Responsible Business Model Innovation: Reconceptualizing the role of business in society.

Abstract

Innovation can be described as the application of new ideas, devices or processes which in business is most often seen as a catalyst to growth. The sources of innovation are many, however recent attention has focused on the role of social and environmental drivers. This in turn has led to the notion of ‘responsible innovation’ which demands the consideration of ethical and social aspects during innovation processes as a means to lead not only to technological innovations which are socially acceptable but also socially desirable. Whilst the development of responsible innovation is welcome, we suggest that the concept has predominantly been applied from a technocentric perspective at the level of product and service thus maintaining the current paradigm that business’s primary role is to create economic value through profit. We argue that truly responsible innovation takes place at the level of the business model itself as a means to reconceptualize the fundamental role of business in society. In doing so this paper contributes a working definition of the term ‘responsible business model’ and provides a theoretical framework that places the responsible business model at the intersection of for-profit business motivations and social impact potential. We also set out a series of challenges that need to be addressed when attempting to innovate responsibly at the level of the business model.

Keywords: Responsible Innovation; Business and Society; Business Model
Introduction

The year 2008 represented a turning point for business, traditional economic models and the prevailing capitalist paradigm. At the beginning of the year the world was in the grip of a series of crisis; an oil price spike, world food shortage, subprime lending practices and finally the global financial crisis and resultant recession (Hart, 2007). These, coupled with the many global environmental issues troubling the planet such as climate change, biodiversity loss, deep poverty and growing inequality have conspired to create a new and challenging business environment. Corporations have an increasingly large influence on society, both from an economic perspective and also through the social and environmental impacts of their operations, both positive and negative. As a result, sustainable development of society cannot occur without the sustainable development of the business organisation (Schaltegger, Luedeke–Freund, & Hansen, 2012).

In the past sustainability orientated actions have often been viewed as voluntary responses to the threat of regulation or as a means to improve corporate image. However there has been a considerable body of academic knowledge which seeks to deal with the creation of economic value whilst at the same time increasing corporate social responsibility and sustainability performance (Schaltegger et al., 2012). As a result of this it is well understood that increased regulatory and normative pressures concerning environmental issues positively influence the business organization's propensity to engage in environmental innovation, and the role that innovation plays in creating value for business organisations is clear (Berrone, Fosfuri, Gelabert, & Gomez-Mejia, 2013).
Innovation can be described as the application of new ideas, devices or processes which in business is most often seen as a catalyst to growth. The ability of businesses to be able to innovate is a key mechanism for organizational growth and renewal (Lawson & Samson, 2001). Innovation is critical to corporate success, particularly in challenging economic times such as that currently being experienced (Sawhney & Wolcott, 2011; Schumpeter, 1943) with the literature on past economic crises highlighting the need for better management systems as a survival mechanism (Brealey, 1999; Naidoo, 2010). As a result of this, organisations are increasingly seeking to identify new sources of innovation which may be exploited as a means to renew competitive advantage in the post recession age.

The drivers and sources of innovation are many and include changes in industry structure, market structure, local and global demographics, human perception and advances in scientific knowledge. More recently attention has turned to the way in which global social and environmental issues are driving innovation. It has become widely accepted that in order to address the challenges associated with sustainable development, organisations need to balance their financial, social and environmental performance (Elkington, 1999). It is also understood that firms do not innovate in isolation (Bloch, 2007) rather innovation is driven by cultural, organisational and institutional factors as well as the broader external environment.

Accordingly it has been suggested that sustainability is a key driver of innovation (Nidumolu & Prahalad, 2009).

The need then for innovation that can enhance organization's competitive advantage has to be mediated by the desire to consider social, environmental and economic sustainability. These often competing drivers have led to the notion of ‘responsible innovation’ which demands the
consideration of ethical and social aspects during innovation processes as a means to lead not only to technological innovations which are socially acceptable, but also socially desirable. Here the aim is to consider a wider set of stakeholders and environmental externalities when innovating products or services to ensure that the dual aim of business performance and sustainability are met. Whilst the development of responsible innovation is welcome, we argue that the concept has predominantly been applied from a technocentric perspective that focuses on the development of new products, services, efficiency measures, supply chain or marketing initiatives. In doing so the responsible innovation movement maintains the current paradigm that business’s primary role is to create economic value through profit. Truly responsible innovation should challenge this paradigm by innovating at the level of the business model, addressing the wider question of the role of business in society.

