European Management Journal 39 (2021) 720–730

Contents lists available at ScienceDirect

European Management Journal

journal homepage: www.elsevier.com/locate/emj

Climate change, consumer lifestyles and legitimation strategies of sustainability-oriented firms

Ahmad Arslan [a, *], Lauri Haapanen [a], Pia Hurmelinna-Laukkanen [a], Shlomo Y. Tarba [b], Ilan Alon [c]

[a] Department of Marketing, Management & International Business, Oulu Business School, University of Oulu, Finland
[b] Birmingham Business School, University of Birmingham, UK
[c] School of Business and Law, University of Agder, Norway

ARTICLE INFO

Article history:
Received 14 September 2020
Received in revised form
31 January 2021
Accepted 16 March 2021
Available online 19 March 2021

Keywords:
Climate change
Cognitive legitimacy
Nordic firms
Sociopolitical legitimacy
And sustainable firms

ABSTRACT

This study explores the links between climate change, consumer lifestyles, and legitimation strategies of sustainable firms. Our findings offer new insight into this under-researched area based on qualitative case studies of four Nordic firms operating in industrial and consumer contexts. We find that climate change consciousness is a major driver for all case firms' sustainability-focused operations, but the dynamics differed. Achieving sociopolitical legitimacy emerges as an important factor for the case firms operating in the energy sector, especially as it connects to government incentives and regulative pressures. However, cognitive legitimacy is increasingly important for them also, and the firms are trying to connect to their consumers' lifestyles as well. In turn, for the case firms operating in the consumer (clothing) industry, functionality and the use of products are highlighted even though cognitive legitimacy based on linking to their consumers' lifestyle is visible. Finally, the findings reveal that despite the sustainable lifestyles are increasingly important and better recognized in firm strategies and practices, other practicalities of running the business successfully in a highly competitive marketplace are relevant. Building legitimacy in such a way that captures and justifies different approaches, therefore, emerges as the connecting factor between the changing consumer behavior and pro-environmental firm practices.

1. Introduction

Climate change has been identified as the most significant environmental challenge faced by humanity in recent history (e.g. Dow & Downing, 2016; Kolk & Pinkse, 2004). It spreads across all levels of society, and everyone, including firms globally, have been under increasing pressure to do their part in addressing this key concern (Jones & Levy, 2007; Reid & Toffel, 2009; Sullivan & Gouldson, 2017). Stringent environmental regulations aiming to address the problems and find solutions are becoming a norm in developed and, increasingly, also in emerging economies (Sullivan, 2017). Subsequently, firms are required to disclose their environmental impact by not only regulatory bodies, but also other stakeholders, such as consumers as one group that has increased its demands for more information and more responsibility (e.g. Turker and Altuntas, 2017; Baldini et al., 2018). Relatedly, scholars have argued that such pressures and strict environmental regulations shape a new competitive landscape (e.g. Boyd et al., 2017; Kolk and Pinkse, 2007; Porter & Van der Linde, 1995), where sustainable or green strategies, and focus of firms on these issues, play a major role in helping them gain legitimacy and succeeding (Jones & Levy, 2007; Scott, 2017; Soewarno et al., 2018).

A notable amount of scholarly work has been done during the past decade in terms of technological innovations that help firms reduce their carbon footprint, which has been identified as the biggest reason for climate change (Weaver et al., 2017; Jordan et al., 2018). As consumers, especially in developed countries, are increasingly becoming conscious of their lifestyle choices and subsequent influences on the environment (Buerke et al., 2017; Carley & Spapens, 2017; Zsóka et al., 2013), such technological developments to counter climate change are closely linked to consumer lifestyles. In fact, the changing consumer lifestyles are

* Corresponding author.
E-mail addresses: ahmad.arslan@oulu.fi, arslan.ahmad1981@gmail.com (A. Arslan), lauri.haapanen@oulu.fi (L. Haapanen), pia.hurmelinna-laukkanen@oulu.fi (P. Hurmelinna-Laukkanen), s.tarba@bham.ac.uk (S.Y. Tarba), ilan.alon@uia.no (I. Alon).

https://doi.org/10.1016/j.emj.2021.03.005

highly relevant for and efficient in countering the carbon footprint (e.g. Stern and Wolske, 2016). In line with acknowledging the customer demands, many innovative firms are starting to modify and develop business models that cater to such expectations (e.g. Gast and Gundolf, 2017; Singh et al., 2012). However, things evolve relatively slowly, and it has been argued that even though awareness concerning climate change and environmental challenges has been increasing for a couple of decades, the changes in associated lifestyles have started to become more visible and observable only more recently both in customer behavior and in pro-environmental firm strategies (e.g. Santamaria et al., 2016; Howard-Grenville et al., 2019; Gatersleben et al., 2019). Interestingly, there still may be gaps between firm practices and how customers respond to those (e.g. regarding whether customers genuinely trust industrial organizations), as well as between how customers behave and to what extent firms perceive that behavior (e.g. to what extent firms can observe and react to customer lifestyles; e.g. De Vries et al., 2015; Partzsch et al., 2019; Wilson, 2013).

Due to the relative newness of this issue as a research topic, it has been proposed that researchers should focus on studying the strategies of firms that have responded to the changing customer demands in different national and industrial contexts. It has been advocated that this would increase understanding of associated dynamics (e.g. Ge et al., 2016; Soewarno et al., 2019). This specific recommendation forms our paper's motivation, where we aim to analyze the concerns regarding climate change in terms of observed lifestyle changes of consumers, institutional pressures, and sustainability-oriented firms' strategies. We bring in multiple streams of literature to present a holistic picture of this complex phenomenon. Therefore, the current paper addresses lifestyle changes by specifically bringing in insights from sustainable lifestyle literature and referring to emergent green consumer dynamics about climate change. We further link this sustainable or green lifestyle of consumers to the firm strategies that reflect specialization in products or services targeted at this segment. We consider the complexity of the supply chain and value networks as something that influences the actual carbon footprint, but that may or may not be visible to the customers.

In doing this, we probe legitimation strategies of firms that use a sustainable business model using neo-institutional theory (e.g. Scott, 2013; Greenwood et al., 2017). Legitimacy has been noted in some recent studies on similar topics to play a significant role in firms' success and growth that pursue pro-environmental approaches and practices (e.g. Ge et al., 2016; Soewarno et al., 2018). However, these studies have mostly considered legitimacy either at a general level, referring solely to environmental legitimacy (e.g. Soewarno et al., 2018), or they have focused only on sociopolitical legitimacy (e.g. Ge et al., 2016). We focus on both sociopolitical and cognitive legitimacy as the factors linking climate change dynamics and sustainable lifestyles of consumers with legitimation strategies of sustainable firms, thereby introducing new insight into the interplay of changes in consumer lifestyles and strategies of sustainable firms.

We conduct empirical analysis in the Nordic countries that are considered to belong to the leaders in ecological consciousness and orientation at the firm and societal levels (e.g. Strand et al., 2015; Hoff, 2017; Ulvila, 2018). Our paper undertakes exploratory case studies of four Nordic firms involved in (close) collaboration with their customers (end users) to help them in lifestyle changes. Our study's case firms are Väre, Oomi, Infinited Fiber, and The Other Danish Guy (TODG). The two first-mentioned firms operate in the energy sector and promote solutions toward reducing carbon emissions in energy production. They both provide solar power solutions for private houses, and in doing this, they support environmentally conscious customers to lower their carbon footprint and offer solar-powered households to sell their surplus electricity back to the grids. The two latter case firms operate in the clothing industry. They both use waste-based raw materials in their production. These case firms offer an ideal setting for analyzing specific types of legitimacies as well as linking those legitimacy types with sustainable lifestyle literature in both manufacturing and service sectors.

The rest of the paper is organized as follows. The next section presents the literature review, followed by the research methodology discussion. We present findings after that, and the paper concludes with the presentation of study implications, limitations, and future research directions.

2. Literature review

Firms are increasingly integrating sustainability aspects in their strategic and operational decision-making (Banerjee, 2002; Thomas & Lamm, 2012). The drivers for adopting pro-environmental strategies and practices come from different directions: on one hand, pressures come from the institutional level through regulations and other such adjustment endeavors by policymakers that push companies to react. On the other hand, individuals' attitudes within organizations and preferences are influential to a growing extent (Cramer, 2005; Howard-Grenville et al., 2019). The central stakeholders, such as customers, are increasingly concerned with organizations' carbon footprint and expect companies to find solutions to climate change problems (López et al., 2019; Randrianasolo, 2020). However, finding a balance between the societal goals and business reality is not straightforward, and at the same time, the impressions, level of understanding, and expectations of consumers are not always clearly observable in the organizations. This challenges organizations' sustainable strategy implementation in multiple ways. One of the main issues is, how organizations can gain legitimacy as an actor that understands and cares for phenomena, such as climate change, and customer lifestyles that connect to these phenomena. In fact, legitimacy may become a relevant connecting element between the changing consumer behavior and pro-environmental firm practices. The following discussion touches upon these issues.

