Many social enterprises are taking positive action in terms of environmental sustainability and climate change. Does the sector provide lessons for SMEs more widely? In this paper, we examine what lessons we can learn from the study of social enterprises and environmental entrepreneurship that can help SMEs and entrepreneurs tackle environmental sustainability issues. We highlight how the market failures at the root of environmental problems may offer entrepreneurial opportunities for creating sustainable businesses. We present an overview of the possibilities for sustainable business models, as well as the generally recognised challenges that come with sustainable organising. We conclude by identifying needs for future research as well as providing policy recommendations to encourage the integration of social and environmental goals in business.

Background

Environmental degradation and climate change are commonly agreed to be the most pervasive and ‘wicked’ problems of this day and age. A key challenge for the 21st century is to meet humanity’s needs without exhausting the resources of the planet (Raworth, 2017). CO₂ emissions, ocean acidification and reduced biodiversity are some of the problems that The United Nations have agreed to tackle through the 2030 agenda for sustainable development (UN 2015). "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (WCED, 1987). As society is becoming increasingly aware of the vast environmental problems facing us globally, more and more businesses are acting to reduce their environmental impact. Yet there is still much more that needs to be done to achieve sustainability goals.
Evidence

The business case for sustainability

Often businesses are seen to be at the heart of causing environmental problems as they are characterised as unrestrainedly following their own self-interest without paying attention to the impact of their actions on the environment. This view is combined with the notion that there is a trade-off between profits and the environment (Lenox and York, 2012). However, academics researching environmental entrepreneurship argue that market forces can also be a solution to some of the environmental problems we face today. Some of the same market imperfections that lead to environmental degradation can be sources of profit-making opportunities for entrepreneurs to improve environmental outcomes (Cohen and Winn, 2007; Dean and McMullen, 2007). This can result in ‘win-win’ scenarios whereby the pursuit of profit by self-interested entrepreneurs can reduce or eliminate environmental problems.

Market imperfections, which can often cause environmental problems, occur when free markets alone are not able to ensure the optimal allocation of resources in society. This can lead to a loss of economic or social welfare. Environmental economics has examined a range of different market imperfections which can lead to environmental degradation (see Table 1 for a full overview).

Table 1: How market imperfections can both cause environmental problems and be a source of entrepreneurial opportunities.

