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Published in:
Journal of Urban Ecology

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Publication date:
2022

Document Version
Publisher's PDF, also known as Version of record

[Link to publication from Aalborg University](#)

Citation for published version (APA):

Olesen, S. N. R., Sørensen, A. R. K., & Huulgaard, R. D. (2022). Incorporating the Sustainable Development Goals in Small to Medium-sized Enterprises. *Journal of Urban Ecology*, 8(1), Article 6782244. <http://10.1093/jue/juac022>

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Incorporating the sustainable development goals in small- to medium-sized enterprises

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Submitted: 16 February 2021; Received (in revised form): 10 August 2022. Accepted: 23 September 2022

Abstract

Multiple international stakeholders emphasise the important role of small- to medium-sized enterprises (SMEs) in achieving the sustainable development goals (SDG). SMEs make up more than 99% of companies in Europe, and holds a potential to promote social and environmental responsibility. However, there is no 'one size fits all' when it comes to the incorporation of the SDGs. In this study, we identify five main approaches based on a literature review including (i) rainbow washing, (ii) supporting 'business as usual', (iii) adding new initiatives/strategies, (iv) philanthropy and (v) strategic use in core businesses. These approaches are categorised based on their contribution to achieving the SDGs as well as the benefits for the company in question. We performed a case study of six SMEs in Northern Jutland, Denmark, which revealed, that most SMEs work with the SDGs in less proactive and ambitious ways, leaving a gap between the role they have been assigned and their current practices. To investigate this gap further, our case study combined with the literature review has helped identify factors influencing the SMEs choice of approach. These include both negative (uncertainty about the SDGs prospective role, lack of resources and low demand for SDG compliance) and positive (taking responsibility, social license to operate, communication and inspiration) factors. The negative influencing factors are particularly interlinked which is caused by inadequacy in resources, knowledge and qualifications. This indicates that SMEs cannot single-handedly implement the SDGs in a way that enables achievement of the 2030 Agenda, thus external guidance is needed.

Key words: sustainable development goals, small- and medium-sized enterprises, approaches for incorporating the SDG, stakeholder engagement

Introduction

The 2030 Agenda for sustainable development was adopted by all United Nations Member States in September 2015. The 2030 Agenda focuses on the most urgent environmental, economic and social issues which must be met by 2030. The core of the 2030 Agenda is the 17 sustainable development goals (SDGs) that stress the importance of action from all countries (United Nations 2020). One of the important keywords in the 2030 Agenda is partnerships. Both governments, international organisations, civil society and the private sector need to engage in the 2030 Agenda to achieve all 17 SDGs (Sachs et al. 2019).

Since the emergence of the SDGs, the role of the private sector has been emphasised as pivotal, due to its opportunities

to act as a source of investments, a driver for technological development and generate innovation (World Business Council for Sustainable Development 2020). Companies of all types and sizes play an important role and their commitment is crucial (United Nations 2015).

In 2015, enterprises with fewer than 250 employees represented 99% of all companies in the EU, leaving them in the category of SMEs (Papadopoulos et al. 2018). The same distribution is seen in more recent studies in Denmark. Out of all companies in Denmark, SMEs represent 99.7% (The Danish Society of Engineers 2019). The percentage of SMEs in comparison to larger companies implies that their engagement is pivotal for achieving the 2030 Agenda in Denmark. UNDP in Denmark and The

Danish Chamber of Commerce are two of many actors pointing towards the SMEs and their importance, because of their unutilised potential to engage and work with social and environmental issues (The Danish Chamber of Commerce 2020b; United Nations Development Programme 2020).

According to Pedersen (2018), companies that actively choose to comply with the 2030 Agenda may experience advantages because the SMEs make a good business case. The potentials related to the incorporation of the SDGs in companies go beyond pushing sustainable development in society. Companies can obtain business opportunities, gain access to new markets, experience economical savings or even increase their revenue and improve their image to gain a social license to operate (OECD 2016; The Danish Chamber of Commerce 2020b). Despite all these potential opportunities, research shows that there are challenges connected to incorporating the SDGs in a company, especially in SMEs. The 2030 Agenda is quite comprehensive and complex by nature and requires a wide range of competencies that go beyond what many SMEs are able to grasp (The Danish Ethical Trading Initiative 2019; The Danish Chamber of Commerce 2020a). To look further into the consequences of these challenges, this research aims to investigate the different approaches that companies can and do use when incorporating the SDGs.

An analysis of Danish companies' status on working with corporate social responsibility (CSR) and SDGs by the Danish Chamber of Commerce in 2019 shows that fewer SMEs have knowledge about and incorporate the SDGs in their company compared to large companies (The Danish Chamber of Commerce 2019a). The reason behind this low usage of the SDGs in SMEs lies in the company prerequisites. A big part of these prerequisites is directly linked to the size and number of employees, such as the lack of knowledge and resources to help the company focus on environmental management (Mac 1999). However, there are some positive characteristics of SMEs related to their efforts and potential for working with sustainability. These include direct communication lines (Sloan, Klingenberg, and Rider 2013), and a good execution ability and agility (The Danish Chamber of Commerce 2019a).

The organisational culture in SMEs is characterised by an informal structure and the primary focus is related to day-to-day activities and thereby a lack of strategic, long-term focus (Mac 1999). These characteristics and prerequisites under which SMEs operate, challenge the approach possible for them to operate effectively since the complexity of the 2030 Agenda and the SDGs require additional resources and strategic focus. This indicates a gap between the role the SMEs have been assigned in regard to achieving the SDGs and the approaches necessary to fulfil that role.

The purpose of this study is to investigate, from a local perspective, how SMEs can fulfil their pivotal role in the achievement of the SDGs, by identifying the approaches they can take towards incorporating the SDGs as well as both positive and negative factors influencing their choice of approach. The first section explains the methodology applied, the second section the five approaches identified, the third section focuses on the positive and negative factors influencing the SME's choice of approach and the last section discusses the importance of external guidance and concluding remarks.