2.1. Climate change awareness and changing consumer behavior

Extant research refers that individuals' lifestyles reflect a specific worldview and its associated values (Hedlund-de Witt et al., 2014). In line with this, climate change awareness among the general public has started to lead to a transition towards more sustainable lifestyles that secure subsistence and wellbeing of future generations (e.g. Turker and Altuntas, 2017; Gast et al., 2017). A sustainable lifestyle is emerging as a choice of many consumers, especially millennials and post-millennials. This development trajectory also means that the role of identity and consumption culture as central tenets of the lifestyle has become highlighted by researchers as factors to be reckoned (e.g. Gatersleben et al., 2012, 2019; Su et al., 2019).

A particular aspect of the connection between lifestyle changes, identity, and consumption culture is that a significant change can be observed especially in developed, primarily western, economies. In these economies, the view of consumption has changed from seeing it as a means to meet some need, to a factor that reflects self-identity (e.g. Belk, 2014; Howell, 2013). An increasing number of consumers in developed economies seek new identity by focusing on consumption choices and patterns (e.g. Howell, 2013; Gatersleben et al., 2019). This also resonates with a large body of literature suggesting that increased consumption does not necessarily correspond to individual consumers' happiness or well-being

(Fanning & O'Neill, 2019). Some scholars highlight the importance of meaning in consumption (i.e. lifestyle choice), noting that if consumption becomes a substitute for the lack of meaning and belonging (Gatersleben et al., 2012), consumers lapse into a permanent state of unfulfilled psychological and social need (e.g. Kasser, 2016). Sustainable lifestyles tend to fulfill the identity and consciousness attributes of consumption for consumers (e.g. Uren et al., 2019). This can explain why both demand and consumption of sustainable products in all spheres of life rise globally, especially in developed economies (Iannuzi, 2017). For example, an increasing number of European consumers are willing to pay more money for their products if they were produced in more environmentally friendly ways (Gregory-Smith et al., 2017). This level of acceptance supports Haen and Requillart (2014) argument, who state that consumers play an important role in determining the type of production, including forcing firms to move towards sustainable production and delivery mechanisms. Hence, many firms specifically emphasize this aspect and make sustainability as their key strength or selling point for such consumers.

2.2. Firm practices – opportunities and challenges in responding to climate change

Howard-Grenville et al. (2019: 355) state that "many business organizations across a wide variety of sectors are now framing their environmental, social, and governance (ESG) actions in terms of the [United Nations Sustainable Development Goals] SDGs." Many studies have identified key features of sustainable organizations in general and increased the body of literature on corporate practices.

Sustainable firms integrate environmental, economic, and social issues into their daily tasks to achieve sustainable performance (Gouda & Saranga, 2018). While the practical manifestation of sustainability varies based on the industrial sector where the firm is operating, the mentioned aspects are visible in both strategies and operations of sustainable firms in one way or the other. Sustainable companies also focus on sustainability in their whole value chain from the point of origin to the point of consumption (e.g. Brandenburg et al., 2014). They often create a win–win situation for companies, shareholders, consumers, communities, and the environment (Pajunen et al., 2016).

However, sustainability is increasingly becoming a buzzword in all spheres of life, and it sometimes emerges in questionable contexts. Realities of business life may hinder even the most genuine attempts to shift the firm practices toward sustainable views. Firms might find it attractive to adopt more sustainable processes and technologies and reduce waste, but there are sometimes structural constraints that firms face (Thomas & Lamm, 2012). For example, the accountability to profit-seeking owners and shareholders may keep the focus on short-term activity rather than on SDGs that exhibit much longer timeframes. Therefore, in some cases, firms may lapse into practices such as greenwashing (e.g. De Vries et al., 2015).

Nevertheless, the overall developments suggest that firms must gain social acceptance and reach legitimacy to succeed and survive in environments where climate change and other such environmental issues emerge among their stakeholders and challenge them (Berrone et al., 2017; Menon & Menon, 1997; Namagembe et al., 2016; Randrianasolo, 2020). For example, de Vries et al. (2015: 142) note for the energy sector, that companies "face a dilemma regarding how to communicate their environmental policies to the public." In particular, they point out that communicating that pro-environmental practices are motivated by concern for the environment, but at the same time as such communication could elicit positive reactions, it may generate accusations of corporate greenwashing (de Vries et al., 2015). Therefore, an important issue is how sustainable firms credibly legitimate their strategies and operations in different stakeholders' eyes.

2.3. Legitimacy concerns

We argue that legitimacy can be considered a connecting element between firm practices and customer behavior. It tells whether customers with their specific preferences consider firm practices (covering these from production to internationalization to marketing) to genuinely reflect such approaches that match their lifestyles (Randrianasolo & Arnold, 2020; Thomas & Lamm, 2012).

Broadly defined, legitimacy can be seen as "a social judgment of acceptance, appropriateness, and desirability, which enables organizations to access other resources needed to survive and grow" (Zimmerman & Zeitz, 2002: 414). This connects directly to how firms that move towards sustainability in their businesses can succeed. If the customers do not accept firm approaches or do not find them credible, the firms likely fail (see de Vries et al., 2015). However, looking at legitimacy at a general level does not necessarily tell how well consumer lifestyles and firm strategies and practices match in terms of legitimacy.

Prior literature has introduced several typologies of legitimacy (e.g. Hunt & Aldrich, 1996; Suchman, 1995; Greenwood et al., 2017). Of these, sociopolitical legitimacy (Archbild, 2004; Deephouse et al., 2017), which corresponds to regulative and normative pillars in Scott's (2013) institutional framework (e.g. Diez de Castro et al., 2018), and cognitive legitimacy referring to viewing an organization as a permanent part of the environment (e.g. Suchman, 1995; Shepherd and Zacharakis, 2003; Deephouse et al., 2017) emerge often. In addition to these, research also acknowledges pragmatic legitimacy (i.e., social acceptance of the organization founded on the organization's ability to generate practical benefits to relevant stakeholders), and moral legitimacy (referring to morality and "rightness" being associated with the organization). (Thomas & Lamm, 2012; Randrianasolo, 2020). While pragmatic legitimacy could be considered to connect to consumer behavior from the identity point of view, moral legitimacy resonates with climate change awareness and the "rightness" of environmentally friendly approaches.

Sociopolitical legitimacy is attained by maintaining proper behavior according to laws and rules set forth by governments and industries (Scott, 2013) as well as complying with "softer" requirements, such as certain professional norms, set forth by key stakeholders in society, (e.g. Suchman, 1995; Zeldich Jr, 2018). For firms aiming to highlight the sustainability aspects in their business models, this type of legitimacy can be reached through responding to regulatory requirements and demands of stakeholders to take into account issues that may ease addressing climate change concerns (see, e.g. Shepherd & Zacharakis, 2003; Deephouse et al., 2017). Most firms of these days can gain some level of sociopolitical legitimacy concerning sustainability as environmental regulations are becoming tough globally (Thomas & Lamm, 2012), even though there is some variation regarding compliance, and sometimes firms end up creating new rules (Veal & Mouzas, 2011).

On the other hand, this relatively formal and observable element shows only one side of the firm behavior. A wider view is achieved by also considering cognitive legitimacy, a more tacit form of legitimacy (Deephouse et al., 2017; Zeldich Jr, 2018). It has been argued that "from the cognitive perspective of legitimacy, organizations are legitimate when they are understandable (i.e., there is greater awareness and therefore less uncertainty involved with the organization) rather than considering when they are desirable" (Shepherd & Zacharakis, 2003, p. 151). Suchman (1995: 583) described this type of legitimacy as "the most subtle and powerful"

of the dimensions of legitimacy. Considering that credibility may be an issue for sustainable firms, cognitive legitimacy can be considered critical for gaining long-term competitiveness and receiving acceptance from consumers with sustainable lifestyles. It can become the aspect that differentiates sustainable firms from each other in terms of legitimacy.

