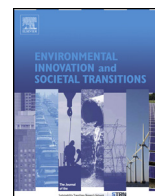




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# Towards a sufficiency-driven business model: Experiences and opportunities

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### ABSTRACT

Business model innovation is an important lever for change to tackle pressing sustainability issues. In this paper, 'sufficiency' is proposed as a driver of business model innovation for sustainability. Sufficiency-driven business models seek to moderate overall resource consumption by curbing demand through education and consumer engagement, making products that last longer and avoiding built-in obsolescence, focusing on satisfying 'needs' rather than promoting 'wants' and fast-fashion, conscious sales and marketing techniques, new revenue models, or innovative technology solutions. This paper uses a case study approach to investigate how companies might use sufficiency as a driver for innovation and asserts that there can be a good business case for sufficiency. Business models of exemplar cases are analysed and insights are gained that will contribute to future research, policy makers and businesses interested in exploring sufficiency.

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## 1. Background: the need for sufficiency-driven business models

Pressure on natural resources and a growing global population and middle class are creating increasing sustainability challenges for industry and society. It is increasingly apparent that business-as-usual is not an option for a sustainable future: a fundamental shift in the purpose of business and almost every aspect of how it is conducted is required ([Jackson, 2009](#); [Ehrenfeld and Hoffman, 2013](#); [Bocken et al., 2014](#)).

Current approaches to sustainability, focusing largely on efficiency and productivity improvements and 'greening' supply chains and products are an important first step in reducing the impacts of production and consumption. However, growth in demand is far outpacing such improvements and innovations and these initiatives can facilitate rebound-effects where efficiency gains lead to more consumption ([Druckman et al., 2011](#); [Bocken et al., 2014](#)). More recently, the concept of the 'circular economy' has gained widespread popularity, whereby materials are continually recycled and reused to curtail demand for new materials. However, even this approach can lead to greater resource consumption if total final consumption of products and services is not mitigated ([Allwood, 2014](#)). Referring to [Boulding \(1966\)](#), a successful circular economy could only be achieved if global demand for the volume of products stabilised, which is a utopian prospect in our growth-driven economic system and expanding global population (in [Allwood, 2014](#)).

Accordingly, a growing number of academics argue that current industrial sustainability initiatives that focus on the supply-side (e.g. product design, production, and supply chain initiatives) are inadequate on their own and that action is

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needed to directly tackle excessive consumption levels (e.g. Jackson, 2009; Ehrenfeld and Hoffman, 2013). Such initiatives are often referred to as ‘sustainable consumption’ (e.g. Jackson, 2009). According to The Royal Society (2012) the most obvious way to reduce the negative effects of human activity on the planet is to decrease resource consumption of those who currently consume the most. While a large part of the world still needs further development and needs to increase consumption to alleviate poverty and suffering, the developed world increasingly experiences the negative effects of over-consumption, such as worryingly high obesity rates and other related health issues. Moreover, whereas most consumption takes place in developed countries, the poorest are most directly affected by climate change impacts (IPCC, 2014) and the environmental degradation caused by materials extraction and production. Therefore tackling developed world consumption levels offers benefits to all.