This objective of this paper is to develop a new theoretical framework that places responsible innovation at the centre of business model development. In doing so, we assert that business can use the need to move to more sustainable ways of operating as a driver of innovation. The caveat is that innovation must be responsible and not result in technology or innovation for its own sake. The starting point for improving sustainability at the strategic and operational levels of business surely must be a company’s overarching business model. In this respect, responsible business model innovation for sustainable development is an essential component of ‘operationalising’ sustainability.

**Innovation**

Innovation is a highly complex construct that can pertain to a device, system, process, policy, programme, product or service (Damanpour, Szabat, & Evan, 1989). It is then not only related
to products and processes, but also to marketing and organisation. Schumpeter (1934) described many different types of innovation such as: new products, new production methods, new supply sources, the exploitation of new markets and new organisational approaches. Drucker (1987) builds on this defining innovation as the process of equipping in new improved capabilities or increased utility. The Organisation for Economic Co-operation and Development ‘Oslo Manual’ (OECD, 2005) contains the primary international guidelines for defining and assessing innovation activities and thus represents a definitive source to describe and classify innovation and firm level. Here, four different types of innovation are introduced: Product innovation, Process innovation, Marketing innovation and Organizational innovation.

Despite there being many different pathways to innovation, many companies continue to maintain a narrow view of the term innovation, one that follows a predominantly technocentric paradigm (Sawhney & Wolcott, 2011). Despite this, it is also true that technological innovation does not always translate into value at the customer level and therefore increased revenue for an organisation (Sawhney & Wolcott, 2011). In reality, business innovation is far broader in scope than just product or technological innovation (Sawhney & Wolcott, 2011). Indeed, companies with the highest return on investment on their technology projects are doing more than simply buying in technology, they are inventing new organizationational processes and systems to become digital organisations (Brynjolfsson, 2011). It is clear then that the process of innovation can be seen as far from limited to R&D activities and instead should consider a wide variety of aspects such as the role of institutions, business culture, business models, collaborative relationships among other factors (Cáceres, Guzmán, & Rekowski, 2011).
Business model innovation

At the very heart of every business endeavor sits the business model. As a term, the Oxford English Dictionary defines business model as:

“A plan for the successful operation of a business, identify sources of revenue, the intended customer base, products and details of financing” (OED Online, 2014).

In practice, the concept of the business model is often used but not often clearly defined (Chesbrough, 2013) yet every business enterprise either explicitly or implicitly employs a business model that defines the architecture of the value creation, delivers and capture mechanisms it employs (Teece, 2010; Tikkanen, Lamberg, Parvinen, & Kallunki, 2005). Chesbrough and Rosenbloom (2002) suggest that a business model fulfils the following functions:

- Articulating the value proposition - the value created by the firms offering based on the technology;
- Identifying a market segment and specifies the revenue generation mechanism;
- Defining the structure of the value chain required to create and distribute the product or service and the complementary supporting assets;
- Estimating the cost structure and profit potential;
- Describing the position of the firm within the value network linking customers and suppliers;
- Formulating the competitive strategy by which the firm will gain and hold advantage over rivals.
These attributes collectively serve to justify the capital required to realize the model and define a path to scale up or monetize the business in order to become profitable (Boons & Lüdeke-Freund, 2013; Chesbrough & Rosenbloom, 2002). Whilst this conceptualization of the business model is useful in that it defines some of the key functions of business itself, there is still the assumption that the firm's’ key offering will be technological. To gain benefits from innovation activities, businesses need not simply innovate in the area of product or service innovation, but also at the level of business model design (Teece, 2010).