Existing literature lacks comprehensive, explicitly combined discussion on legitimacy, sustainable firm practices, and consumer behavior/lifestyles; instead, existing studies have quite often considered these aspects separately or in limited combinations. We argue that it is worthwhile to examine firm practices regarding both cognitive and sociopolitical legitimation strategies addressing regulatory requirements (e.g. Archbild, 2004; Deephouse et al., 2017), and cognitive legitimation strategies (e.g. Shepherd & Zacharakis, 2003; Deephouse et al., 2017) linked to the consumer lifestyle changes connected to sustainability (e.g. Howell, 2013; Santamaria et al., 2016; Gatersleben et al., 2012, 2019). To advance research in this direction, we conducted exploratory case studies described below, aiming especially to find out how sustainable firms address these aspects and how they reach both types of legitimacies.

3. Empirical research design

The qualitative approach generally allows for taking an explorative approach and gaining insight into a topic lacking comprehensive theorization or earlier empirical evidence (Easterby-Smith et al., 2015; Saunders et al., 2012). We placed our focus on the interconnection between firm reactions to climate change, consumer lifestyles, and legitimation strategies from a new perspective (see Kovács & Spens, 2005), that is, in a context of Finnish firms that have based or re-focused their strategies on meeting the demands of environmentally conscious customers. The qualitative approach provides us with a relatively broad understanding of end-users' consumption behavior and also reveals shifts in customer lifestyles – as perceived by firms. While legitimacy regarding environmental aspects realizes (or not), among various stakeholders, how companies perceive their (potential) customers' lifestyles is influential in determining what kind of practices and strategies they choose to apply. Therefore, understanding the interplay between pro-environmental firm practices and consumer lifestyles can be improved by examining how managers of companies observe and interpret information on and from consumers and what kind of approaches firms (subsequently) take to build (different types of) legitimacy.

Considering that theoretical discussion exists on our study's individual elements, we had some guidance in the prior literature to base our empirical examination. Following the abduction logic, we utilized the available theoretical frameworks and views to target our study (Dubois & Gadde, 2002) and conducted data collection and theory building in parallel (Taylor et al., 2002). The case-study approach building on interviews and data from secondary sources (company webpages, reports, and articles written in the newspapers) provided the best approach to collecting the needed empirical materials. We utilized a semi-structured interview guide for data collection and used theory-guided sampling to search for companies that would have sustainability explicitly present in their business models (see Easterby-Smith et al., 2015). A considerable part of prior research work on legitimacy has been conducted in the context of established, mature firms (e.g. Suchman, 1995). This aspect is important to consider: Even if established firms are also increasingly adopting sustainable business models, many sustainable firms are newly formed entities. Therefore, in the search for case-organizations, we paid attention to the variety in this aspect also.

In our empirical research design, we aim to gain in-depth insight into the phenomenon (interconnection between climate change, consumer lifestyles, and legitimation strategies; the last one as the likely connecting factor). Furthermore, we collected data from two different industries: The clothing industry data represent quite well firm reactions to consumer lifestyle changes and environmental awareness regarding consumables, whereas data from durable goods – energy supply decisions in particular – provide a view on firm responses to consumers' long-term commitments. This setting provides us with a possibility to study the two distinct industries individually, and after doing this, to compare the findings to reveal possible commonalities and differences. More specifically, we chose four organizations for empirical examination: two electricity brokers that have included in their offerings solar power panel solutions to both consumers (private houses) and business customers, a fiber manufacturer using waste-based raw materials, and a clothing firm that is manufacturing men's underwear made of plastic waste collected from seas. Table 1 summarizes the key information on the case organizations.

Väre, established in 2018, is a joint venture owned by four Finnish energy providers, Savon Voima, Jyväskylän Energia, Kuopion Energia, and Lappeenrannan Energia. Väre is a broker selling the electricity produced by these four owners, and it also provides customers with alternative electricity solutions, mainly solar power panels. Väre is Finland's fourth largest electricity broker, yet the firm aims to grow by selling services that significantly reduce carbon dioxide emissions and respond to the climate change challenges.

The second case firm has a very similar background as Väre. Oulun Sähkönmyynti, Vantaan Energia, Porin Energia, Lahti Energia, and Oulunseudun Sähkö established a joint venture, Oomi, in 2019. Oomi is Finland's third largest electricity broker and, in addition to brokering, the firm provides solar power panels and electric car charging stations. Similar to Väre, Oomi is also concerned with climate change and global warming. In this regard, the firm's business director highlights the role of end-users: "*Consumers can solve this problem quickly by buying only green electricity, that is, the electricity that has been produced by using renewable resources*."

The third case firm, Infinited Fiber is a spin-off firm from a state-owned non-profit company, Technical Research Centre of Finland Ltd (VTT). Already in 1994, VTT started research on diverse pulp refining methods. A major breakthrough occurred in 2013, when one of the firm founders, at the time working as a Research Professor in VTT, invented a means to manufacture fiber using waste-based raw materials – cellulose waste ranging from old newspapers to old jeans. The firm, Infinited Fiber, is developing and licensing technologies that allow waste-based textiles to be re-manufactured as fiber in new clothing production, for example. The firm's customers include fashion big brands, such as Adidas, Levi's, H&M, and IKEA. The firm is currently in the process of registering their fiber as a new fabric material and ramping up the larger scale sales, firm's CEO forecasts: "*Our technology will be ready in 2023 to produce fiber commercially*," and expects a higher growth phase to follow.

The fourth case company is called the other danish guy (TODG). In 2014, two Finnish friends were jogging in New York Central Park, and one ended up suffering from severely bothering briefs. Due to this unfortunate incident, the other jogger - the case firm founder began to think if it would be feasible to make comfortable underpants. Hence, TODG was established in 2015. The firm designs and manufactures men's underwear made of waste-based raw material, such as plastic fishing nets collected from seas. Underwear fabric is made of regenerated nylon, which is lightweight, breathable, and fast-drying. Today, TODG sells men's underpants in 27 countries

Table 1
Case firms overview.

Case firm	Väre	Oomi	Infinited Fiber	the other danish guy
Firm background	Founded in 2018 45 employees 250,000 customers	Founded in 2019 38 employees 430,000 customers	Founded in 2016 17 employees	Founded in 2015 11 employees
Industry	Energy sector, electricity sales	Energy sector, electricity sales	Technology development and licensing	Clothing, men's underwear
Locus of operations	Operates solely in Finland	Operates solely in Finland	Global, customers include major global clothing brands	Global, customers in 27 countries

and is the best-known and best-selling men's underwear brand in Finland.

We interviewed the key informants in these companies during spring 2020. In Table 2, we show the role of the interviewee and date of the interviews. We also studied the case firms' webpages, reports, and articles written on their operations and technologies for data triangulation. The resulting data is suitable in terms of quality to address our research questions. Customers' lifestyle, climate change consciousness, sociopolitical legitimacy, and cognitive legitimacy, especially from the company perspective, are discussed in the following sections.

4. Data analysis and study findings

In line with our research approach, the data were analyzed in parallel with collecting it, trying to understand the meaning of fragments of information in the context within which they emerged. We utilized a directed content analysis (Hsieh & Shannon, 2005), a distinct approach of a content analysis that can be used in situations in which the prior theories can be used to outline the coding categories. Content analysis, in general, has an objective and a systematic classification process of coding in order to interpret themes and patterns that come to the fore in the data (Hsieh & Shannon, 2005; Kassarjian, 1977). In our study, the role of data analysis was to complete and extend the existing sustainability and legitimacy research conceptually, and find out how existing views could be combined. Typically in the content analysis, textual data are first coded into categories, such as words, phrases, or themes (Gaur & Kumar, 2018). To familiarize ourselves with our data's content, we first listened and read through the interview material, collected summary tables, and wrote narratives of the cases for discussion among the researchers. As our data were collected primarily through open-ended and semi-structured interviews, we let our interviewees speak freely and we let the discussions roam to gain as extensive understanding of the topics as possible. Hence, we received rich data that we coded and scrutinized more closely in word processing software using the predetermined themes (emerging from earlier theorization) shown in Table 3. Because our interview guide included several questions (discussion themes) on specific topics, we decided to allocate the responses of the interviewees to meet the predefined themes capturing the firm's sustainability-orientation and pro-environmental practices and strategies, different forms of legitimacy, and customer lifestyles and behavior as experienced by the case firms.