To manage consumption, businesses will need to move beyond eco-efficiency (saving energy and materials), which is close to the conventional business case, to include more radical new approaches such as ‘sufficiency’, which focus on reducing absolute demand by influencing and mitigating consumption behaviour (Dyllick and Hockerts, 2002; Young and Tilley, 2006; Bocken et al., 2014). As Ehrenfeld (2000, p. 204) observes: ‘The challenge to industrial societies is not simply to reduce consumption, but to transform the nature of what we consume so that both human beings and natural systems can prosper’. ‘Efficiency’ in industrial sustainability is generally ‘supply-side’ or production-focused, aimed at moderating production inputs of materials, energy and labour. Green products and supply chains equally focus on moderating production inputs and impacts: that is, doing the same or more with less. In contrast, we conceptualise ‘sufficiency’ in industrial sustainability as primarily demand-side or consumption-focused, aimed at moderating end-user consumption: *encouraging consumers to make do with less*. ‘Sufficiency’, according to the Oxford English Dictionary, is the ‘condition or quality of being adequate or sufficient; an adequate amount of something, especially of something essential’. The opposite of sufficiency is manifested in our current developed world consumption patterns – ever more rapid discarding and replacement of products and materials, and in the case of food, over-consumption reaching endemic proportions in some countries. Political, social and economic systems champion and celebrate consumption-based economic growth (Jackson, 2009), which inevitably leads to over-consumption after basic needs have been satisfied. A fundamental shift from over-consumption towards a more sufficiency-orientated view of consumption and production, or what has been described as a ‘sufficiency economy’ (Thailand Foreign Office, The Government Public Relations Department, 2014) is therefore essential.

A sufficiency-based approach takes an alternative direction to doing business – directly seeking to reduce or moderate consumption. This notion was articulated in 2006 by the Sustainable Consumption Roundtable (2006, p. 62): “The long-term goal of sustainable consumption must surely be: societal aspirations that are fair for everyone; business models which add human value without taking away environmental value; an economy which is stable and yet sustainable.” Sufficiency in this context is a more ‘social’ principle; referring to individuals (and companies) living on needs rather than wants (Young and Tilley, 2006, p. 409). Sufficiency-driven business models focus on influencing consumption behaviour, which involves for example, a fundamental shift in promotion and sales tactics (e.g. no aggressive or manipulative ‘over-selling’), eschewing fast fashion trends, providing consumer education and ‘choice editing’ to reduce access to sustainably undesirable products, and product design changes to enhance durability, reparability and longevity (Bocken et al., 2014).

At first glance, such approaches seem very much at odds with current business practices and perhaps unviable in competitive markets where sales growth is a key to success. Others argue that it is not the place of business or politicians to interfere in consumer decisions, and hypothesise that sufficiency can only be effectively driven by consumers themselves though product boycotts or consumer activism (e.g. Dyllick and Hockerts, 2002). Notwithstanding these concerns, some examples of sufficiency-based business are emerging. However, despite the interest and growing awareness of the need for a sufficiency-based approach, there is still little understanding of how business and industrial policy might align with this need across the full range of industry sectors and there are few documented examples of such sufficiency-based businesses to date. The literature identifies successful demand-side management to tackle consumption levels in the energy sector through ESCOs (Energy Service Companies), but this is limited to one industry sector with a very specific and acute set of challenges to address driven by legislation, inertia and costs associated with constructing new power plants. According to FORA (2010) ESCOs are business models where the provider “optimizes companies and public buildings and in return gets paid by part of the savings achieved. The customer does not have to pay up front [and is] compensated if savings are less than guaranteed” (p. 9).

This paper explores to what extent business might take a more prominent and leading role in moving towards a sufficiency-driven economy across a broader range of industry sectors, and what business models might be suitable to create and sustain such an economy. Based on our definition of sufficiency-based business (focusing on demand-side moderation), this paper identifies and presents a range of novel emergent cases in key consumer sectors. These business cases suggest that profitability and consumer acceptance of business-led sufficiency approaches is possible, through premium pricing, generating customer loyalty, and increased market share from better (e.g. more durable) products. Such business models can therefore be economically viable, while contributing to reducing over-consumption, and hence material and energy throughputs. The research question is: *How can sufficiency serve as a driver for sustainable business model innovation in companies?*

This paper explores the potential of sufficiency-driven business models using a case study approach to investigate the extent to which such approaches are possible and how they might be designed and maintained. The business models of the companies are analysed to identify the key characteristics and drivers of sufficiency-based solutions. First, the literature on sufficiency in a business (model) context is reviewed. In the methodology section, the case study companies and

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