The issues related to business model innovation have become a subject of increased interest in recent years. Accordingly it has been suggested that business model innovation is the next big step in strategic management (Johnson, 2010). A better business model will often outperform a innovative new process or technology thus becoming a source of competitive advantage in itself (Chesbrough, 2013; Johnson, 2010; Mitchell & Coles, 2013). Despite these assertions, the way in which organisations bring new, innovative products and services to market is still relatively unexplored (Boons & Lüdeke-Freund, 2013; Chesbrough, 2013; Teece, 2010). The business model is a market device that is closely related to innovation (Boons & Lüdeke-Freund, 2013), thus it is important to examine to what extent business model innovation can support the delivery of responsible and sustainable products and services.

**Responsible Innovation**

The concept of ‘responsible innovation’ has been the subject of much interest in the academic community in recent years. It has seen the birth of a new academic journal, the Journal of Responsible Innovation, been the subject of academic and industry conferences, and been
identified as a cross cutting issue under the European Union Framework Programme for Research and Innovation, “Horizon 2020” (von Shomberg, 2013). Whilst an ideal, unambiguous definition of responsible innovation has yet to emerge (Halme & Korpela, 2013), working definitions have been proposed. Von Schomberg (2013) suggest that responsible innovation may be defined as:

“a transparent, interactive process by which societal actors and innovators become mutually responsive to each other with a view to the (ethical) acceptability, sustainability and societal desirability of the innovation process and its marketable products” (von Shomberg, 2013, p. 63).

Here it is expected that the consideration of ethical and social aspects during innovation processes will lead not only to technological innovations which are socially acceptable but also socially desirable (Sutcliffe, 2011). Stilgoe et al (2013) offer a broader based definition, one that attempts to incorporate the long term perspective of sustainable development:

“Responsible innovation means taking care of the future through collective stewardship of science and innovation in the present” (Stilgoe et al., 2013).

The emergence of responsible innovation articulated by both of these definitions can be understood as a new approach to innovation, one in which social and ethical aspects are explicitly taken into account and balanced against economic, social and environmental aspects (Blok & Lemmens, 2015).
Despite a desire to reconcile the concept of innovation with social outcomes, the term responsible innovation has predominantly been applied from a technocentric perspective. In the editorial of the inaugural edition of the Journal of Responsible Innovation, Guston et al (2014) set out motivations for examining responsible innovation, the majority of which focuses responsible innovation from the *technological* viewpoint. In the same journal, Taebi et al (2014) argue that responsible innovation requires the inclusion of stakeholders values in the process of *technological* design. This is perhaps not surprising. Stilgoe et al (2013) point out that responsibility has historically been concerned with the ‘products’ of science and innovation, whilst Godin (2008) asserts that traditionally the understanding and use of the term innovation in general has been restricted to the technical sphere. In this respect the technocentric paradigm of responsible innovation is driven by the traditional conceptualisation of innovation.

Another distinction that needs to be made is the difference between industrial versus non-industrial innovation. Blok and Lemmens (2015) suggest that most research on responsible innovation is carried out from a policy or socio-ethical perspective focussing on the academic research and development environment whilst most innovations take place in a commercial or industrial setting. Within these spheres it is research based innovations such as genetic modification, geo-engineering and nano-engineering that have commanded the most attention, perhaps due to the inherent ethical questions these areas of work raise (Owen et al., 2013). In contrast industrial innovation has received scant attention from responsible innovation researchers despite the fact that in many industries (for example the pharmaceutical sector) it is here, not the publicly funded academic research institutions, that the majority of new innovation takes place (Toole, 2012). Accordingly the field of corporate
innovation is underrepresented, if at all, in the responsible innovation literature (Lubberink, Blok, van Ophem, & Omta, 2014; Penders, Verbakel, & Nelis, 2009), yet it is here where business model innovation is occurring.