4.1. Climate change and case firms' sustainability approach

Following our sample selection, all case firms act to reduce carbon emissions or collect plastic waste from oceans with the idea that more sustainable ways to respond to customer needs help address the climate change problem. Both electricity broker firms consider that their actions influence the climate positively. In this respect, the leading specialist in Väre notes: "*From the energy provider perspective, sales of renewable energy have a close connection to climate change, it cuts the peak of the most polluting production. […] renewable energy, such as wind and solar power, is one part of the holistic energy solution; yet, if the wind is not blowing or the sun is not shining, they do not produce electricity.*"

Väre started its solar panel power business in 2019; the leading specialist tells: "*New energy solutions, that is, solar power and electric car charging stations, relate more closely to the energy brokering than to traditional energy production business. It was natural to combine these, too. At that time, demand for solar power started to rise. Also, the electricity sales have been facing very competitive pressures for a long time, thus, energy providers were looking for other possibilities to grow, and in this regard, solar power was seen as the best alternative.*" The background of Oomi solar panel power was quite similar, the business director explains: "*All Oomi owners had their own solar power businesses, some more and some less. Oulun Energia started this business in 2013, when the firm started to* support *privately-owned houses' investments in solar power. Years later it was certain that these solar power solutions do work, and we anticipated that their demand would start increasing. In the beginning, we were focusing on the business customers as private houses had some challenges, for example, the consumption of electricity during sunny summer days. The situation was the opposite with business customers, firms needed cooling during the warmest hours in a day.*"

Both firms in the clothing industry use waste-based raw materials in their production and in doing this, they aim to act in an environmentally sustainable way. Yet, they argue their motives differently, the CEO of the Infinited Fiber says: "*In the beginning, we were looking at traditional wood-based raw materials and waste, and quite soon, I made a conclusion that markets are genuinely interested in waste-based raw materials. At the same time, we decided to focus on large customers, very big brands, in order to make a breakthrough as new technology. Big brands had a clear message; they wanted to have waste-based raw materials […] difficult to say if it was because of climate change or sustainability or whatever, but the message was clear, and for this reason, we have been concentrating on the waste-based raw materials.*"

TODG approaches these environmental issues from another

Table 2
Interviews details.

Case firm	Väre	Oomi	Infinited Fiber	the other danish guy
The role of the interviewee	Leading specialist	Business director	CEO	CEO
Date of the interview	April 15, 2020	April 17, 2020	April 16, 2020	April 24, 2020

Table 3
The coding schemes.

Theoretical perspective	Predetermined interview theme
Climate change and sustainability	Climate change in the view of interviewee
	Climate change and its importance for the firm
	Climate change and its importance generally for the industry
	Sustainability and its link to the corporate vision/mission/statement
	The role of sustainability as a core competitive tool for the firm
	The role of sustainability as a core competitive strategy for the firm
	Sustainability as internal choice or driven by external factors or both
Consumer lifestyles	Users of the case firm's products
	The lifestyles of the consumers (user)
	The consumer identity (sustainable lifestyle) specificities
	User (consumers) lifestyle regarding firm's marketing and positioning strategies
Legitimacy	Socio-political legitimacy, regulative pressures, case firm's perception
	Specific (tangible) outcomes associated with sociopolitical legitimacy
	Cognitive legitimacy
	Possible conflicting legitimacy requirements from different stakeholders
	The role of regulative pressures regarding firm's strategies
	The role of regulative pressures regarding firm's strategies and climate change

angle, the CEO notes: "*Many times, people ask me how to design environmentally sustainable business. I am a bit of a simple person; I do not understand this question. In my opinion, sustainability has become more communication-focused; climate warming has become moral posing. Planning business is planning business. It is crazy to think that it [environmentally sustainable business] would be different, or it would be more ideological, it is not, it is very pragmatic.*" He continues: "*After we had decided to establish the other danish guy, I saw a video in which a plastic pipe was removed from a sea turtle's nose. It was really touching […], and I started to think if it would be possible to manufacture underpants using plastic waste. Hence, we were not trying to, by force; identify some area of responsible business.*" However, the firm had difficulties in finding suitable fabric manufacturers: "*I was trying to find a factory in Finland, I called every single instance […] if there is a way to transfer plastic as a yarn and fiber. I lost my faith in Finnish engineering; they gave me a thousand reasons why this cannot be done. Then I found an old, crazy entrepreneur in Italy, who had started making yarn from sea waste plastic in 2015. He wanted to be part of the solution, not to be part of the problem. Success requires belief, vision, and courage in things that have not been proved. Now a big player, Prada, for example, just announced that all of their pantyhose would be using their yarn.*"

4.2. Prerequisites for environmentally sustainable business

Concerning carbon emission reduction, climate change, and environmentally sustainable business in general, all case firms have clear goals. For example, the leading specialist in Väre notes: "*Emission reduction and global warming has a central role in our business. We are not trying to be a traditional electricity sales firm, but we are aiming at finding new services to our customers to provide benefits, in which climate change is a central aspect.*" The CEO of TODG makes it very clear: "*If we want to empty oceans from the waste, we need to sell products that are consumed a lot.*"

In order to survive in the competitive landscape, also environmentally sustainable business needs to be profitable. Hence, the offering must meet customers' needs. In this respect, the leading specialist in Väre states: "*Global warming is a central theme. We have a quarter of a million customers in the electricity broker business, at the same time; the role of energy efficiency solutions is continuously increasing.*" In some cases, end customers act as drivers, and the leading specialist continues: "*Customers come with two central drivers. Savings in terms of money, and especially within the B2B sector, an aim to achieve zero emissions. […] Clients of our customers, especially in international business, have required that the energy have to be produced using renewable energy, at least to some extent.*" Similarly, Oomi's business director notes: "*In respect to climate change and global warming, our strategy has been obvious. Regarding green energy, the bottom line is our customers' preferences; we follow their buying behavior and act accordingly.*"

Customers' needs and requirements play a central role also for the two case firms in the clothing industry, but business realities have a different role. When discussing with the CEO of the TODG to which extent microplastic waste in oceans influenced the establishment of the firm, he bluntly notes: "*Not a bit. It was not a reason to set up the firm. Moreover, in my opinion, it should not be a reason for any firm. Business must be based on an existing, real need; it must be based on peoples' real needs. [When establishing the firm] I believed that there is a demand for good underpants.*" Contrary to TODG, for Infinited Fiber, the choice of waste-based raw material was due to their customers' needs especially in terms of values and the related demand changes. The CEO explains the role of customers' customers' changing behavior regarding environmental responsibility and sustainability as follows: "*The brands are the drivers. They aim for differentiation and seek new ideas, all brands are using the same materials, and competition between brands is fierce. It is not the product but brand image, which appeals to customers. Brands shape their images as being responsible actors.*"

When discussing if an environmentally sustainable business can be profitable, or if the firm is doing it just for the sake of the image, Väre leading specialist notes, "*Roughly, the number of solar power panel installations has doubled every year. Business-wise, its share is remarkable, and its share is increasing. Solar panel technology has improved, the price of panels has decreased, and at the same time, panels' efficiency has increased. In other words, today the same number of panels produces more energy than earlier. As a result, solar power solutions have become economically feasible.*" The business director in Oomi verifies this in his statement: "*Considering firm's turnover, it [solar power business] brings roughly five percent. It is remarkable in that sense that it is the business where the growth is. In the big picture, investments in solar power are profitable. On a system level, it is even more profitable since it reduces the need of re-investments: When the energy is produced using renewable energy, think about hydro power, once established there is no need for changes, whereas coal or peat, they are only temporary solutions and they need replacement in some point of time.*"

As the situation is slightly different for Infinited Fiber that is operating solely with business customers, that is, with big fashion brands. The Firm CEO believes that environmentally sustainable business can be profitable. Yet, they acknowledge that it may take

some time: "*We are currently in a piloting phase, so the production costs are astronomical, and in a big picture, this is nonetheless relevant, our calculations show that the price will be competitive. The role of fabric, say in a t-shirt, cotton is around two euros per a kilo, t-shirt requires 200 g of cotton, so the cost of cotton is 40 cents. If the premium is ten percent, the cost is 44 cents. The bottom line is how products are being priced. Many firms are considering introducing these kinds of products with some premium, for example, the classic price point of Levi's jeans is 69.90 so it would be something like 99.90. They believe that as there are currently not so many genuinely environmentally friendly products available, in the short run, the firm is able to charge such a premium. In the long run, consider for example polyester that was manufactured using recycled PET bottles, it was ten percent more expensive, and today its price is the same with virgin polyester.*"" For Infinited Fiber, an own factory might also be an option as the CEO explains: "*We license our technology. We have been progressing well in licensing negotiations, we are considering how [Infinited Fiber customers'] existing production lines can be converted, yet we cannot put all eggs into the same basket, we are researching if it would be feasible to set up an own production unit in Europe.*" In principle, this means that the profit needed by companies producing environmental innovation can be based on quite different business models, but the bottom line is, that some return on investment is needed to have the incentives to keep on innovating.

