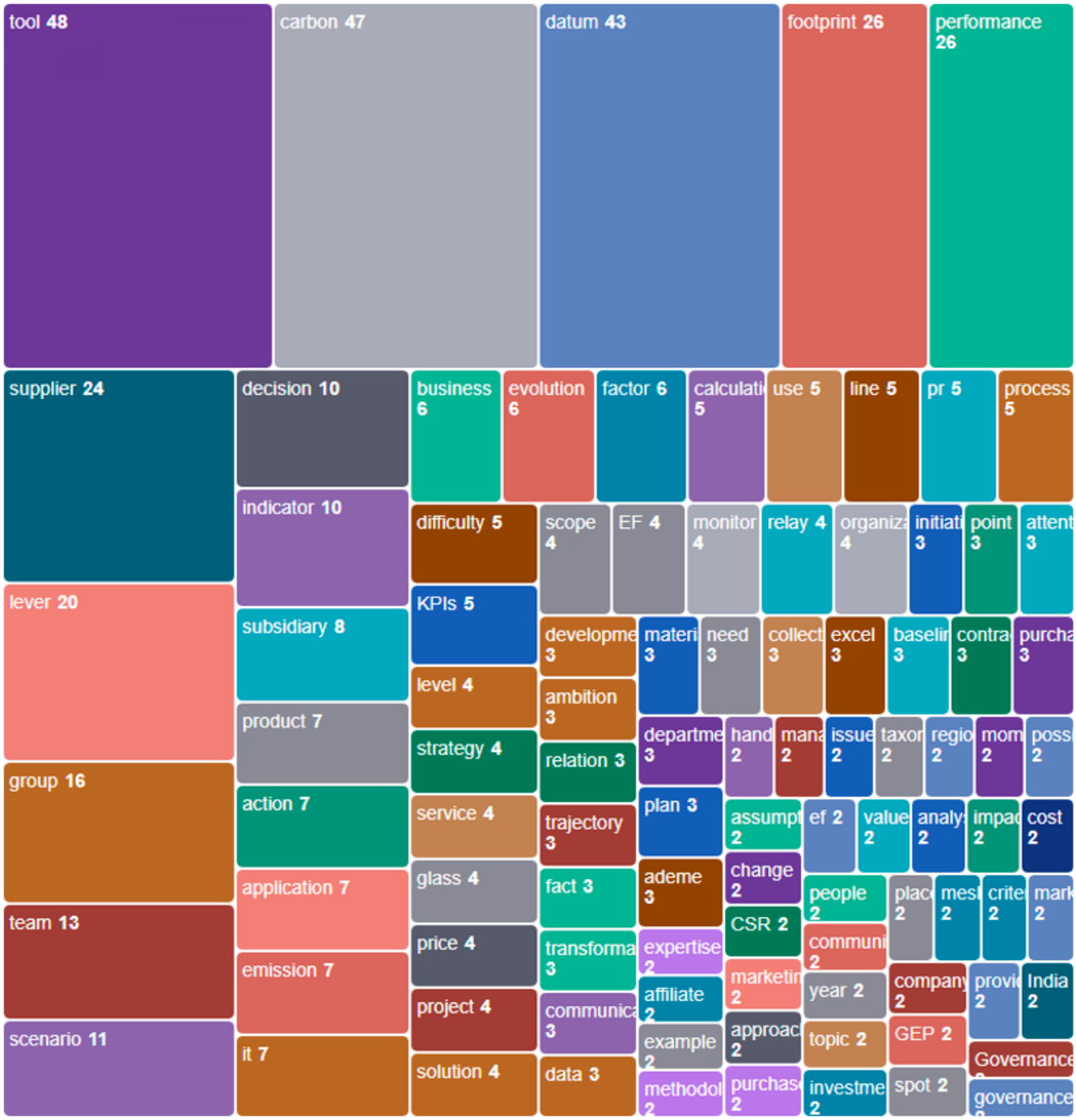

Figure A3. Automatic proportional concept map.
Note. This figure is based on the verbatim records of the interviews that have been uploaded to the tool. It shows the concepts detected automatically by the software according to the interviewees' mentions.
Source: own elaboration.