The very notion of responsible innovation itself has been critiqued by Blok and Lemmens (2015) who argue that the consideration of responsible innovation requires a radical transformation of the concept of innovation itself. They suggest that current definitions pre-suppose that social and ethical concerns can be incorporated into innovation at the start of the process and thus responsibility is seen as an add-on, or extension to the concept of innovation rather than a holistic, embedded model (Blok & Lemmens, 2015). Some academics however have sought to derive a more holistic definition of responsible innovation that incorporates a wider set of values over and above technological product or process design. One of these is that proposed by Hamle and Korpela (2013) who suggest that a responsible innovation refers to a new or significantly improved product or service or business model whose implementation at the market solves or alleviates an environmental or social problem. The key term here is “business model” the very heart of the business endeavor which suggests that truly responsible innovation requires a radical rethinking and reframing of the role of business in society and the development of responsible business models that can contribute to the wider aims of sustainable development.

Parallels can be drawn between the concept of responsible innovation and those of terms ‘sustainable innovation’ or ‘innovation for sustainable development’. All of these terms however are ill defined and and suffer from a lack of conceptual consensus (Boons & Lüdeke-Freund, 2013). Carrillo-Hermosilla et al (2010) present an overview of the literature
in this area listing many different interpretations of the term ‘eco-innovation’ which is used synonymously with sustainable innovation. Similarities can also be found between this literature and that of responsible innovation in that studies have primarily focussed on the environmental impact of a product or service, a somewhat technological approach to the problem, however there is a growing body of work which focusses on the social impacts in recognition of the fact that without successful diffusion in society, responsible innovations are meaningless (Basu, Banerjee, & Sweeny, 2013; Desa & Koch, 2014; Hall & Clark, 2003; Prahalad, 2009).

**Responsible Business Model Innovation**

Responsible innovations requires a reframing of responsibility in the context of innovation which by its very nature is uncertain and unpredictable (Owen, Macnaghten, & Stilgoe, 2012). Moreover, proactive sustainability orientated innovations and strategies may help in the creation of new business models which support the business case for sustainability (Schaltegger et al., 2012). In recognition of this new understanding, some organisations have begun the process of developing more responsible business models, the need for which has been identified by a number of academics and industry working groups. For example, the Retail Industry Leaders Association (RILA) working in partnership with the non-profit group Forum for the Future and sponsors Target and Unilever have developed a dialogue termed ‘Retail Horizons’ to examine the retail industry's future and the implications of strategic decisions being taken (RILA, 2014). The result of this conversation has been that retailers are beginning to understand that in order to be successful in future, it is essential that they innovate outside of the traditionally mapped territory of operational and supply-chain
efficiencies and tackle business-model innovation. This shift towards responsible business models was identified as a top priority for retail professionals in 2015 (RILA, 2014).

There are some existing examples of business models which may act as a starting point from which to begin the process of innovating towards responsible business models. Such examples include Social Enterprise and Social Entrepreneurship, Sustainability Entrepreneurship and Co-operative business.

**Social Entrepreneurship**

Social Enterprises have gained much recognition and support for the contribution that they make towards a sustainable society (Darby & Jenkins, 2006) with the term encompassing a wide range of projects and types of organisations as defined by the UK Government:

‘A social enterprise is a business with primarily social objectives whose surpluses are principally reinvested for that purpose in the business or in the community, rather than being driven by the need to maximise profit for shareholders and owners...Social enterprises tackle a wide range of social and environmental issues and operate in all parts of the economy’ (DTI, 2002).

Social enterprises then are organisations established to solve identified social problems in a business way. Another model related to social enterprise is that of Social entrepreneurship. Whilst there are many differing definitions of the social entrepreneur, most commonly they are conceptualised as individuals that take the initiative to identify and address important social problems in their communities (Dacin, Dacin, & Matear, 2010). Like social enterprise,
social entrepreneurship can be seen as differing from other more traditional forms of entrepreneurship by the relatively higher priority given to promoting social value and development over economic value (Mair & Martí, 2006). Social entrepreneurs operate across a range of business typologies straddling public and third sector organisations and private business ventures as shown in Figure 1. The difference between these two models can be seen as social entrepreneurship being driven by the individual, whilst social enterprise operates at the level of the organisation.