The CEO of TODG agrees on the additional costs and points toward business realities, but also acknowledges the relevance of the experienced customer value: "*The price of regenerated nylon is multifold compared to virgin raw material. Price is only a problem in the absence of a value. People pay the price if the feel that they gain value, and the value is not only in saving the world, but the value comes from the fact that damn it, these pants feel that there are no pants, these are durable […] it would be enough that for example, 100 million people would buy just one pair. Our business is to produce with high production costs such as products that people are ready to pay for.*"

4.3. Regulative dynamics and sociopolitical legitimacy

Our four case firms face different regulative pressures from governments and public administration; on the other hand, these public bodies also support some of their operations. Regarding the energy industry, especially solar power, the leading specialist in Väre tells: "*Energy subsidies matter. Business Finland [public business* support *organization in Finland] provides* support *for firms' investments in renewable energy, that is, solar power. This* support *reflects on our business, in cases in which the* support *decisions are prolonged, the deals are also postponed. Private households do not get investment* support*, but they can deduct a remarkable share of the installation work expenses in their taxation. In the legislation, we have some obstacles that are preventing the further expansion of solar power. From the housing cooperative, in buildings with several flats, the legislation is slowly moving towards a situation in which the economic benefits of the solar power that a building produces, can be further allocated to flat owners.*" In a similar vein, Oomi business director suggests: "*Households can deduct the share of the installation work expenses in their taxation. Regarding the solar power station installation, the amount that can be deducted in the taxation is approximately one-fourth of the total cost. Firms can get twenty percent as an energy subsidy when investing in solar power. Buildings with several flats are the worst off, as they do not get any subsidies, nor can the flat owners deduct investment costs in their taxation. Legislation in this regard is still under work, and the pace of this legislative work is incredibly slow.*"

CEO of the Infinited Fiber opens up the Finnish regulation: "*Whenever we are discussing waste and waste recycling, the public sector has a major role. In Finland, always when the raw material is waste, there are certain aspects related in its transportation et cetera […] waste should be normalized as a raw material. When using waste-based raw materials, the price of raw material, per se, is low. Yet, waste is an unconventional raw material, it is unstable, often unclean; hence, the manufacturing process is more complicated compared to the use of virgin raw materials. So, the initial cost advantage of using waste is often diluted. The EU is currently aiming to separate clothing waste from other waste, to maximize the availability of clothing waste. As a result, this is leading to an excess supply of clothing waste, and the price is coming down.*" He continues with the regulation at the European Union level: "*In the Green Deal, the EU is considering the degree to which materials have to include recycled materials or components. Just waiting for a consumer to initiate the change, this would be too slow. In my opinion, it is important the EU is behind these initiatives, if the decisions were to be made by nations, differences between countries would just slow down the progress.*"

On the other hand, TODG does not consider that regulation has any impact, and the CEO notes: "*Our business is nice in that sense that there is no related legislation and regulation. There are many talks, responsible firms, innovation* support*, and sustainability, […]* funds *are being allocated, yet, decision-makers do not know what they are doing. I believe in markets, demand, supply, and gaining of people's trust will dictate if the market economy works.*"

The dialogue with stakeholders comes with different forms. The leading specialist in Väre explains: "*We are doing close cooperation with our solar power system providers and importers. Some of them are involved in different nation-wide pilot programs and in this way; we have established good and active communication channels. Also, when asked, we have provided our opinions on how to urge forward energy-efficient solutions.*" Oomi business director continues: "*I have been involved in various bodies and given statements regarding solar power. I have met politicians, members of parliament, prime minister, and I have been informing the state treasury. Regardless, change is very slow.*" The CEO of Infinited Fiber believes that by communication the firm can improve its position, and explains: "*We have good connections to ministers in Finland and in members of EU parliament, to Finnish government and Business Finland, however, we do not have the resources to use them in lobbying. We are members in industry organizations, for example in Fashion for Good, which was established by brands to promote sustainable technologies*." Oomi business director concludes: "*Legislation related to buildings with several flats is changing very slowly. One reason might relate to the fact that energy distribution in Finland is a monopoly, and this said, the distributors are most unwilling to change this legislation. Electricity distributors consider all changes that may affect this monopoly as a threat. Also, the less energy is being transferred in the grids; the less the state collects the taxes on electricity distribution.*" It is visible from this discussion that for the industrial firms operating in the energy sector, sociopolitical legitimacy and regulative compliance have been a visible force in the journey towards sustainability.

Both case firms in the clothing business agree that there is no government-level funding available to support sustainable businesses, the CEO of Infinited Fiber notes, "*For our industry, there are no direct subsidies*," and in a similar vein, when discussing whether public support systems are present, the CEO of TODG notes: "*Not that I am aware of.*" These findings reveal that the lack of incentives in the form of subsidies as well as less exposure to environment-specific regulative scrutiny make sociopolitical legitimacy somewhat less important for these firms.

In some occasions, regulations may even be contradictory, and the business director in Oomi notes that rules and regulations may in some cases be conflicting: "*In some communes, their departments of maintenance and building operate in different ways; some of them*

have put lots of efforts to monitor the solar power installations. They do take responsibility but send invoices of their work. In my opinion, it is a question of legality, why may different cities have so diverse practices in these issues. In some cities, house owners may install solar power panels without any bureaucracy; in some other city they need to file a bunch of papers and pay hundreds of euros. Bureaucracy slows down our sales. Things need to be taken care of in order to start installations." Väre leading specialist has made the same observations regarding the conflicting requirements from different stakeholders: "*Rules regarding house building and maintenance vary between cities. To get a solar panel installed, whereas in some cities no action is required; some cities require that house owners file in an announcement, some other cities even ask for blueprints. All these have an influence on how easy customers perceive the process. Besides, the safety regulations regarding fire prevention differ between cities*." These deviations cause some uncertainty regarding how the companies might respond in the correct way.

4.4. Cognitive legitimacy, role of consumers, and their lifestyles

Energy and clothing are quite diverse industries in their nature; presumably, the end consumers and their lifestyles are different. Regarding the solar power panel and electric car charging station household customers, "*In general, house owners are our premier target group. Into a house, a solar panel is easy to mount; a solar panel is an economical and a smart solution. In many cases, owners often also come with values regarding climate change, so it is not always solely an economic decision*," notes the leading specialist in Väre. When discussing if the share of the environmentally-conscious customers has increased, he states that "*It [solar panels] is always a big investment, so the economic consideration is always somewhat present, but as public discussions on climate change have increased, also the role of making a climate action has become more apparent. In this customer segment, we can see the environmental responsibility; customers asking about the electric car charging stations already have, or at least are considering, also the solar power solution. Quite often, these solutions go hand in hand*."

Väre and Oomi are both not only electricity brokers, but they also sell sustainable energy solutions, that is, solar panels and electric car charging stations. Leading specialist in Väre explains: "*I am not directly involved in the marketing. Yet, I think that in some degree, marketing takes into consideration those people who are concerned about climate change, ecological issues and hence, solar power.*" He continues: "*We have promoted renewable energy in many ways, for example in the past; we arranged a concert in which the audience was producing the needed electricity by paddling exercise bikes.*"

Oomi business director notes when discussing consumers that "*Households with their own houses are quite a large segment. Over the years, we have studied … and we still think that solar power purchase decisions relate largely to age … age is the dominant factor. In most cases, buyers are people with wealth. These people invest in targets with a good return on capital*." Oomi business director adds, "*In fact, there are many […] young builders of new houses, and then there is a large group of customers who are close to be retired or have already retired and have wealth, which they are willing to invest in their living. Solar power brings around a five to ten percent return on investment, such return is difficult to gain from other investment targets. Solar power makes electricity bills smaller and sales of excess electricity bring additional incomes. Quite a many of these customers are also concerned about climate change, often there are more than just one factor affecting the purchase. Those who invest in solar power solely because of environmental issues are rare, and such strongly ideological people often do not live in their own houses*." When discussing if the same households that invest in solar power also buy electric car charging stations, Oomi business director thinks out loud: "*There is some correlation. In many cases, people considering solar power have bought an electric car or are about to buy one. Electric moving and solar power, these customers belong to the same target group*." When asked if the firm is considering packaging the electric car charging and solar power solutions, he notes: "*In some degree, in the future probably even more*." Even though Oomi recognizes house owners as a main segment in the private sector, their marketing actions are targeted mainly to the business customers: "*Until now, we have not been focusing that much on the house owners; we have been looking for growth from business customers. Their need for electricity is that obvious. On the other hand, it seems that house owners are more and more realizing that it is economically wise to produce and sell electricity to the grid*," Oomi business director considers.