<table>
<thead>
<tr>
<th>Market imperfection</th>
<th>Examples of environmental problems caused</th>
<th>Types of opportunities available for environmental entrepreneurs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inefficient firms: firms do not use all their resources efficiently (Cohen &amp; Winn, 2007)</td>
<td>Creating aluminium using virgin ore uses much more energy and creates more waste than recycling aluminium plus vast amounts of aluminium are thrown away each year.</td>
<td>Opportunities to increase efficiency and reduce pressure on the environment by increasing the productivity of natural resources (making more from less), including greater recycling.</td>
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<tr>
<td>Public goods: are available for all to consume whether or not they have paid for consumption (non-excludability). This leads to incentives for everyone to use as much of this resource as possible and can lead to the tragedy of the commons where resources become depleted. (Dean &amp; McMullen, 2007)</td>
<td>Overfishing because international waters are not owned by anyone and thus commercial fishing fleets harvest the fish as quickly as possible rather than considering conserving breeding stocks and maximising fishing over time.</td>
<td>Entrepreneurs can develop property rights for public goods, making them excludable. This may involve developing political mechanisms such as developing property rights such as fishing quotas which entrepreneurs may then use or enforce.</td>
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<tr>
<td>Externalities: negative externalities exist when a firm’s actions create a cost to third parties who aren’t receiving equal benefits</td>
<td>Factories produce air pollution which reduces the air quality and causes harm for those living nearby and these people are not</td>
<td>Substitute current practices with ones that can minimise, nullify the impact on the environment or even lead to improvement. Or</td>
</tr>
<tr>
<td>(Cohen &amp; Winn, 2007; Dean &amp; McMullen, 2007)</td>
<td>compensated for this harm. Often not compensated because the costs of seeking compensation and going through the legal system are too high.</td>
<td>entrepreneurs may find ways to reduce the transaction costs to allow those who are being harmed to be compensated. For example, carbon credit exchanges allow those with low emissions to sell to those with higher ones.</td>
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<tr>
<td>Flawed pricing mechanisms: prices of the market do not represent the value of the good/service to society (Cohen &amp; Winn, 2007)</td>
<td>No price is given to valuable ecosystems services such as clean air, water, biodiversity. Or finite natural resources such as helium are unpriced and treated as if they have an infinite supply.</td>
<td>Increasing recognition of these flawed prices is leading governments to implement policies to change market prices e.g. farmers paid for biodiversity, taxes on pollution. This changes the prices of natural resources and makes renewable alternatives more attractive, leading to opportunities for entrepreneurs to create renewable resources.</td>
</tr>
<tr>
<td>Monopoly power: an incumbent with a monopoly position are not subject to pressures of competition and so may be less likely to adopt new technologies and practices (Dean &amp; McMullen, 2007)</td>
<td>This can lead to environmental degradation if the monopoly power doesn’t adapt cleaner and more efficient technologies and production processes. This is often a criticism of electricity utilities being adopters of renewable energy production.</td>
<td>Entrepreneurs can help break monopolies by entering new markets and then acting in a more sustainable manner. This is challenging as the entrepreneurs need to overcome barriers to entry which may be due to regulation or natural because of the economies of scale. An example of such monopoly breaking is small scale producers of renewable energy.</td>
</tr>
<tr>
<td>Imperfect information: in neoclassical economic theory the assumption is that everyone omniscient and knows everything about the choices available in the market. In reality, of course this is not true and we are ignorant about much (Cohen &amp; Winn, 2007; Dean &amp; McMullen, 2007)</td>
<td>Consumers and producers are ignorant of most of the environmental consequences of their choices e.g. consumers are unaware of the rates of return for increasing the energy efficiency of their homes or the environmental consequences of the clothes they buy. This means that consumers and firms are unaware when sustainable choices offer better value than the unsustainable ones and/or if they are motivated to buy sustainably are unsure what the sustainable choice would be.</td>
<td>There are opportunities for entrepreneurs to reduce the information gap by and inform consumers and producers of the environmental impact of their choices and also the possible greater economic benefits of sustainable products/services.</td>
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</table>
One example of a market failure is what economists call ‘negative externalities’. These occur when the production or consumption of a product or service causes harm to a third party. For example, the fast fashion industry produces cheap clothes to meet the demand for ever changing trends. However, the price of this fashion doesn’t include the social and environmental harm caused in the production process. Globally, the fashion industry currently accounts for 20% of industrial water pollution from treating and dying clothes and 8 – 10% of CO₂ emissions and the impacts are rising as consumers wear their clothes fewer times before throwing them away (Niinimäki et al. 2020). In addition, the fashion industry is one of the major industries associated with modern slavery, with estimates that around 41 million garment workers worldwide are affected (Bhakoo & Meshram, 2021).

Nevertheless, a growing demand and concern for responsible fashion as well as regulatory incentives from governments have created opportunities for sustainable entrepreneurs. Sustainable fashion entrepreneurs are working with recycled fabrics, circularity, and waste-reducing technologies (Khandual & Pradhan, 2019). These entrepreneurs are also conscious of social outcomes as they locate their production facilities in countries with strict labour market regulation or they invest in closely supervising the production chain in developing economies.

**Social enterprise and sustainability**

Sustainable fashion enterprises are clear examples of how entrepreneurs can turn environmental problems into opportunities. There is a literature outlining the ‘business case’ for sustainability and win-win scenarios where profit goes hand in hand with sustainability (Porter and van der Linde 1995; Jaffe, Newell and Stavins 2005; Ambec and Lanoie 2008). However, more recently scholars have started to observe a subset of business that goes beyond the principle of minimising harm to the environment. These enterprises make it their core business to regenerate and restore the natural environment, and they are often founded on the principle of ‘circularity’. Circularity is where the economy is designed to be regenerative, where resource inputs and waste are minimised, and ideally a closed resource loop is created so that what is waste for some part of the economy becomes a productive input for another (Ellen MacArthur Foundation, 2013; Geissdoerfer et al. 2017; Geng and Doberstein, 2008). Inputs and waste are also reduced through long-lasting design, maintenance, repair, reuse, and refurbishing (Geissdoerfer et al. 2017).