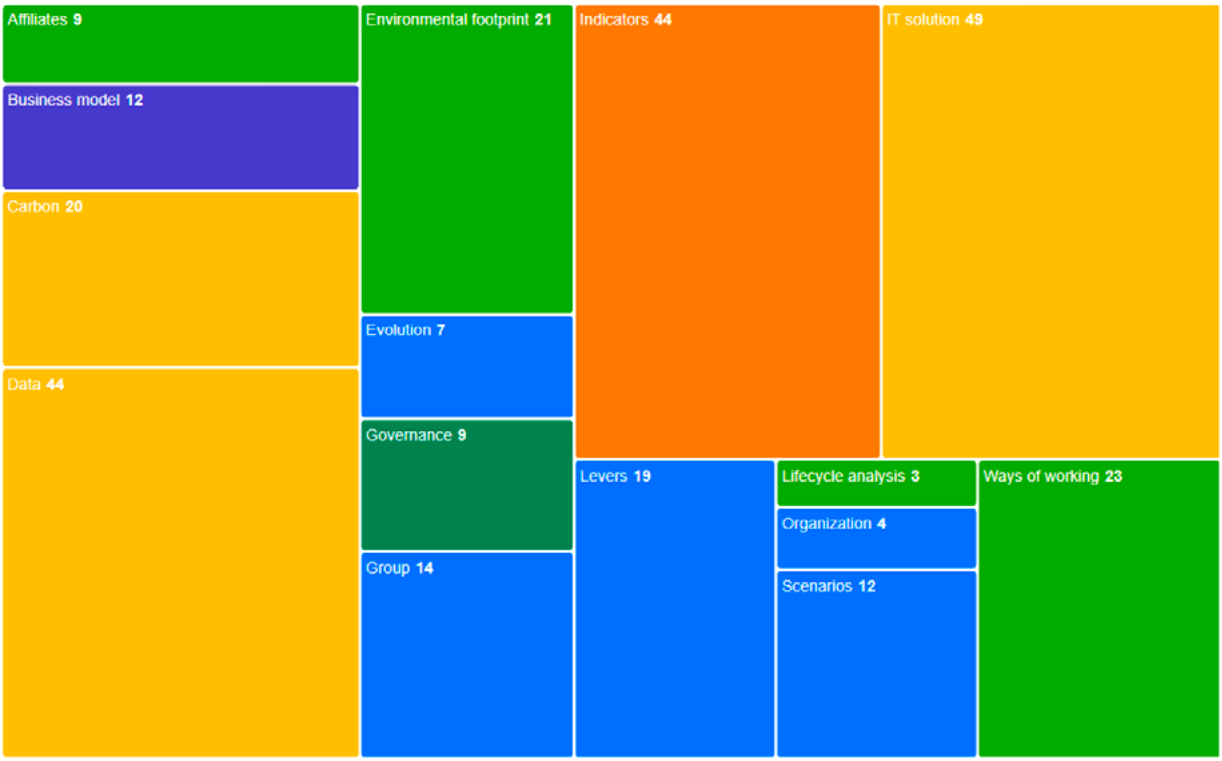

Figure A4. Encoded proportional concept map.
Note. This figure is based on the coding of the interviews carried out for qualitative analysis. It shows the encoded concepts mentioned by the interviewees.
Source: own elaboration.

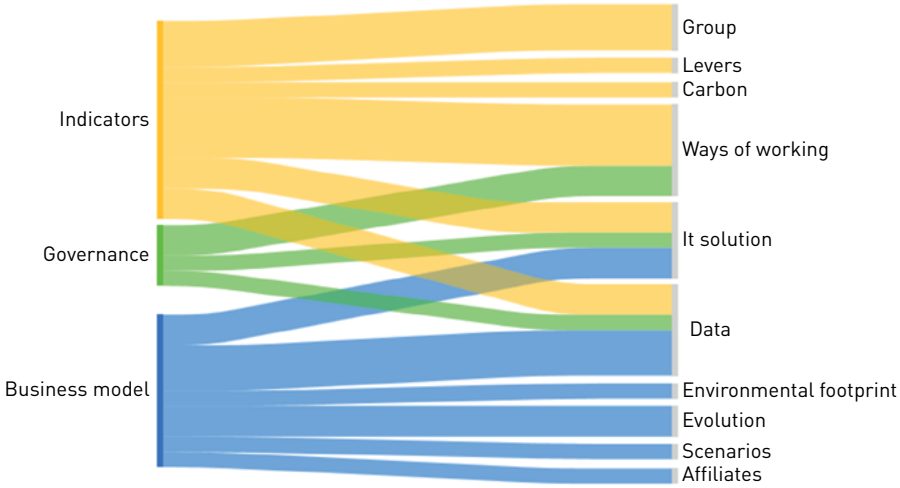

Figure A5. Sankey key concepts relationship analysis.
Note. This figure is based on the coding of the interviews carried out for qualitative analysis. Based on encoded concepts, it shows the relationship between main challenges (environmental indicators implementation, organizational silos, and switch to a sustainable business model) and key success factors (culture of measuring, eco-governance, at scale transformation design). It shows that the implementation of indicators requires a group approach, showing activated levers, reporting carbon data correctly, relying on common ways of working, and IT solutions. Governance is mainly related to ways of working, coordinated data management, and adequate IT solutions. Business model switch also relies on having the right solution and data to find it, creating scenarios on affiliates environmental footprints, and their evolution.
Source: own elaboration.