The situation is a bit different in the business customer segment, as the Oomi business director states that "*Regarding business customers, many promote sustainability, but investments need to be profitable and easy. Solar power station installations are easy. It is the three things, easiness, profitability, and sustainability. Some other investments in sustainability are not profitable. Some other energy investments are not easy and the returns on investments are difficult to measure. Regarding solar power, measurement is easy. Just put the panels on the rooftop and have a glance at the electricity meter, how much less you have been consuming."* In a similar vein, Väre leading specialist continues: *"Regarding our B2B customers, they may come with different reasons. Discussions with firm managers have revealed that their customers might require that the electricity be produced ecologically, using solar power. Firm's image, how green they wish to appear to their customers, is one reason, and in this respect, solar panels at the rooftop might create a positive image of the firm. Also, in some firms, the management has decided to acquire some proportion of electricity using solar power."*

The two case firms in the clothing industry are more cautious what comes to end users' motives. The Infinited Fiber CEO bluntly argues that big brands' end customers seem to be less environmentally conscious: *"In studies, nine out of ten millennials state that they are willing to buy environmentally friendly products, this ratio is not realized in shops. To me, this is following a three-step model. First, as a consumer, you observe that you should change your behavior. Second, you announce that you change your behavior. Third, you really act and start changing your buying behavior. One reason for this may be the fact that such [environmentally friendly] products are not available enough."* This is due to the industry size, as he explains further: *"This industry is surprisingly consolidated when considering the cellulose fiber manufacturers. In the whole world, there are three main players. One of them has branded itself as an environmentally friendly manufacturer, and they are doing a good job in this field. Their technology does not allow the use of waste, and surprisingly, they have been the slowest to adapt new technologies. The other two, which earlier had no [environmentally friendly] solutions, have been very active. Yet, investments are big and require capital."* However, as mentioned earlier, Infinited fiber's customers are big fashion brands, and in this respect, the CEO continues: *"Our focus is solely in big brands, to get them to believe. We have been collaborating with these brands, and together we have done R&D in manufacturing wires, fabrics, and products to get them convinced that the product meets their quality criteria and their consumers' expectations. We have succeeded in convincing them that the product is as good if it was manufactured using virgin fiber or ours. For example, Maisie Williams, we got her only because H&M is our customer. H&M has a huge organization and is capable of scouting ambassadors […] Maisie Williams is now our true fan and would like to introduce her own bag collection made of our fiber. Now, with Maisie Williams, we can continue without H&M, but in the beginning, for a new, small and unknown firm to approach for example Kim Kardashian, it is almost*

impossible to succeed."

In a similar vein, the TODG CEO explains: *"Brands are about trust. You cannot build a brand unless you gain people's trust. Firms can gain this trust only by telling the truth. We tell our story; we open up our story, why our brand exists, we tell people what is important for them, and we stick with the story. Not what we imagine that they would like to hear. We acted accordingly, and then, in 2017, a miracle started to happen. Responsibility in respect that we use plastic waste as a raw material is important, but it is only one piece in the whole business. A hundred percent of our customers are concerned about the environment, but they do not make noise on that. This is a major difference. Our eldest customer is over 90, he has never had any environment-related ethos, he said that he had turned 90 until he found underpants he could use […] our customers know that they have made responsible purchase decisions this has not been the reason to buy. They believe that only big business can make the change, to collect all the waste from seas."* Hence, cognitive legitimacy emanating from linking to consumer's lifestyles was visible in one way or another in these three case firms.

Contrary to the other three case firms, TODG is not segmenting their customers, the CEO explains: *"We do not have segments. A story does not need target groups or segments. We tell a story; we open up a honey pot and see what kind of flies start gathering around. People who like the story keep coming; they know what we represent and who we are. We need to trust that our production chain is responsible, we need to know that we make long-lasting underpants, you do not need to replace them every two months because they have holes."* He continues, *"We do not talk about our customers; we talk about people."*

When asking if TODG is capitalizing their customers' environmental awareness in their marketing, the CEO points out: *"We are not harnessing sea pollution in our communication. In our advertisements in the print media, we have twice mentioned our ethos, yet in communication, we do not hide it."* When discussing why not communicating the responsibility, the CEO knocks out such an idea, *"Nature protection and ecological lifestyle, and they have such a bad echo in people's minds, you cannot achieve anything."* Moreover, the CEO mentions that *"Normal people would immediately release safety locks from their guns. People do not want to hear [pathetic statements] how firms save the world, they just need to trust that this is how the firm operates. We cannot go and shout out how responsible we are, we need to do it, we need to be it, we need to open it up, and we need to open up our production process. People do not believe it if we say it. They need to find it out by themselves. Only three balls matter, we trust that people find out what it means […] only three balls matter, you have two yourself and the third one on which you live, you need to take care of all of them. People do not take the responsibility of the environment; they expect us to take care of the environment so that they can consume responsibly."* This view is also important to consider as too generalist and rather naïve perspectives on the role of consumer lifestyle and cognitive legitimacy can sometimes take away tough realities of running a business successfully in a competitive marketplace.

5. Discussion and conclusion

All four case firms consider environmental sustainability as one of the main drivers in their businesses. Väre and Oomi have identical backgrounds and product portfolios; their main revenues come from electricity broking, in which the sales of the electricity produced using green energy sources cut off peaks of most polluting production. However, both firms agree that wind and solar power are only partial solutions in the energy supply; they produce energy only when the wind is blowing, or the sun is shining. Electricity broking markets are highly competitive in Finland; thus, Väre and Oomi both consider solar power panels and electric car charging stations to play a role in their further growth. For many years, they have been closely following the solar panel markets and have noticed that the demand of solar power panels has quite steadily increased, and at the same time, panels' efficiency has also increased, and their prices have come down. Infinited Fiber had a possibility to use any cellulose-based raw material in its production, yet the firm made a deliberate choice to focus on re-manufacturing waste-based textiles as fiber. With such an environmentally sustainable decision, the firm aspired to become a tempting provider in big clothing brands' eyes. Similarly, as Infinited Fiber, TODG uses waste-based raw material, that is, plastic waste collected from seas, to manufacture men's underwear. However, this ecological sustainable raw material was not the reason for the establishment of TODG; regardless that this aspect has a visible role in the business and in the eyes of the consumers, the firm's main objective is to provide its customers with comfortable and durable underpants. Hence, it was visible that the consumers' cognitive legitimacy and their sustainable lifestyles played a role along with offering the product to them. This is in line with earlier studies, which highlighted similar dynamics (e.g. Randrianasolo, 2020; Uren et al., 2019). It was also visible that all case firms are attempting to integrate environmental, economic, and social elements in their strategies to achieve sustainability in their context, which reaffirms the argument of prior studies focusing on similar topics (e.g. Gouda & Saranga, 2018; Rajesh & Rajendran, 2020).

Infinited Fiber is solely focusing on business customers, that is, big fashion brands, which are making continuous efforts to stand out from competitors. In shaping their brand images, big fashion firms aim to appeal their customers by showing their environmental responsibility in their use of waste-based raw materials. Regardless that recycled raw material is more expensive, at least on a short run as there are not so many genuinely environmentally sustainable products available, fashion firms are able to charge price premium. Väre and Oomi have both business and private household customers. Business customers come with distinct needs and preferences: with solar power they can cut down their energy costs, in some case firms' customers require use of renewable energy, and the use of green energy and solar panels on the rooftop improve firms' brands. Private households' solar panel purchase decisions are less obvious. Private customers are seeking means to cut their energy costs, some customers consider that investment in solar power may also bring abnormal returns. Both firms accept that solar power installations are not always results of making economic considerations, and households' decisions may partly relate to climate change.

TODG is selling men's underpants only to private customers. In doing this, they do not consider that customers purchase products only because they are made of waste-based raw material. The firm believes that people buy products because they are comfortable and durable. Both case firms in the clothing industry are skeptical regarding if people make their buying decisions based on environmental issues. In their opinion, people rather tend to give an impression of being environmentally responsible consumers, yet their actions are not ecological. Infinited Fiber suggests that there are not enough environmentally friendly products available, TODG believes that people buy only goods that meet their needs; they pay a higher price only if they perceive gaining value. Hence, we receive partial support for the notion mentioned by some scholars (e.g. Gregory-Smith et al., 2017; Shao & Ünal, 2019) that environmentally conscious consumers are willing to pay higher for sustainable products if they see some additional value associated with the product.