Entrepreneurs that found environmentally restorative and regenerative businesses are often not motivated by ‘the business case’ but are driven by a desire to contribute directly to sustainable development (Parrish, 2010) and these businesses can be understood as social enterprises. Social enterprises operate according to a dual mission; they use business strategies to create economic value, which is a key condition for these enterprises to survive, yet their primary concern is their social and/or environmental mission (Dacin et al. 2011; Mair and Marti, 2006; Zahra et al. 2009). The social entrepreneurship literature tends to emphasise social goals and social needs driving social enterprises, and this can also include environmental needs. In fact, a recent report by the United Nations stresses the interconnectivity of social and environmental development goals in a sustainable system (United Nations, 2018).

How widespread is the phenomenon of enterprises where environmental goals are a part of core business? From previous research we have learned that around 9 percent of the UK small business population are social enterprises if we follow a strict definition (Stephan, Braidford, Folmer, Lomax and Hart, 2017). This strict definition includes criteria where the: i) enterprise has at least 50 percent income from trading; ii) has social/environmental goals of greater or equal concern compared to financial goals, and
iii) has rules in place that determine the use of surplus/profit to further social/environmental goals. Another research study that surveyed around one thousand social enterprises across eight European countries found that around 11 percent of social enterprises indicate their main activity to be in the environmental sector (SEFORIS 2015). The proportion of social enterprises that have a core focus on environmental goals is, therefore, not negligible. Furthermore, others may pursue environmental goals alongside their core social goals. Still, these social enterprises constitute a small share of the wider business population.

**Sustainable business models**

To develop businesses that provide solutions to environmental challenges requires huge changes to existing standard business models – the ways that businesses create, deliver and capture value (Osterwalder and Pignuer, 2010: 14). There is a growing body of research on sustainable business models and how firms can innovate their business models to improve sustainability. Schaltegger et al. (2016) explain that “A business model for sustainability helps describing, analysing, managing, and communicating (i) a company’s sustainable value proposition to its customers, and all other stakeholders, (ii) how it creates and delivers this value, (iii) and how it captures economic value while maintaining or regenerating natural, social, and economic capital beyond its organisational boundaries.” To be environmentally sustainable, the business model needs to provide measurable environmental value alongside the customer value it creates and take a long-term perspective on value creation (Boons and Ludeke-Fruend, 2013; Geissdorfer et al. 2018). This requires a more complex understanding of value than in a for-profit business, as a sustainable business is tending to multiple stakeholders and there needs to be a balance between customer and environmental needs (Ludeke-Freund et al. 2017).

Much of the sustainable business model literature has looked at how existing business models can be innovated to become sustainable. Bocken et al. (2014) reviewed the existing research and found that there are three main bases for making a business model more sustainable (technological, social and organisational), each which includes a range of different approaches to innovation. This is summarised in Table 2 below.

For more information and examples of businesses employing these business model innovations visit this website: [https://www.vlaanderen-circulair.be/bmix](https://www.vlaanderen-circulair.be/bmix)

There have also been several tools developed to help organisations create sustainable business models, often built on the hugely popular ‘business model canvas’ (Osterwalder and Pigneur 2010) then adding in elements to ensure that both social and environmental impacts are considered. One such tool is the Flourishing Business Canvas, a visual framework which allows businesses to consider the triple bottom line: economic, social and environmental value creation (for more information see here: [http://flourishingbusiness.org/the-toolkit-flourishing-business-canvas/](http://flourishingbusiness.org/the-toolkit-flourishing-business-canvas/)). Another tool is the triple layered business model canvas which adds two further layers to the business model canvas (Joyce and Paquin, 2016). One environmental layer considering the impact of the product/service over its lifecycle, the other a social layer which takes a stakeholder management approach to consider the social impacts of the business.
Table 2: Summary of Bocken et al.’s (2014) typology of sustainable business model innovations

