

The business model

- Formation, description and definition

Jon Williamsson

Doctoral dissertation in Business Administration, Department of Business Administration, School of Business, Economics and Law at University of Gothenburg, August, 29, 2014.

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Cover photo: Emma Williamsson

ISBN: 978-91-7246-328-8

BAS Publishing
School of Business, Economics and Law
University of Gothenburg
Box 610
405 30 Gothenburg
Sweden
E-mail: BAS@handels.gu.se

Printed by: Ineko AB, Kållerød, 2014

Abstract

The business model is a new analytical concept in the field of strategy research that is frequently used when trying to explain the creation and capture of value by firms. This compilation thesis consists of three papers that examine different aspects of the formation of business models and one paper that examines the business model concept per se.

The first paper explores the potential impact of two market based environmental policy instruments (MBIs) upon the business models of seven Swedish cleantech ventures. The results show that the MBIs have a mainly negative influence on the business models and fail to raise the marginal abatement costs high enough for the firms to find profitable market niches in Sweden.

The second paper explores how managers in the Swedish municipal district heating sector choose between two different approaches to the inclusion of stakeholders when committing to business model renewal. The results show that managers include less salient stakeholders in the strategic goals of the firm than in the processes that shape firm strategy. This result is contrasted by the fact that less tangible value is directed towards the less salient groups.

The third paper presents a framework for a narrative analysis of business model formation and examines narratives from interviews with managers working in the Swedish municipal district heating sector. The results suggest that there are certain properties of narrative terms (agent, scene, agency and purpose) that narrators associate with particular outcomes. Successful business model development is associated with malleable or adaptable agents, accessible scenes, visible and easily understood tools and an inclusive purpose. Failure is associated with diametrically opposed properties such as inflexible agents, closed scenes, obscure tools and a purpose that is exclusive to particular agents. The study shows that despite almost three decades of privatization, democratic and communal values dominate the narratives told by the managers.

The fourth paper analyzes the business model concept and suggests that a new perspective based on pragmatist and non-structuralist arguments might go some way in solving some of the issues that plague the concept. The business model is redefined as consisting of five areas of concern which should be dealt with in the dialogue between firm representatives and stakeholders.

Acknowledgements

Although my time as a doctoral student turned out differently than what I expected this cannot be blamed on the lack of support from colleagues and friends. Instead there are many people who I would like to thank for their moral support and thoughtful comments. I am first and foremost grateful towards my supervisors Professor Ted Lindblom and Senior Lecturer Anders Sandoff on whose advice I have leaned on throughout my time at the department of Industrial and financial economics and logistics. Furthermore, I wish to thank my colleagues who provided insights and comments throughout the development of this thesis. I also wish to thank the Swedish District Heating association for their financial support and the research opportunities they have provided by giving access to data and personnel.

Preface

The overarching theme of this thesis is the business model concept, but as it is closely related to strategy a portion of the thesis is dedicated to a discussion about the relation between these two concepts. Both concepts emerged to describe distinct aspects of business management and are frequently used in business research, as well as in media. The business model is a concept with a short and arguably dramatic history. When I first became interested in the business model concept, it was re-emerging after having been initially dismissed as a fad. The concept had been associated with the unsustainable and often outlandish ventures that emerged during the dotcom bubble (Magretta 2002). In spite of this heritage the concept represents a new analytical area in strategy research that has been embraced by many researchers (Zott et al. 2011).

Since the business model is a fairly new idea there are inevitably kinks within its conceptualization. Some are theoretical and others are of a more practical nature. I have attended a number of business model workshops in which managers attempt to use the business model as a tool to analyze present or future business scenarios. In my opinion those workshops failed to achieve what they set out to do. Participants appeared to be just as confused about what to do with the concept after the workshop as they had been before. Clearly something was amiss both with the business model concept per se and with the ways people utilized it. This realization led me on a journey of conceptual development that can be traced in the different perspectives on the business model concept that I present in the first, third and fourth paper.

When working with the business model, researchers often create frameworks that are based on normative assertions about certain aspects of the firm (Sanchez & Ricart 2010). It has been pointed out that existing frameworks in some aspects have failed at providing explanatory power beyond a narrowly specified intended use (cf. Demil & Lecocq 2010). My interest in such issues led me to study critique against theories in the field of strategy research (e.g. Powell 2001, Barney 2001). During this pursuit I realized that the business model concept share many of its challenges with different topics in the strategy field. Inspired by Powell (2001) and Kuhn (2008), I devised, in the fourth paper, a novel approach to the business model concept, which I believe is more functional and flexible than existing alternatives.