![Figure 1: Social Entrepreneurship](image)

**Cooperative business models**

The cooperative business model (shown in Figure 2) is based on a structure where the owners are also customers. The premise is that instead of focussing primarily on producing profits for its owners, cooperatives offer improved services, differentiated product assortments and a
unique position as the outlet of choice for a particular product or service (Mikami, 2003; Sorescu, Frambach, Singh, Rangaswamy, & Bridges, 2011). As a result of the opportunity for the businesses customers to contribute to the governance of the organisation, cooperative companies can champion an ethical approach to business underpinned by internationally agreed principles and values (McDonnell, Macknight, & Donnelly, 2012). There is also evidence that suggests that cooperative business models provide stability and security in tough economic times, tending to last longer that other businesses in the private sector (Birchall & Ketilson, 2009).

![Figure 2: The cooperative business model (McDonnell et al., 2012)](image)

**Sustainability Entrepreneurship**

Sustainability focussed entrepreneurs design business ventures with the primary intention of developing improved approaches to environmental quality and social well-being (Parrish & Foxon, 2006). This model facilitates the incorporation of knowledge about business
entrepreneurship with that of sustainable development enabling a holistic, interdisciplinary, systems based approach to both business and sustainability problems (Parrish & Tilley, 2010). From a business perspective the application of sustainability entrepreneurship presents opportunities in the form of innovative products, services and production processes that may contribute to environmental or social improvement (Nowduri, 2012). The result is that sustainability entrepreneurship can act as a catalyst in ongoing efforts to combine self-interest with the outcome of social welfare. Tilley and Young (2009) suggest that sustainable entrepreneurs could potentially be the true wealth generators of the future, with the definition of wealth in this context referring to net benefit to the economy, community and the natural environment.

Application of responsible business models

Whilst there are many companies who employ these responsible business models, they are very much in the minority and tend to be established to meet a specific need such as to provide a service in absence of a state or market actor, or in the case of cooperatives to share profits amongst a wide range of stakeholders thus providing a mix of self-help and mutual aid. Despite this there are some private and public companies who have sought to innovate within their existing, for profit, business models in order to reduce their impact on the environment and contribute to social sustainability goals.

The privately owned outdoor clothing company Patagonia has developed a business model which appears to reject the overt consumerism many companies rely on in order to increase sales, instead developing a quality over quantity philosophy (Fowler & Hope, 2007). In 2013 the brand famously ran an “anti-black Friday” campaign which encouraged customers to get
their products repaired rather than purchasing new ones (Patagonia, 2013). The companies social and environmentally conscious practices developed and delivered through its business model have helped it maintain a larger gross profit margin than its competitors and target a 10% rate of annual growth in sales (Reinhardt, Casadesus-Masanell, & Kim, 2010).

Another much cited example is that of US-based carpet manufacturer Interface Inc, a publically traded company. Under the firm’s late founder and CEO Ray Anderson, the company changed its business model from one that manufactured and sold carpets for office buildings to a floor covering service-Leasing model (Stubbs & Cocklin, 2008). The result was the creation of a new customer value proposition, “floor-covering” and a thirty fold reduction in the flow of materials derived from a model which saw the company get paid to provide the agreed level of comfort regardless of how they choose to deliver it (Lovins, Lovins, & Hawken, 1999). Such an approach can realign an organization's metrics, incentives, measurement and accounting practices with the long term goal of reducing environmental harm and maximising social well-being (Boons & Lüdeke-Freund, 2013).

**Theoretical Framework**

Despite these examples, responsible business models that operate within commercial enterprises are still rare. Previous attempts at developing new sustainable (responsible) business models have simply provided steps designed to integrate sustainable development into existing business models rather than revising and innovating the business model itself (Birkin, Cashman, & Koh, 2009).
It is here that the responsible innovation movement can assist in developing new business models that incorporate the principles of social responsibility, sustainability and ethics. Ideally these business models would be attractive to for-profit organisations, be scalable across different size organisations and operate across all business sectors. Figure 3 maps the relationship between business entity and motive. It is the top right corner, commercial enterprise, where responsible innovation activities need to occur.