Methodology

To identify the approaches for how companies can work with the SDGs, a systematic literature review and several interviews

with experts have been conducted. The literature review as well as a case study and interviews with six SMEs located in Northern Jutland, Denmark, have been used to identify positive and negative factors that influence the case companies choice of approach. The research is both abductive and explorative and applies a qualitative approach (Creswell 2014).

Literature review

Since research on the incorporation of SDGs in companies is a relatively new and growing field of study, we found it necessary to find a common ground for the incorporation of the SDGs in companies and categorise the different approaches. The categorisation of the different approaches and identification of some of the positive and negative factors are based on a systematic literature review focusing on the corporate endorsement of the SDGs, especially in SMEs.

The primary literature reviewed is peer-reviewed literature but due to the novelty of this research area, some grey literature has been included to expand the basis of categorisation of approaches and identification of factors that influence SMEs' choice of approach. The literature review was framed by the following keywords: 'Sustainable Development Goals', 'SDGs', 'business', 'company', 'role', 'benefits', 'challenges', 'Small- to medium-sized enterprises' and 'SME' which was used in various search strings on AAU Primo (Aalborg University Library) and Google Scholar. Twenty papers were identified, and 12 were used in the analysis, based on the relevance of the abstract.

Case study

Working with the SDGs in companies is a broad phenomenon and depends on the specific context. Since companies vary in size, practice and focus, it is important to analyse companies individually to fully understand their prerequisites. To allow a detailed inquiry of this real-life context, a case study has been carried out. The case study includes six SMEs geographically located in Northern Jutland in Denmark. The six companies are chosen by information-oriented selection thus they were expected to know about sustainability and the SDGs (Flyvbjerg 2006). This is done based on their membership of *Netværk for Bæredygtig Erhvervsudvikling NordDanmark (NBE)*, which is a Danish network group for companies wishing to improve their environmental performance. Based on their membership in NBE, it can be assumed that the companies to some extent work with and have knowledge about sustainability. Furthermore, the six cases are all manufacturing companies, to narrow the scope and establish some common ground for the companies.

Interviews

To gain knowledge on if/how the six case companies work with the SDGs and the positive and negative factors that influence this, six companies were interviewed at least one time, and in some cases several times. We interviewed two business developers, two directors, a head of development and a product manager. All interviews were semi-structured, and two different interview guides were developed based on whether they worked with the SDGs or not. Furthermore, we interviewed five external stakeholders that were identified by the case companies to play an important role in how the companies work with the SDGs. A semi-structured approach was used to gain knowledge on the role of external stakeholders and how they currently work to help SMEs work with the SDGs. The following external stakeholders were interviewed based on their expert knowledge:

- Project developers from municipalities engaging with the SDGs
- SME consultant at NBE
- Employees from two different industry associations
- Associate professor at Aalborg University working with sustainability

Pattern-matching the empirical data

To narrow down and specify the positive and negative factors that influence the case companies' approach to the SDGs, the data gathered through the interviews were pattern-matched with keywords and terminology identified in the literature review (Yin 2009). The qualitative data collected through the interviews with the six SMEs were thus gathered into overall categories related to specific keywords when overlaps occurred. For example, the specific wording of 'social licence to operate' did not occur in the interviews, but it was described in other words by different informants and was then grouped into one factor.

Approaches for incorporating the SDGs in SMEs

There are many different ways in which companies can incorporate the SDGs. Depending on the individual company's aim of introducing the SDGs, they will experience different outcomes. This section identifies five different approaches for companies to work with the SDGs identified through the existing literature. These five approaches have been characterised and ranked from 1 to 5. Five being the most intensive incorporation of the SDGs resulting in more advantages for the company and a greater contribution to the achievement of the 2030 Agenda. The five approaches are:

1. Rainbow washing
2. Supporting business as usual
3. Adding new initiatives/strategies
4. Philanthropy
5. Strategic use in core business

The purpose of developing this categorisation is to give the companies an understanding of how it is possible for them to incorporate the SDGs or in case a company has already introduced the SDGs in their company, this categorisation makes it possible for them to identify which approach they are using. The categorisation will enable the companies to gain a better understanding of the resources used and the benefits of the specific approach. Furthermore, this allows benchmarking between companies and enables companies to figure out if they are behind or ahead of their competitors. This can be used as motivation for companies to start incorporating the SDGs or apply a more ambitious approach to incorporate the SDGs. The categorisation can also be used as a framework for communication, both internal and external. The hierarchy of the five approaches makes it easier for employees and other relevant stakeholders, such as investors, to grasp. It can also be used as a framework for companies when setting environmental goals. In the following sections, the five approaches will be described (see Table 1).

Rainbow washing

Greenwashing is the term used for organisations trying to make their product or service seem more sustainable than it is (Delmas and Burbano 2011). This can be done through specific wording or the use of colours that imply to the customer that

Table 1: Five approaches businesses can adopt to incorporate SDGs

Approach	Characteristics
Rainbow washing	Using the 2030 Agenda or specific SDGs to communicate being sustainable without changing 'business as usual'. Only focus on where the company has a positive contribution, neglecting the coherence of the 2030 Agenda (Cherry picking).
Supporting business as usual	Adjust the SDGs to fit 'business as usual'. Using the SDGs as a communication/branding tool and a common language without documenting the effort.
Adding new initiatives/strategies	Improvement or adjusting 'business as usual', actual changes based on the SDGs. Using the SDGs as a source of inspiration for new initiatives
Philanthropy	Partially and segmented integration of SDGs. Using the 2030 Agenda as a framework to direct philanthropic actions. Activities do not necessarily change business as usual but are a positive add-on.
Strategic use in core business	Strategic and long-term actions, with qualitative targets to monitor the effort and progress. Changes in the company mindset and business model, moving away from business as usual.

the given product is sustainable, even though this is not the case (CSR.dk 2019). The same tendency has occurred with the use of SDGs in companies, under the terminology; Rainbow Washing. Rainbow washing is the use of specific SDGs or the 2030 Agenda as a whole for communicative purposes, using the rainbow wheel, without actually contributing to achieving the SDGs (Nieuwenkamp 2017; Visser 2018).