<table>
<thead>
<tr>
<th>Innovation category</th>
<th>Innovation</th>
<th>Description of innovation</th>
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</thead>
<tbody>
<tr>
<td>Technological innovations</td>
<td>Optimisation – maximising material and energy efficiency</td>
<td>This means do more with fewer resources, generating less waste and emissions e.g. reducing materials in products and packaging or implementing cleaner production processes</td>
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<tr>
<td></td>
<td>Circularity – creating value from what is currently waste</td>
<td>Waste is eliminated as it becomes a resource to be used in production. This also reduces the need for virgin resources and limits waste products.</td>
</tr>
<tr>
<td></td>
<td>Substitution with renewables or natural processes</td>
<td>This reduces use of finite resources such as oil and the pollution and waste often associated with them.</td>
</tr>
<tr>
<td>Social innovations</td>
<td>Deliver functionality rather than ownership</td>
<td>This leads to a shift from customers owning products to being provided with a service. This breaks the link between profit and product volume, makes the manufacturer more attentive to the lifespan of the products and their repairability as they become responsible for this.</td>
</tr>
<tr>
<td></td>
<td>Adopt a stewardship role</td>
<td>Examples are certification schemes such as the Marine Stewardship Council and Fair trade which require proactive engagement with stakeholders to ensure their long-term well-being and that of the environment.</td>
</tr>
<tr>
<td></td>
<td>Encourage sufficiency</td>
<td>The idea is to encourage slow consumption through quality products that last rather than persuade customers to consume more.</td>
</tr>
<tr>
<td>Organisational innovations</td>
<td>Repurpose for society/the environment</td>
<td>Have an organisational form such as not-for-profit, cooperative, or social enterprise to put the delivery of social and environmental benefits at the heart of the enterprise.</td>
</tr>
<tr>
<td></td>
<td>Co-creation to develop scale up solutions</td>
<td>Work with others to scale sustainable solutions as partnership brings resources together an enables faster learning.</td>
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</tbody>
</table>

The challenges of sustainable entrepreneurship

One of the reasons why social and environmental entrepreneurship is still relatively ‘rare’, is because there are significant challenges tied to employing a sustainable business model. From research on social enterprises, we can learn what some of these challenges are. Table 3 outlines three characteristics of social enterprises as well as the challenges and implications tied to them. The table also lists some strategies or solutions that research has suggested in tackling these challenges. This table is not exhaustive but represents current debates in social enterprise literature.

Focusing on potential strategies to deal with challenges we can observe that overall, several studies have stressed the importance of collaboration and stakeholder management. Strategies for dealing with ‘hybrid tensions’ include creating inclusive governance boards with members representing both the social and financial mission (Ebrahim, Battilana and Mair, 2014). Others have stressed that instead of seeing social goals and financial goals as trade-offs, we should treat this ‘double bottom-line’ as an advantage. For instance, through complexity reduction (frugal innovation) and market creation for sustainably produced products and services (Hockerts, 2015). Strategies for enhancing ‘legitimacy’ include collaborating with high-status organisations, as well as
joining existing networks of organisations to gain access to resources (Folmer, Nederveen and Schutjens, 2018). Finally, strategies for ‘impact measurement’ include working alongside a clear framework of social change as well as co-creation of these frameworks with stakeholders such as funding organisations (Ebrahim and Rangan, 2014).

Table 3: Common challenges of social enterprises

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Implications</th>
<th>Potential solutions / strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hybridity - balancing social and/or</td>
<td>Prioritising financial goals may lead to ‘mission drift’, leading the business</td>
<td>• Governance mechanisms (Ebrahim, Battilana &amp; Mair 2014)</td>
</tr>
<tr>
<td>environmental goals with financial</td>
<td>away from its social/environmental purpose. (O’Neil &amp; Ucbasaran 2014;</td>
<td>• Leveraging trade-offs (Hockerts 2015; Santos, Pache &amp; Birkholz 2015)</td>
</tr>
<tr>
<td>goals.</td>
<td>Ebrahim, Battilana &amp; Mair 2014)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Collaboration (Sarpong &amp; Davies 2014; Folmer, Nederveen &amp; Schutjens 2018)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Improvising and recombining resources at hand (Baker &amp; Nelson 2005; Sunley &amp; Pinch 2012).</td>
</tr>
<tr>
<td>Legitimacy – being seen as an ‘appropriate’ business in the eyes of various stakeholders.</td>
<td>Legitimacy plays a role in (financial) resource acquisition as well as establishing a customer base (Sarpong &amp; Davies, 2014; Nicholls 2010; Aldrich &amp; Fiol 1994)</td>
<td></td>
</tr>
<tr>
<td>Impact measurement – being able to observe, demonstrate and report social and/or</td>
<td>Demonstrating impact increases legitimacy and access to (financial) resources</td>
<td>• Co-design impact measurement framework with stakeholders (Ebrahim &amp; Rangan 2014; Stephan et al. 2016).</td>
</tr>
<tr>
<td>environmental outcomes.</td>
<td>(Di Domenico, Haugh &amp; Tracey 2010).</td>
<td></td>
</tr>
</tbody>
</table>

Summary and evidence gaps

Because the field of social entrepreneurship research is still relatively young, we can only say that these lessons are tentative, and we need additional research to better understand how social enterprises can thrive, particularly in environmental sustainability. The academic literature tends to be divided into two different streams. Academics in one stream focus on sustainable and environmental businesses and entrepreneurs regardless of whether they can be defined as social enterprises or not. Another stream of literature is focused on social enterprises in general, with little distinction made between whether they have environmental or social goals or both. There is little overlap between the two streams, although they could benefit from cross-fertilisation, and sustainable entrepreneurs and enterprises would benefit from accessing both streams of literature.