Depending on the customer segments, public policies seem to

have a role in solar power panel business. Business customers, that is, firms of all sizes, in Finland are often entitled to apply for government's energy subsidies when replacing existing ones with low carbon energy sources. For many firms, this subsidy is a remarkable incentive when shifting from traditional energy sources to solar power. Private households are automatically entitled to deduct part of the solar panel and electric car charging station installation work in their taxation. In solar panels, the share of installation of the total costs is typically quite high; hence, this deduction brings significant monetary benefit for the buyer. The fact that regulations on installing solar power panels differ between cities increases the bureaucracy, increasing related costs and hindering sales. Case firms in the energy sector are also promoting solar power within public bodies by maintaining continuous dialogues with decision-makers and other influencers. Regarding the clothing industry, the European Green Deal program aims to increase the share of recycled textiles, which will most probably increase the demand of waste-based raw material. Thus, it has a positive impact on the two (clothing industry) case firms' further growth, regardless of whether TODG does not consider government or EU level initiatives that are important. Therefore, the importance of public policies at national as well as EU-level is reaffirmed in our findings in the context of sustainability-oriented firms, which is in line with the findings of prior studies (e.g. Dangelico et al., 2017; Krenek et al., 2018).

6. Implications and future research directions

The findings of our study offer both theoretical and managerial implications. A key theoretical implication relates to the important role of cognitive legitimacy for sustainable firms as cognitive legitimacy from their consumers as well as other relevant stakeholders appear to play a very important role. Also, cognitive legitimacy can be more clearly associated with consumers' lifestyle choices of such sustainable firms. Hence, future researchers can probe more in-depth to the specificities of cognitive legitimacy in different industries and contexts and see what kind of different dynamics are associated with it concerning sustainable firms. This theoretical implication is also closely related to the managerial implication, where managers of sustainable firms are recommended to establish an even closer relationship with their consumers, whose lifestyle choices are essential for their firms' success. Even though government regulations and subsidies are important for such firms as they also result in sociopolitical legitimacy, as sustainability is increasingly becoming mainstream, these subsidies will end at some point in the future. Hence, for long-term survival and growth, close linkage with their consumers and potentially co-creation of value for sustainable lifestyles can be a good strategy for such firms.

Our paper does have some limitations as well. Firstly, is it based on case studies of four firms from the Nordic region where interviews are used as the main data source. Hence, the findings are subjective and cannot be easily generalized to other contexts. Despite this, keeping in mind that Nordic region and firms operating there are at the forefront of sustainable businesses, our research offers useful context-specific insights. Secondly, as the data is only collected from service or product providing firms, the discussion on consumer lifestyles is based on their customers' evaluation. Therefore, lack of incorporation of sustainable lifestyle specific views from the customers can be considered another limitation of the current paper. However, our paper does open several avenues for future researchers to explore this new and under-researched topic further. For example, the future studies can collect data from consumers to see how sustainable lifestyles influence their choices concerning industries used in current paper, that is, energy and clothing industries. Such an analysis would perhaps give more specific insights to the role of cognitive legitimacy for sustainable firms. Also, future studies can try to bring elements of culture and cultural differences by undertaking an analysis where the role of cultures is probed in relation to sustainable lifestyles and firms' legitimation strategies. Finally, future studies can undertake similar research in other developed as well as emerging economies to see how the dynamics differ there compared to the Nordic context.

References

Archibald, M. E. (2004). Between isomorphism and market partitioning: How organizational competencies and resources foster cultural and sociopolitical legitimacy and promote organizational survival. In E. Johnson (Ed.), *Legitimacy processes in organizations* (pp. 171–211). Bingley: Emerald Group Publishing Limited.

Banerjee, S. B. (2002). Corporate environmentalism: The construct and its measurement. *Journal of Business Research, 55*(3), 177–191.

Belk, R. (2014). You are what you can access: Sharing and collaborative consumption online. *Journal of Business Research, 67*(8), 1595–1600.

Berrone, P., Fosfuri, A., & Gelabert, L. (2017). Does greenwashing pay off? Understanding the relationship between environmental actions and environmental legitimacy. *Journal of Business Ethics, 144*(2), 363–379. https://doi.org/10.1007/s10551-015-2816-9

Boyd, B., Henning, N., Reyna, E., Wang, D., Welch, M., & Hoffman, A. J. (2017). *Hybrid organizations: New business models for environmental leadership*. Oxon: Routledge.

Brandenburg, M., Govindan, K., Sarkis, J., & Seuring, S. (2014). Quantitative models for sustainable supply chain management: Developments and directions. *European Journal of Operational Research, 233*(2), 299–312.

Buerke, A., Straatmann, T., Lin-Hi, N., & Müller, K. (2017). Consumer awareness and sustainability-focused value orientation as motivating factors of responsible consumer behavior. *Review of Managerial Science, 11*(4), 959–991.

Carley, M., & Spapens, P. (2017). *Sharing the world: Sustainable living and global equity in the 21st century*. Oxon: Routledge.

Cramer, J. (2005). Company learning about corporate social responsibility. *Business Strategy and the Environment, 14*(4), 255–266.

Dangelico, R. M., Pujari, D., & Pontrandolfo, P. (2017). Green product innovation in manufacturing firms: A sustainability-oriented dynamic capability perspective. *Business Strategy and the Environment, 26*(4), 490–506.

De Haen, H., & Réquillart, V. (2014). Linkages between sustainable consumption and sustainable production: Some suggestions for foresight work. *Food Security, 6*(1), 87–100.

De Vries, G., Terwel, B. W., Ellemers, N., & Daamen, D. D. (2015). Sustainability or profitability? How communicated motives for environmental policy affect public perceptions of corporate greenwashing. *Corporate Social Responsibility and Environmental Management, 22*(3), 142–154.

Deephouse, D. L., Bundy, J., Tost, L. P., & Suchman, M. C. (2017). Organizational legitimacy: Six key questions. In Greendwood, et al. (Eds.), *The SAGE handbook of organizational institutionalism* (pp. 27–54). Thousand Oaks, CA: Sage.

Díez-de-Castro, E., Peris-Ortiz, M., & Díez-Martín, F. (2018). Criteria for evaluating the organizational legitimacy: A typology for legitimacy jungle. In *Organizational legitimacy* (pp. 1–21). Cham: Springer.

Dow, K., & Downing, T. E. (2016). *The atlas of climate change: Mapping the world's greatest challenge*. Berkley, CA: University of California Press.

Dubois, A., & Gadde, L.-E. (2002). Systematic combining: An abductive approach to case research. *Journal of Business Research, 55*(7), 553–560.

Easterby-Smith, M., Thorpe, R., & Jackson, P. R. (2015). *Management and business research* (5th ed.). London: Sage Publications Ltd.

Fanning, A. L., & O'Neill, D. W. (2019). The Wellbeing–Consumption paradox: Happiness, health, income, and carbon emissions in growing versus non-growing economies. *Journal of Cleaner Production, 212*, 810–821.

Gast, J., Gundolf, K., & Cesinger, B. (2017). Doing business in a green way: A systematic review of the ecological sustainability entrepreneurship literature and future research directions. *Journal of Cleaner Production, 147*, 44–56.

Gatersleben, B., Murtagh, N., Cherry, M., & Watkins, M. (2019). Moral, wasteful, frugal, or thrifty? Identifying consumer identities to understand and manage pro-environmental behavior. *Environment and Behavior, 51*(1), 24–49.

Gatersleben, B., White, E., Abrahamse, W., Jackson, T., & Uzzell, D. (2012). Values and sustainable lifestyles. In *Transforming markets in the built environment* (pp. 37–50). Oxon: Routledge.

Gaur, A., & Kumar, M. (2018). A systematic approach to conducting review studies: An assessment of content analysis in 25 years of IB research. *Journal of World Business, 53*(2), 280–289.

Ge, B., Jiang, D., Gao, Y., & Tsai, S. B. (2016). The influence of legitimacy on a proactive green orientation and green performance: A study based on transitional economy scenarios in China. *Sustainability, 8*(12), 1344.

Gouda, S. K., & Saranga, H. (2018). Sustainable supply chains for supply chain sustainability: Impact of sustainability efforts on supply chain risk. *International Journal of Production Research, 56*(17), 5820–5835.