This approach is often taken by companies to meet the growing demand by consumers for sustainable and environmentally friendly products or services. However, it collides with a sustainable agenda because it misleads the consumers and results in them making unsustainable choices (CSR.dk 2019). In close relation to the new term, Rainbow Washing is another recent term; cherry picking. Cherry picking implies organisations that choose to focus only on the SDGs in which the company has a positive contribution and neglects to focus on the rest of the SDGs where the company might have a negative contribution, which is also misleading (Nieuwenkamp 2017). Critics urge companies to avoid cherry-picking because it undermines the importance of the 2030 Agenda as a coherent agenda (Nieuwenkamp 2017). As such cherry picking differs from rainbow washing, but since the characteristics of both terms are that they have little to no benefits for the company and no positive, possibly even a negative impact on the achievement of the SDGs, they are grouped in this approach.

Supporting 'business as usual'

In this approach, the companies have a selective way of choosing which SDGs to work with, striving to find the SDGs that match the company's business as usual. A company using this approach does not do anything new to achieve the SDGs but merely uses the SDGs to communicate what they are already doing and how that is sustainable (Walker, Pekmezovic, and Walker 2019: 238–242). This approach is primarily used for Public Relations (PR), which is also why it is more advantages than rainbow washing. Typically, companies use this approach

to incorporate the SDGs in a rather superficial way, without setting specific targets or documenting their process (Walker, Pekmezovic, and Walker 2019: 238–242). This approach requires a minimum of resources which is why it is commonly used by companies to select their SDGs. Surveys conducted by the two Danish organisations *Akademiet for de Tekniske Videnskaber* (2019) and *Lederne* (2019) establish that more than 50% of the companies examined have chosen to work with the SDGs due to a correlation between their current actions and the 2030 Agenda. Even though the supportive use of the SDGs results in communicative advantages for the company, it doesn't contribute to the achievement of the SDGs because the company continues their 'business as usual' using the SDG framework, and therefore doesn't need to make any changes to achieve the 2030 Agenda.

Adding new initiatives/strategies

The third approach for companies to incorporate the SDGs is a more proactive approach striving to make improvements in the environmental performance of the company by using the SDGs as a framework and source of inspiration. They still carry out their business as usual but now the company has made sustainable changes in addition to their business as usual. In this approach, the company is adapting and adjusting according to the 2030 Agenda, which can be done by including the SDGs in new strategies or visions (*Akademiet for de Tekniske Videnskaber* 2019). It can also be done through additions or optimisations of daily routines and practices to reduce negative environmental impacts (Raith and Siebold 2018). This approach results in the incorporation of the SDGs in a specific and separate department or strategy of the company, such as a CSR strategy, communication strategy, the production department or the top management. As a result, the SDGs are not utilised throughout the entire organisation and no major changes in the business model nor organisational changes occur. Statistics carried out by *The Danish Chamber of Commerce* (2019a) show that only 9% of the examined companies working with the SDGs have embedded the SDGs in the entire organisation, leaving the rest of the companies to implement the SDGs in a segmented manner. The low percentage can be a reflection of the high amount of resources required to include the SDGs in a strategy or department. The time and resources spent pay off when the company eliminates the uncertainty about their commitment to the SDGs, by making this visible in strategies or visions. The changes or additions related to the SDGs also make it possible for the company to not only attain economic value but also shared value, and the company contributes to the achievement of the 2030 Agenda (Abdelkafi and Täuscher 2016; Walker, Pekmezovic, and Walker 2019).

Philanthropy

The use of the SDGs in a philanthropic matter can also be seen as an addition to 'business as usual'. An example of this could be a company donating money to charity, investing in a forested area or contributing in other ways by volunteering time or knowledge valuable to others, so-called social investments (Ellis 2014). These are all activities taking place outside the four walls of the company. For such philanthropic activities, the SDGs can be used as a guideline to help narrow down and focus on the most urgent challenges in today's society (Raith and Siebold 2018). According to Schönherr and Martinuzzi (2019), this approach is the most visual way for a company to show that they

take action in sustainable development. The downside of the approach lies in the fact that philanthropy is an add-on. The activities are rarely related to the core business of the company or they might even be outsourced to other stakeholders, leaving the company to continue its business as usual and gain little insight into the possibility of becoming a more sustainable company (Schönherr and Martinuzzi 2019). In some ways, philanthropy can be seen as a feel-good or add-on aspect that does not necessarily benefit the company directly, but it can also be seen as a way for the company to create shared value (Ellis 2014). Depending on the specific philanthropic activity, this approach can have a big impact on achieving the 2030 Agenda, if the company focuses on one or even a few of the SDGs, and it usually requires more resources, especially economic but also knowledge and work hours. Even though the company might not benefit directly and economically from this approach, philanthropy does imply some indirect benefits such as PR, goodwill amongst employees and the local community as well as a social license to operate, which can open the gateway to new markets and business potentials (Ellis 2014; Dybvad and Lebech 2018).

Strategic use in core business

A company incorporating the SDGs in their strategy or initiatives as described above, does not necessarily imply that the company is working strategically with and towards the 2030 Agenda. To implement a strategic approach, the SDGs have to be intertwined throughout the entire organisation and incorporated into long-term business models and strategies, which ultimately requires a change of mindset (Pedersen 2018). The benefits of the strategic approach besides creating shared value, is that it allows the company to increase their economic value, as an example due to the diversification of production, which results in more than just economic savings (CSR.dk 2016; Schönherr and Martinuzzi 2019). This approach is about changing the business model to be more sustainable, using the SDGs as a framework for doing so, resulting in abandoning business as usual. Incorporating the SDGs in the core business requires a transformative take on the current strategies, standards, procedures, practices etc. allowing the 2030 Agenda to be part of the entire organisation contrary to the other approaches previously described (OECD 2016). This approach also differs because it requires businesses to set specific quantifiable targets based on the SDGs and follow up on them (Pedersen 2018). This approach requires the most resources but also ensures the most benefits. Using the SDGs strategically can result in more interest from investors and other relevant partners or stakeholders. The company obtains legitimacy and reliability due to the specific actions, targets and documentation. Besides the multiple benefits for the company, this approach has the biggest impact on achieving and contributing to the 2030 Agenda, due to the change from 'business as usual' to new, more sustainable business models (OECD 2016).