Business practice could potentially benefit from those synergies in research. While we can observe an upward trend of enterprises pursuing a dual mission, there is little evidence of enterprises pursuing social, environmental and economic missions simultaneously (Belz and Binder 2017; York, O’Neil and Sarasvathy, 2016). Integration
of a triple bottom line at the core of a sustainable enterprise is challenging, and entrepreneurs have to combine and prioritise goals while running their business efficiently (Hechavarria et al, 2017). Trying to achieve either social or environment goals may lead enterprises to fail to recognise and harness the power of the interconnectivity between the two.

Looking at the context within which social enterprises operate, we know from previous research that social enterprises are more likely to thrive in countries with larger redistributive welfare states and socially supportive cultures (Stephan, Uhlaner and Stride, 2015). It is more likely that social enterprises can create impact when they are backed by supportive governments. National and local governments can offer tangible and intangible support to social enterprises. For example, government actors can ‘champion’ social enterprises by exclusively buying products and services from businesses with a social and/or environmental purpose. This way, government commissioners can enhance legitimacy (helping alleviate the legitimacy problem mentioned earlier) and provide market access to social enterprises. Government actors can also play a role in facilitating ecosystems that are beneficial to the development of social enterprises. They may be especially helpful in establishing links between ecosystems that mostly contain environmentally oriented businesses and social enterprise ecosystems. This could jumpstart cross-fertilisation and encourage entrepreneurs to recognise the interconnectivity of social and environmental goals. This government support is especially crucial in the post COVID-19 period, where many small and medium sized businesses have seen the little financial buffer they may have had disappear (Stephan et al., 2021). We also know that many social enterprises rely on face-to-face interaction with customers and beneficiaries to realise their impact. This is important for activities such as training and education, work integration, recycling and repairing, and building social cohesion, and some of these activities may have suffered greatly from lockdown measures. On the positive side, however, the COVID-19 pandemic may have infused society with renewed imperative and awareness with regard to attaining sustainable development goals.

As far as policy is concerned it is difficult to offer concrete suggestions when the state of knowledge on sustainable social enterprises is in its infancy. However, we have seen from this review of literature that businesses can take positive action on sustainability, and that purpose driven businesses such as social enterprises can offer solutions to many problems that societies face. Recently scholars have suggested that the current regulatory approaches to dealing with market failures have been inadequate. Mayer (2021) for example suggests that governments should legally require corporations to have a purpose which enhances the wellbeing of society. Profit should only be legally obtained by solving problems, and companies should be measured against their success of solving these problems, with boards held accountable for this purpose being delivered. Social enterprises already embrace these ideas and show that it is possible for businesses to be run in this way.

**Conclusions**

Returning to our initial question – does the social enterprise sector provide lessons for SMEs and entrepreneurs more widely in terms of taking positive action on environmental sustainability and climate change? We have seen from the literature on sustainable entrepreneurship that improving sustainability can offer profitable opportunities to businesses. Furthermore, SMEs can take inspiration from the variety of different ways social enterprises alter their business models to improve their sustainability. We have
learnt from the social enterprise literature that pursuing environmental as well as economic goals can lead to tensions in balancing the two sets of goals. Social enterprises have to deal with challenges such as gaining legitimacy and measuring impact. SMEs concerned with improving sustainability are likely to face the same challenges but may face even greater issues with legitimacy when it comes to convincing customers that they take sustainability seriously due to the prevalence of ‘greenwashing’. Thus, considering adding members to the governance board that prioritise sustainability and undertaking transparent impact measurement may be valuable steps to cultivate legitimacy.

Sources

Ellen MacArthur Foundation (EMF), 2013. *Towards the Circular Economy*, vol. 1 (Isle of Wight)

*1 Greenwashing is a practice where companies emphasize “environmentally friendly programs to deflect attention from an organisation’s environmentally unfriendly or less savory activities” (Webster’s New Millennium Dictionary of English, 2009)*


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