Greenwood, R., Oliver, C., Lawrence, T. B., & Meyer, R. E. (2017). *The Sage handbook of organizational institutionalism*. Thousand Oaks, CA: Sage.
Gregory-Smith, D., Manika, D., & Demirel, P. (2017). Green intentions under the blue flag: Exploring differences in EU consumers' willingness to pay more for environmentally-friendly products. *Business Ethics: A European Review, 26*(3), 205–222.
Hedlund-de Witt, A., De Boer, J., & Boersema, J. J. (2014). Exploring inner and outer worlds: A quantitative study of worldviews, environmental attitudes, and sustainable lifestyles. *Journal of Environmental Psychology, 37*, 40–54.
Hoff, J. (2017). The green 'heavyweights': The climate policies of the Nordic countries. In *The routledge handbook of scandinavian politics* (pp. 49–65). Oxon: Routledge.
Howard-Grenville, J., Davis, G. F., Dyllick, T., Miller, C. C., Thau, S., & Tsui, A. S. (2019). Sustainable development for a better world: Contributions of leadership, management, and organizations. *Academy of Management Discoveries, 5*(4), 355–366.
Howell, R. A. (2013). It's not (just)"the environment, stupid!" Values, motivations, and routes to engagement of people adopting lower-carbon lifestyles. *Global Environmental Change, 23*(1), 281–290.
Hsieh, H. F., & Shannon, S. E. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research, 15*(9), 1277–1288.
Hunt, C. S., & Aldrich, H. E. (1996). Why even Rodney Dangerfield has a home page: Legitimizing the world wide web as a medium. In *for commercial endeavours, Annual meeting of the Academy of Management*. Cincinnati, Ohio: Academy of Management.
Iannuzzi, A. (2017). *Greener products: The making and marketing of sustainable brands*. London: CRC Press.
Jones, C. A., & Levy, D. L. (2007). North American business strategies towards climate change. *European Management Journal, 25*(6), 428–440.
Jordan, A., Huitema, D., Van Asselt, H., & Forster, J. (2018). *Governing climate change: Polycentricity in action?* Cambridge: Cambridge University Press.
Kassarjian, H. H. (1977). Content analysis in consumer research. *Journal of Consumer Research, 4*(1), 8–18.
Kasser, T. (2016). Materialistic values and goals. *Annual Review of Psychology, 67*, 489–514.
Kolk, A., & Pinkse, J. (2004). Market strategies for climate change. *European Management Journal, 22*(3), 304–314.
Kovács, G., & Spens, K. M. (2005). Abductive reasoning in logistics research. *International Journal of Physical Distribution & Logistics Management, 35*(2), 132–144.
Krenek, A., Sommer, M., & Schratzenstaller, M. (2018). *Sustainability-oriented future EU funding: A European border carbon adjustment*. WIFO working paper. https://www.wifo.ac.at/jart/prj3/wifo/resources/person_dokument/person_dokument.jart?publikationsid=61931&mime_type=application/pdf.
López, L. A., Cadarso, M. A., Zafrilla, J., & Arce, G. (2019). The carbon footprint of the US multinationals' foreign affiliates. *Nature Communications, 10*(1), 1–11.
Menon, A., & Menon, A. (1997). Enviropreneurial marketing strategy: The emergence of corporate environmentalism as market strategy. *Journal of Marketing, 61*(1), 51–67.
Namagembe, S., Sridharan, R., & Ryan, S. (2016). Green supply chain management practice adoption in Ugandan SME manufacturing firms: The role of enviropreneurial orientation. *World Journal of Science. Technology and Sustainable Development, 13*(3), 154–173.
Pajunen, N., Aarnio, T., Heiskanen, K., & Watkins, G. (2016). Value in sustainability: The process industry perspective. *International Journal of Sustainable Engineering, 9*(1), 59–72.
Partzsch, L., Zander, M., & Robinson, H. (2019). Cotton certification in Sub-Saharan Africa: Promotion of environmental sustainability or greenwashing? *Global Environmental Change, 57*, 101924.
Porter, M. E., & Van der Linde, C. (1995). Toward a new conception of the environment-competitiveness relationship. *The Journal of Economic Perspectives, 9*(4), 97–118.
Rajesh, R., & Rajendran, C. (2020). Relating environmental, social, and governance scores and sustainability performances of firms: An empirical analysis. *Business Strategy and the Environment, 29*(3), 1247–1267.
Randrianasolo, A. (2020). Employing enviropreneurial marketing strategies to gain legitimacy. *Journal of Global Marketing*. https://doi.org/10.1080/08911762.2020.1820652. Latest articles available online at.
Randrianasolo, A. A., & Arnold, M. (2020). Consumer legitimacy: Conceptualization and measurement scales. *Journal of Consumer Marketing, 37*(4), 385–397.
Reid, E. M., & Toffel, M. W. (2009). Responding to public and private politics: Corporate disclosure of climate change strategies. *Strategic Management Journal, 30*(11), 1157–1178.
Santamaria, L., Escobar-Tello, C., & Ross, T. (2016). Switch the channel: Using cultural codes for designing and positioning sustainable products and services for mainstream audiences. *Journal of Cleaner Production, 123*, 16–27.
Saunders, M., Lewis, P., & Thornhill, A. (2012). *Research methods for business students* (6th ed.). Essex: Pearson Education Limited.
Scott, W. R. (2013). *Institutions and organizations: Ideas, interests, and identities*. Thousand Oaks, CA: Sage publications.
Scott, J. T. (2017). *The sustainable business: A practitioner's guide to achieving long-term profitability and competitiveness*. New York: Routledge.
Shao, J., & Ünal, E. (2019). What do consumers value more in green purchasing? Assessing the sustainability practices from demand side of business. *Journal of Cleaner Production, 209*, 1473–1483.
Shepherd, D. A., & Zacharakis, A. (2003). A new venture's cognitive legitimacy: An assessment by customers. *Journal of Small Business Management, 41*(2), 148–167.
Singh, K., Saeed, M., & Bertsch, A. (2012). Ethical response behavior: A study of Indian consumers. *Journal of Strategic Innovation and Sustainability, 7*(3), 16–34.
Soewarno, N., Tjahjadi, B., & Fithrianti, F. (2019). Green innovation strategy and green innovation: The roles of green organizational identity and environmental organizational legitimacy. *Management Decision*.
Stern, P. C., & Wolske, K. S. (2017). Limiting climate change: what's most worth doing? *Environmental Research Letters, 12*(9), Article 091001.
Strand, R., Freeman, R. E., & Hockerts, K. (2015). Corporate social responsibility and sustainability in Scandinavia: An overview. *Journal of Business Ethics, 127*(1), 1–15.
Suchman, M. C. (1995). Managing legitimacy: Strategic and institutional approaches. *Academy of Management Review, 20*, 571–610.
Sullivan, R. (2017). *Corporate responses to climate change: Achieving emissions reductions through regulation, self-regulation and economic incentives*. Oxon: Routledge.
Sullivan, R., & Gouldson, A. (2017). The governance of corporate responses to climate change: An international comparison. *Business Strategy and the Environment, 26*(4), 413–425.
Su, J., Watchravesringkan, K. T., Zhou, J., & Gil, M. (2019). *Sustainable clothing: Perspectives from US and Chinese young millennials*. International Journal of Retail & Distribution Management.
Taylor, S., Fisher, D., & Dufresne, R. (2002). The aesthetics of management storytelling: A key to organizational learning. *Management Learning, 33*(3), 313–330.
Thomas, T. E., & Lamm, E. (2012). Legitimacy and organizational sustainability. *Journal of Business Ethics, 110*(2), 191–203.
Turker, D., & Altuntas, C. (2014). Sustainable supply chain management in the fast fashion industry: An analysis of corporate reports. *European Management Journal, 32*(5), 837–849.
Ulvila, K. M. (2018). Good for nature-good for you"?: Values and sustainable food consumption-promoting sustainably produced food products to Finnish consumers. *Jyväskylä studies in business and economics*. available online at https://jyx.jyu.fi/bitstream/handle/123456789/57882/978-951-39-7432-9_vaitos25052018.pdf?sequence=1&isAllowed=y.
Uren, H. V., Dzidic, P. L., Roberts, L. D., Leviston, Z., & Bishop, B. J. (2019). Green-tinted glasses: How do pro-environmental citizens conceptualize environmental sustainability? *Environmental Communication, 13*(3), 395–411.
Veal, G. J., & Mouzas, S. (2011). Changing the rules of the game: Business responses to new regulation. *Industrial Marketing Management, 40*(2), 290–300.
Weaver, P., Jansen, L., Van Grootveld, G., Van Spiegel, E., & Vergragt, P. (2017). *Sustainable technology development*. New York: Routledge.
Wilson, M. C. (2013). A critical review of environmental sustainability reporting in the consumer goods industry: Greenwashing or good business. *Journal of Management and Sustainability, 3*(4), 1–13.
Zelditch, M., Jr. (2018). Legitimacy theory. In P. J. Burke (Ed.), *Contemporary social psychological theories* (pp. 340–371). Santa Clara, CA: Stanford University Press.
Zimmerman, M. A., & Zeitz, G. J. (2002). Beyond survival: Achieving new venture growth by building legitimacy. *Academy of Management Review, 27*, 414–431.
Zsóka, Á., Szerényi, Z. M., Széchy, A., & Kocsis, T. (2013). Greening due to environmental education? Environmental knowledge, attitudes, consumer behavior and everyday pro-environmental activities of Hungarian high school and university students. *Journal of Cleaner Production, 48*, 126–138.