Categorisation of the five approaches businesses can adopt to incorporate sustainable development goals

We have categorised the five approaches businesses can adopt to incorporate SDGs in Fig. 1 according to the potential benefits and advantages for the given company (x-axis) as well as the societal benefits through contribution to the achievement of the SDGs (y-axis). The further out on both axes in Fig. 1, the more intensive and strategic the use of the SDGs, indicating that the

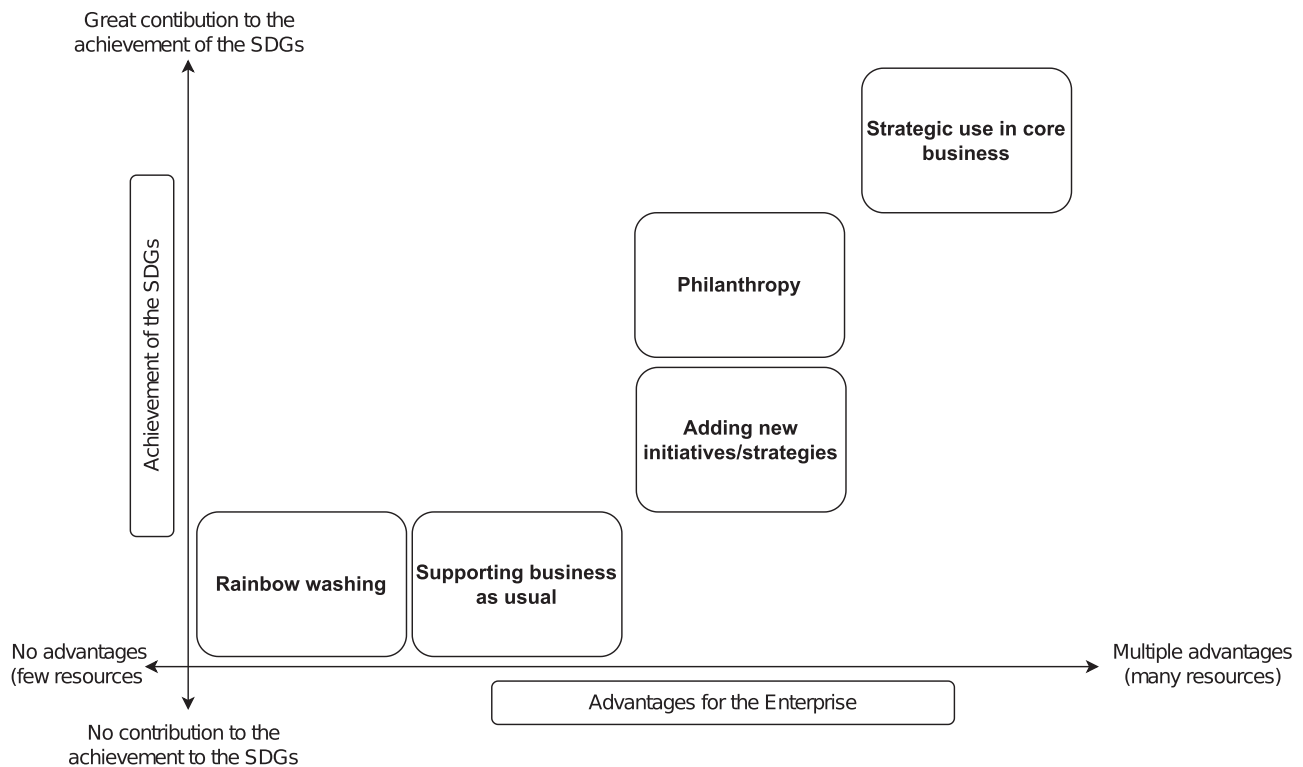


Figure 1: Categorisation of the five different approaches for incorporating the SDGs

contribution to the 2030 Agenda is largest at Approach 5, which also ensures the most extensive benefits to the company. Furthermore, Fig. 1 indicates that the number of resources necessary increases with the intensiveness. It is important to note that this categorisation is a simplified version of a more complex reality. This means that a company might not necessarily work with just one specific approach but might work across different approaches or shift between these depending on the given activity. Furthermore, the ranking of these approaches will depend on their use in a specific company. As an example, in some cases, companies working with a philanthropic approach might contribute less to the achievement of the 2030 Agenda than companies implementing the SDGs through new initiatives and strategies, depending entirely on the nature of the given company and initiatives.

The factors influencing the incorporation of SDGs in SMEs

To gain further knowledge on the SMEs practices regarding the SDGs, a case study was conducted to identify the positive factors that have led to the respective companies' choice of approach and the negative factors that are hampering the companies' incentive to use and incorporate the SDGs. These factors influence the decision-making and thereby the approach that companies take when incorporating the SDGs.

The SMEs and their approaches

To determine which approach the SMEs use for incorporating the SDGs or the underlying reasons for not doing so, several interviews have been conducted with directors and/or business developers in the companies. Out of the six case companies, only four are using the SDGs in their organisation, the last two

case companies have chosen not to incorporate the SDGs (see Table 2). These two companies are still found relevant for the case study as they add valuable insights into why some companies actively choose not to work with the SDGs, despite being aware of their existence.