![Figure 3: Relationship between business entity and motivation (Hebbar, 2010)](image)

When considering innovation at the level of the business model, it is important to recognise that each individual, community, firm or organisation has different values, preferences and interests that arise out of specific cultural and social situations (Birkin et al., 2009; Opoku,
As such responsible business models must be flexible enough to incorporate local needs and operate in local markets.

Of course the first step when attempting to identify what responsible business model innovation would look like is to develop a working definition. Here we suggest that a combination of von Shomberg’s definition of responsible innovation (von Shomberg, 2013) and the Oxford English Dictionary definition of the business plan (OED Online, 2014) may act as a starting point. This results in the following definition of the Responsible Business Model:

“*A plan for the successful operation of a business which identifies sources of revenue and contributions to economic development, products and services that improve the wellbeing of its identified customer base, workforce and societal sustainable development and ethical sources of finance.*”

This definition seeks to place the principles of responsibility and sustainability at the heart of the development of the business model. In doing so it is hoped that the development of business strategy and activities aimed at operationalizing the business model will in turn also feature the principles of responsibility and sustainability. The responsible business model sits then at the intersection of for-profit business motivations and social impact potential as illustrated in Figure 4.
One of the key difficulties faced by business seeking to incorporate responsible and sustainability principles into their business model and operational strategy is the tension between value as profit and social value. Birkin et al (2009) suggest that it is very likely that new sustainable business models will have to address issues that appear to be counter to business interest. For this reason responsible business model innovation requires the inclusion of stakeholder values in the process of design in the same way that a responsible technical innovation does (Taebi et al., 2014).

In summary then responsible business model innovation must address the following challenges:
● Incorporation of the principles of sustainable development, social responsibility and ethics into the business model;

● Reconciliation of the often conflicting interests of profit and social value;

● Flexibility to incorporate local needs and markets;

● Scalability across a wide range of business sizes;

● Replicable both within and across a range of business sectors;

● Inclusion of all relevant stakeholders in the design of new responsible business models;

● Operationalizable in practice.

The challenges for truly responsible business model innovation are many, however there exists an opportunity to utilise the current interest in responsible innovation to examine these challenges in more detail and reconceptualize the role of business in society.

**Conclusion**

The increased activity around the notion of responsible innovation is to be welcomed and both academics and practitioners should continue to develop knowledge in these areas. However it should be recognised that innovation at the technical level of service and product should be secondary to the development of new responsible business models that address the fundamental question of the role of business in society. It is one thing to develop new innovative responsible products and services, but another to ensure that they are delivered to market via a business model that also ensues the principles of sustainable development, social responsibility and ethics.
It is clear that business need to continue to innovate in order to remain successful and profitable. It is also clear that innovation within business is required to ensure that social and environmental concerns are addressed as a core function of company operations. Many businesses are already seeking to innovate within their existing business models and there are an increasing range of examples where such innovation has increased shareholder profit whilst resulting in substantial social and environmental improvements. However these companies remain in the minority. Business model change is notoriously difficult and as such the majority of companies who express the desire to move towards more responsible and sustainable business practices seek to do so through product and service innovation, supply chain optimisation activities and technical efficiency and demand reduction initiatives.

Whilst this paper does not propose solutions to the problem of responsible business model development, it has sought to argue that such developments must be the starting point for the responsible innovation movement. As a facilitator of this we have contributed a working definition of the ‘responsible business model’ and sought to provide a theoretical framework that places the responsible business model at the intersection of for-profit business motivations and social impact potential. Finally we have set out a series of challenges that need to be addressed when attempting to innovate responsibly at the level of the business model. As the need to meet sustainability challenges becomes more urgent, so does the need to define what business should look like in relation to society and innovate new responsible business models.
References


for the 21st Century. doi:10.2139/ssrn.2041159


responsible innovation. In R Owen, J. Bessant, & M. Heintz (Eds.), Responsible Innovation (pp. 27–50). John Wiley & Sons, Ltd. Chichester.