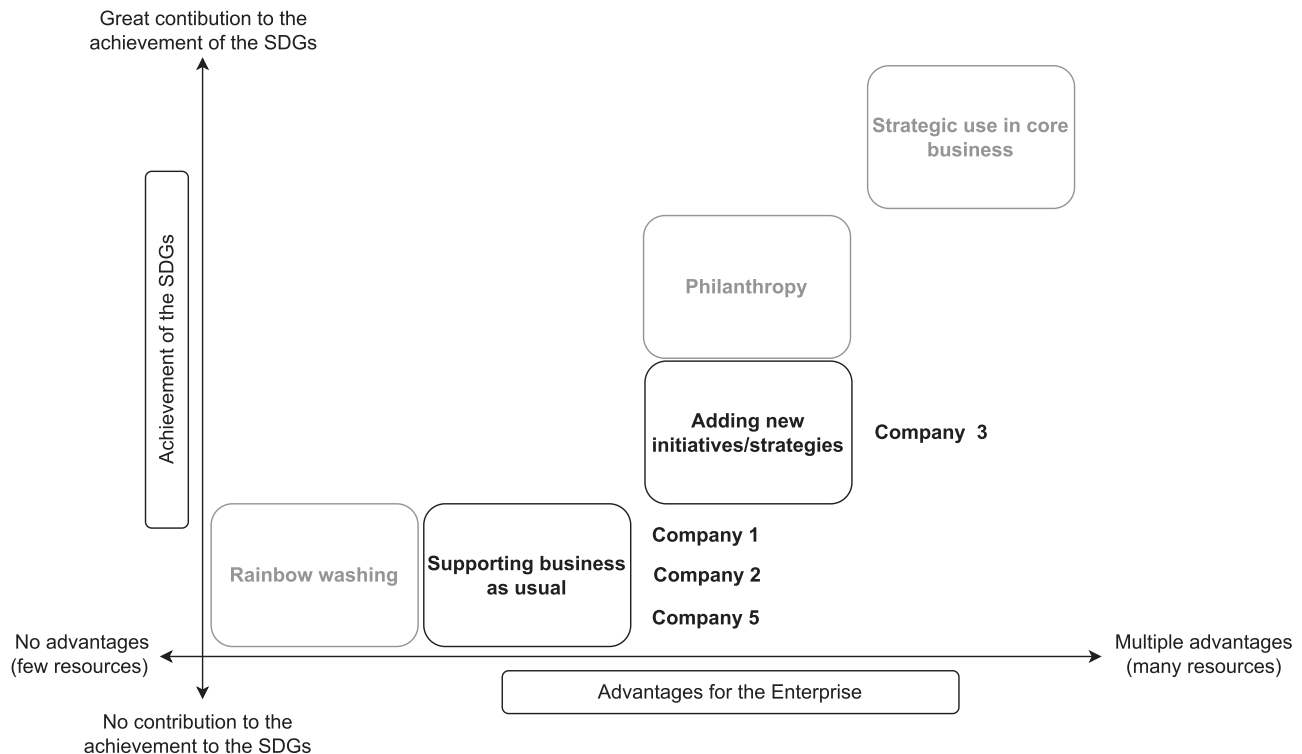
Four of the six companies in the survey used SDG 12, where to SDG 8 was used by two companies. This can to some extent be explained by the interlinked nature of several other SDGs but also because they are highly relevant for manufacturing companies. This is also shown by the national tendencies and status in a report by The Danish Chamber of Commerce that focuses on the use of the SDGs in companies (The Danish Chamber of Commerce 2019a). Our survey results also indicate that the number of employees influences the way companies adopt SDGs. Nationally there is a correlation between the number of employees and the number of SDGs, that the companies have chosen (The Danish Chamber of Commerce 2019a). The two largest companies in this case study, Company 1 and Company 3, are the only two companies working with more than one of the SDGs.

Besides investigating which SDGs, the case companies work with, it is investigated how they work with these SDGs, to determine which of the five approaches for SDG incorporation they use. Figure 2 illustrates the case companies' approach to incorporating the SDGs in accordance with the five categorised approaches.

Three of the four companies in the case study that have chosen to incorporate the SDGs (Company 1, Company 2 and Company 5) use the Approach *Supporting business as usual*. And only one of the companies, Company 3, use the slightly more proactive Approach *Adding new initiatives/strategies*. As illustrated in Fig. 2, this implies that most of the companies do not contribute significantly to the achievement of the 2030 Agenda, because they continue their business as usual and thereby do not bring us any further in reaching the 17 SDGs. Company 3 is the only

Table 2: Overview of the six companies including number of employees and the incorporated SDGs

Company	Number of employees	Established	Industry	SDGs
Company 1	55	1972	Plastic recycling	SDG 8, 12 and 17
Company 2	2	1989	Production of plastic products	SDG 12
Company 3	140	1988	Waste treatment	SDG 1,4, 8, 9, 11, 12, 15 and 17
Company 4	5	2016	Production of lifestyle products	Does not use the SDGs
Company 5	5	2017	Production of feed	SDG 12
Company 6	3	2018	Production of clothes	Does not use the SDGs

**Figure 2:** Overview of the case companies' chosen approaches for incorporating the SDGs

company that has an impact on achieving the agenda because they have started new initiatives inspired by the SDGs. This indicates a challenge since the SMEs in this research apply the less strategic and proactive approaches to the SDGs, which is in contrast to the fact that these companies are chosen because they are some of the SMEs in Northern Jutland, that is the furthest in regards to sustainability, due to their membership of NBE.

Factors that influence the SMEs and their use of the SDGs

To gain an understanding of why these SMEs are taking the approaches illustrated in Fig. 2, the factors influencing their choice have been identified mainly from the interviews and then grouped according to the pattern-matching with key words and terminology identified in the literature review (Yin 2009). Table 3 includes the positive and negative factors and a description of what each factor entails. Table 3 includes a column showing how many and which companies have mentioned a specific factor, in order to identify the biggest challenges that SMEs face when working with the SDGs.

Communication and interaction is the most important positive factor in this case study, influencing the companies' willingness to incorporate the SDGs. This can be related to the fact that most of the companies work with Approach 2 *Supporting business as usual*, where one of the only benefits for the company is communication, and therefore they might not experience some of the other benefits when incorporating the SDGs in a more proactive manner. Looking at the negative factors identified, the case study has found three of these specifically important. The first one is the *lack of resources*. This includes a lack of internal competencies, a lack of knowledge about the SDGs and expertise, both on how to translate the SDGs to a local company context, but also knowledge about which positive impact the SDGs can have on a company if they integrate them.

Another important factor is *Comprehensive and global formulations*, which challenge the SMEs and according to Lederne (2019), this is due to a lack of great examples of companies working with the SDGs. The last important negative factor is *Missing guidelines and frameworks from other actors in society*, where several of the case companies expressed that they needed some clear

Table 3: Overview of the influencing positive and negative factors

	Description	Mentioned by these companies
Positive factors		
Taking responsibility and leading the way	<ul style="list-style-type: none"> Show they take responsibility for their impact on sustainability and are willing to lead the way Positive signal value 	Company 1 and 5
Social license to operate	<ul style="list-style-type: none"> More acceptance from customers leads to more sales and other partners such as suppliers and buyers 	Company 1 and 5
Communication and interaction	<ul style="list-style-type: none"> Effective branding and marketing tool Makes a framework for a common language that can be used both internally and externally Interactions with the different public bodies (municipalities and EU funds) 	Company 2, 3, 4, 5 and 6
Inspiration and innovation	<ul style="list-style-type: none"> Inspiration for new initiatives and future projects New perspectives on what to prioritise Can boost the business development and lead to a better business model Idea development, innovation and creative processes 	Company 3 and 6
Negative factors		
Comprehensive and global formulations	<ul style="list-style-type: none"> Complicates translation of the SDG to a local, company perspective Intangible and 'fluffy' formulations Many targets, indicators and different tools that makes it difficult to get an overview It is especially a problem in the preliminary and in the selection process 	Company 1, 3, 4 and 6
Lack of resources	<ul style="list-style-type: none"> Working with the SDGs requires: time, finances, internal competences and knowledge The existing resources are centred around the daily operations, limiting the resources available to work with the SDGs 	Company 1, 4, 5 and 6
Uncertainty about the SDGs prospective role	<ul style="list-style-type: none"> Companies fear that the SDGs will lose their value and impact in the future The SDGs become a commodity? A fear of rainbow washing (difficult to know when it is okay to claim that the company works with the SDGs) It is a temporary and non-binding agenda (fear of changes) Lacking knowledge and security on the effect and value of the SDGs 	Company 1, 2 and 4
A low demand for SDG compliance	<ul style="list-style-type: none"> Companies do not experience enough focus and demand from customers and suppliers They do not feel that the agenda has reached the end user/their main customers 	Company 4 and 6
Difficulties choosing SDGs and tools	<ul style="list-style-type: none"> There is a broad range of actors pointing at different tools, depending on the desired outcome Different viewpoints regarding which and how many SDGs to integrate 	Company 1, 4, 5 and 6
Missing guidelines and framework from other actors in society	<ul style="list-style-type: none"> The government and municipalities do not pay enough attention to the agenda A lack of specific national objectives that MUST be complied to The governance needs to do a follow up and make it possible to transform the global goals to local goals The companies feel that the goals are not sufficiently translated to SMEs or the citizens 	Company 1, 2, 3, 4, 5 and 6

guidelines and a translation of the 2030 Agenda that makes sense for the SMEs. This study will mainly focus on the negative factors from this point onwards because these are the important factors to overcome in order to close the gap and enable SMEs to fulfil their role in the achievement of the SDGs.

How and when are the negative factors of importance?

Based on the empirical knowledge gathered through the case study, it can be stated that different factors influence the chosen approach. These factors are among others related to the position of the company, both regarding how far along they are on

their journey towards sustainability but also whether it is a company in the start-up phase or a well-established company. In Fig. 3, the negative factors are listed in regard to the chronological process (time) of a company's incorporation of the SDGs. This is relevant in order to understand when companies will experience what factors and how this influences whether the companies choose to work with the SDGs or not, and also their choice of approach to the SDGs.

The x-axis on Fig. 3 illustrates the timeline of the process of the incorporation of the SDGs, from when a company initiates the considerations and starts with the preparation, to when the company actively incorporates the SDGs. These are divided by a line indicating the decision to initiate the work centred around the SDGs. The arrow that continues from the x-axis represents the fact that it is a continuous/ongoing process to work with the SDGs, and where improvements will always be possible.

The y-axis illustrates the attention from companies, meaning that the higher on the axis the more companies in the case study have pointed toward the respective factor. Figure 3 illustrates that most challenges occur in the preparation phase within a company, however, this can be due to the fact that most of the companies in the case study are currently in this phase, and therefore have less knowledge about the negative factors in the later stages. Based on Fig. 3, it can be concluded that most of the negative factors are presented in the preparation phase, which can be part of the explanation for why some companies know about the SDGs but never get as far as deciding to incorporate these due to the build-up of challenges they face. The negative factors can also lead to less strategic and proactive incorporation of the SDGs in SMEs because they find it hard to solve all the challenges that the factors represent, both of which are seen in this case study.

Discussion and concluding remarks

Through a literature review, five different approaches for incorporating the SDGs have been categorised. Using these as a

framework for a case study of six SMEs in Northern Jutland, Denmark, it can be concluded that SMEs approach the incorporation of SDGs in a way that is not proactive nor ambitious enough to fully support the achievement of the 2030 Agenda. This is supported by a report about sustainability in Northern Jutland-based companies that also states that the efforts need to be more proactive (Det Nordjyske Virksomhedspanel 2019). This research has thus aimed to explore the reason behind their choice of approach by identifying the influencing factors, both positive and negative.

Our research shows that the SMEs' less intensive approaches to the SDGs, to some extent, can be explained by the negative factors found to influence the SMEs' choice of approach. We have found three central negative factors, which have a significant influence on why the SMEs are applying their respective approach to incorporate the SDGs. These are:

- Lack of resources (Mainly knowledge on benefits and value creation)
- Comprehensive and global formulations (Difficult to choose SDGs and tools)
- Missing guidelines and framework (Lacking translation to an SME context)

It is important to clarify that many of the factors from Table 2, both positive and negative are interlinked, and caused by inadequate resources, knowledge and qualifications.

The interlinked nature of the factors makes it complicated to work with the SDGs for many SMEs, but it also allows several of the factors to be met simultaneously. The three central negative factors indicate that the individual SME cannot single-handedly implement the SDGs in a way that facilitates the achievement of the 2030 Agenda. The use of the SDGs in SMEs is a local problem, but cannot be solved by the SMEs alone, for this reason, the solution requires collaboration at a multilevel, across international, national and local stakeholders. The benefits of collaboration with external stakeholders are many as these stakeholders can provide new ideas, perspectives, guidance,

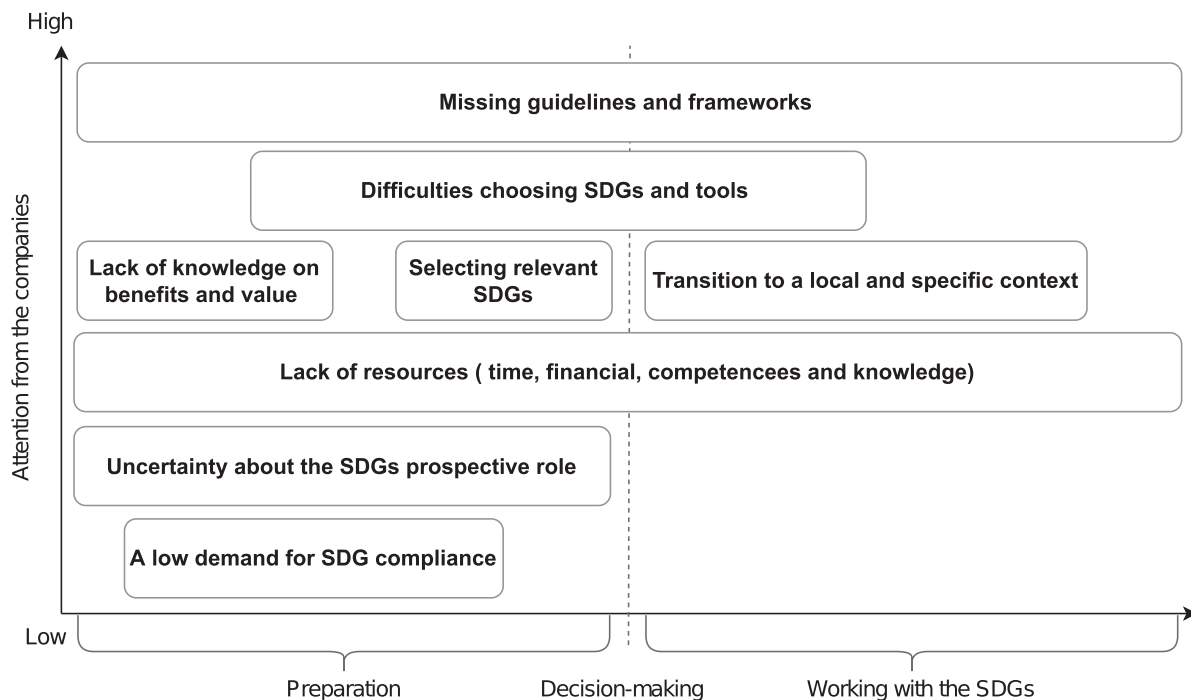


Figure 3: The influencing factors illustrated based on when in the process they occur and which of the factors are given the most attention from the company

knowledge or other resources (Schmidt, Rocha, and Faria 2020), many of which meet the negative factors identified.

Several of the SMEs in this case study mention public authorities such as the municipalities and the government as important stakeholders to provide a framework or guidelines. The public authorities do play an important part, especially when it comes to the general focus on the 2030 Agenda in society. However other more local or specific actors might also be able to provide the framework requested from the companies. Local stakeholders such as NBE and other local networks focusing on helping the local companies can contribute to a translation to a local perspective, which has shown to be important when translating this global agenda properly. Other stakeholders have knowledge and insides in specific sectors or industries. The industry associations have been found to entail a unique role due to their positioning in the industry which they can use to target and frame the knowledge on a more detailed level (The Danish Chamber of Commerce 2020c; WBCSD 2020). An example of utilising their unique position could be to gather the different stakeholders in the network of an industry, to identify and establish how an industry as a whole can contribute to the achievement of the SDGs through collaboration and co-design. The knowledge gathered could then be utilised in a generic guidance document, creating the knowledge and framework needed to strengthen the use of the SDGs in SME business models.

Conflict of interest statement. None declared.

References

- Abdelkafi, N. and Täuscher, K. (2016) 'Business Models for Sustainability—From a System Dynamics Perspective', *Organization & Environment*, 29: 74–96.
- Akademiet for de Tekniske Videnskaber. (2019) 'Danske teknologiledere om FN's verdensmål', <<https://atv.dk/sites/atv.dk/files/media/document/Vidensbarometer%2C%20delrapport%202.pdf>> accessed 1 March 2020.
- Creswell, J. W. (2014) *Research Design: Qualitative, Quantitative and Mixed Methods Approaches*, 4th edn. California: Sage Publications.
- CSR.dk. (2016) 'Danske virksomheder mangler fokus på indtjening i miljøarbejde', <<https://csr.dk/danske-virksomheder-mangler-fokus-pa-indtjening-i-miljoarbejde>> accessed 14 April 2020.
- . (2019) 'Greenwashing Trap and How To Avoid It', <<https://csr.dk/greenwashing-trap-and-how-avoid-it>> accessed 24 March 2020.
- Delmas, M. A. and Burbano, V. C. (2011) 'The Drivers of Greenwashing', *California Management Review*, 54: 64–87.
- Det Nordjyske Virksomhedspanel. (2019) *Bæredygtighed i Nordjyske Virksomheder*. Aalborg: Vækstforum Nordjylland.
- Dybvad, K. and Lebech, M. (2018) 'Fra Filantropi Til Forretning', *Jyllands-Posten*, 1–24. <<https://specialtema.jpcontent.dk/verdensmaal/fra-filantropi-til-forretning/>>.
- Ellis, T. (2014) 'Inspark: Filantropi: Fyord eller forretningsmulighed?', <<https://csr.dk/filantropi-%C2%96-fyord-eller-forretningsmulighed>> accessed 29 April 2020.
- Flyvbjerg, B. (2006) 'Five Misunderstandings about Case-Study Research', *Qualitative Inquiry*, 12: 219–45.
- Lederne. (2019) FN's verdensmål for bæredygtig udvikling: Muligheder, forventninger, fordele og barrierer ud fra et ledelsesperspektiv. Copenhagen, Denmark. <https://www.lederne.dk/-/media/files/presse/undersogelser/rapport_om_fns_verdensmaal_okt.pdf> accessed 13 April 2020.
- Mac, A. (1999) *Virksomheders Organisering af Miljøarbejdet: Når Miljøproblemerne Fortolkes og Håndteres i Praksis*. Roskilde, Denmark: Roskilde University. <<http://rudar.ruc.dk/handle/1800/994>> accessed 27 February 2020.
- Nieuwenkamp, R. (2017) 'Ever Heard of SDG Washing? The Urgency of Sustainable Development Goals Due Diligence', <<https://medium.com/@OECD/ever-heard-of-sdg-washing-the-urgency-of-sustainable-development-goals-due-diligence-be72fc52fcc>>.
- OECD. (2016) *Development Co-Operation Report 2016: The Sustainable Development Goals as Business Opportunities*. Paris: Organisation for Economic Co-operation and Development Publishing. doi:10.1787/dcr-2016-e.
- Papadopoulos, G. et al. (2018) 'Statistics on small and medium-sized enterprises', <https://ec.europa.eu/eurostat/statistics-explained/index.php/Statistics_on_small_and_medium-sized_enterprises>.
- Pedersen, C. S. (2018) 'The UN Sustainable Development Goals (SDGs) Are a Great Gift to Business!', *Procedia CIRP*, 69: 21–4.
- Raith, M. G., and Siebold, N. (2018) 'Building Business Models around Sustainable Development Goals', *Journal of Business Models*, 6: 71–7.
- Sachs, J. et al. (2019) 'Six Transformations to Achieve the Sustainable Development Goals', *Nature Sustainability*, 2: 805–14.
- Schmidt, K., Rocha, C., and Faria, E. (2020) 'Stakeholder Engagement', <<https://docplayer.dk/37420552-Teoretisk-modul-involvering-af-interessenter-forfattere-kirsten-schmidt-cristina-rocha-med-bidrag-fra-elsa-faria.html>>.
- Schönherr, N. and Martinuzzi, A. (2019) *Business and the Sustainable Development Goals: Measuring and Managing Corporate Impacts*. Switzerland: Springer Nature Switzerland AG.
- Sloan, K., Klingenberg, B., and Rider, C. (2013) 'Towards Sustainability: Examining the Drivers and Change Process within SMEs', *Journal of Management and Sustainability*, 3: 19–30.
- The Danish Chamber of Commerce. (2019a) 'Alle ombord? Status på virksomhedernes arbejde med CSR og FN's Verdensmål', Analyse note. <<https://www.danskerhverv.dk/siteassets/mediafolder/dokumenter/01-analyser/analysenotater-2019/14-alle-ombord—status-pa-virksomhedernes-arbejde-med-csr-og-fns-verdensmal.pdf>> accessed 12 March 2020.
- . (2019b) 'Skab værdi med verdensmålene—3 gode råd', <<https://www.danskerhverv.dk/presse-og-nyheder/nyheder/skab-vardi-med-verdensmalene-3-gode-rad/>> accessed 29 April 2020.
- . (2020a) 'Betyder FN's verdensmål noget for små virksomheder?', <<https://www.danskerhverv.dk/politik-og-analyser/csr/fn-verdensmal/>> accessed 24 March 2020.
- . (2020b) 'Dansk Erhverv: Behov for fokus på CSR og Verdensmål i SMV'er', <<https://www.danskerhverv.dk/presse-og-nyheder/nyheder/dansk-erhverv-behov-for-fokus-pa-csr-og-verdensmal-i-smver/>> accessed 20 March 2020.
- . (2020c) 'Dansk Erhverv ønsker branchespecifik indsats for udbredelse af FN's Verdensmål', <<https://www.danskerhverv.dk/presse-og-nyheder/nyheder/dansk-erhverv-onsker-branchespecifik-indsats-for-udbredelse-af-fns-verdensmal/>> accessed 26 April 2020.
- The Danish Ethical Trading Initiative. (2019) *Informationsindsats om Verdensmålene Rettet Mod SMV'er - et Projekt Støttet af Erhvervsstyrelsen*. Copenhagen, Denmark: Danish Business Authority. <<https://globalcompact.dk/om-os/verdensmaalene/ressourcer/>> accessed 2 April 2020.

- The Danish Society of Engineers. (2019) *FN's Verdensmål: Virksomhederne er Godt i Gang, Men Mangler Konkrete Tiltag*. Copenhagen: IDA. <<https://ida.dk/media/3863/virksomhederne-er-godt-i-gang-men-mangler-konkrete-tiltag-csl-ende-lig.pdf>> accessed 11 March 2020.
- United Nations. (2015) 'Transforming Our World: The 2030 Agenda for Sustainable Development', A/RES/70/1. New York City.
- . (2020) 'Sustainable Development Goals', <<https://sustainabledevelopment.un.org/?menu=1300#>> accessed 20 February 2020.
- United Nations Development Programme. (2020) 'SDG Accelerator for SMEs', New business solutions with the Sustainable Development Goals. Denmark. <<https://www.sdg-accelerator.org/content/sdg-accelerator/en/home/about.html>> accessed 9 April 2020.
- Visser, W. (2018) 'The SDGs and Business: New Horizon or New Smokescreen?', <<http://socioisdg.com/en/blog/the-sdgs-and-business-new-horizon-or-new-smokescreen/>>.
- Walker, J., Pekmezovic, A., and Walker, G. (2019) *Harnessing Business to Achieve the SDGs through Finance, Technology, and Law Reform*. New York: Wiley. ISBN: 978-1-119-54180-6.
- WBCSD. (2020) 'SDG Sector Roadmap', World Business Council for Sustainable Development, Switzerland. <http://www.docs.wbcsd.org/2018/04/SDG_roadmap%20Guidelines.pdf>.
- World Business Council for Sustainable Development. (2020) 'The Sustainable Development Goals and the Role of Business', <<https://sdghub.com/ceo-guide/>> accessed 22 February 2020.
- Yin, R. K. (2009) *Case Study Research: Design and Methods*, Vol. 5, 2nd ed. California: SAGE Publications. ISBN: 978-1-4129-6099-1.