During my years as a doctoral student my interest in epistemological and philosophical topics grew steadily. For me, this thesis represents a development that started with a position based on the teachings of Searle (1995, 2001), but gradually shifted towards a pragmatic stance supported by such work as Dewey & Bentley (1949) and Rorty (1979). The endeavor was fraught with challenges of both a professional and a personal nature. Questioning the status of knowledge and the creation of knowledge meant that I had to question my perceptions of the world and my choice of occupation. After all, if there is no privileged “Truth” then what does a social scientist have that is of value to the world. However, the construction of a contextually bound truth builds on an interaction between vocabularies (cf. Rorty 1979, Wittgenstein 2009). This interaction is a source of conflict and creativity. The human condition is characterized by a constant oscillation between discord and concord as well as a reliance on contingency (Rorty 1998). Pragmatism, in accordance with Rorty (1989), elevates the importance of interaction between those that constitute society. We all have a role in defining and possibly softening the effects of problems by interacting and discussing with each other. Tensions between persons and between ideas offer researchers opportunities to study and co-create the vocabularies that describe organizations and society. Ergo, a social scientist may offer knowledge of, and perspectives on, not only distinct vocabularies but also their blending.

It is here also necessary to mention that the first paper is based on research conducted for my licentiate thesis. The paper contains a deepened theoretical discussion as well as revision of the results that were previously presented in the licentiate thesis. To conclude, writing this thesis was challenging and I sincerely hope that you as a reader will find it interesting, thought provoking and in some way useful.

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1. Introduction

This compilation thesis deals with issues related to the formation of business models and the epistemological and ontological nature of the business model concept per se. There is no commonly accepted definition of the concept but it is frequently thought of as system-level approach to describing how value is produced and captured by a firm within a specific context (Zott et al. 2011). The business model is by some conceived as a reflection of the realized strategy of the firm (Casadesus-Masanell & Ricart 2010). The business model is thus thought of as existing independently of a representation as the effect of decisions made by managers (cf. Teece 2010). Others see the business model as consisting of more than the mere practice that was brought about by previous decision making related to strategic issues. These researchers claim that the business model is built on past and present sensemaking activities of managers and employees and as such is influenced by (Tikkanen et al. 2005) and represented through, narratives (Magretta 2002). In either case the business model has to be formalized in some type of representation in order for it to be studied. Such representations – often referred to as frameworks – have received much attention both in business and research circles and are often based on normative assertions about the firm and its environment (Sanchez & Ricart 2010).

The business model is a relatively new concept within the field of strategy research (Casadesus-Masanell & Ricart 2010). Both academic and business interest in the concept mushroomed during the latter half of the 1990s (Ghaziani & Ventresca 2005). Among practitioners, the interest in the concept was associated with the arrival of the internet and the use of the concept in association with internet start-ups (Magretta 2002). Scholarly interest is thought to have soared due to activities in several areas such as internet related business, emerging markets and post-industrial technologies (Zott et al. 2011). As the amount of research related to the business model concept increased, a great number of different definitions and approaches to the study of the concept emerged (Morris et al. 2005). Within the eclectic mixture of present day research there does exist some common strands of thought. In an extensive survey of existing research, by Zott et al. (2011) it is claimed that the business model concept is seen by many researchers as an attempt at grasping and explaining the entirety of what it means to be doing business but without getting bogged down in details. A review of the scientific use of the concept, by (Baden-Fuller & Morgan 2010) shows that it is frequently relied on as a tool for the establishment of taxonomies and

typologies as well as for the creation of so called ideal types – examples of how to ideally do business.

1.1 Setting the scene

When viewing the business model as the result of stimuli influencing managerial cognition (e.g. Tikkanen et al. 2005, Prahalad 2004), two areas arise that are of particular interest to business model researchers, namely the context that the firm exists within and the cognitive processes of the managers. The papers in this thesis deal with the bi-directional interaction between those two areas of interest. The firm is commonly assumed to exist within a context that is dominated by factors and resources derived from nature (cf. Hart 1995) and the socially constructed environment (cf. Granovetter 1985, 1992). The managerial cognitive processes receive inputs from those two contexts while enacting and influencing them through their actions (cf. Weick 1995). Consequently, value creation at firm level is aimed at the socially constructed context, while utilizing and influencing both social and natural resources.

Human activities channeled through firms do not only produce value, they also produce a wide variety of negative side effects, commonly referred to as negative externalities, which affect both the natural and social context. In the autumn of 2013 the Intergovernmental Panel on Climate Change (IPCC) stated that it is ‘extremely likely’ that global warming is caused by human industrial activity (IPCC Working Group I 2013). Global warming is only one instance of anthropogenic environmental degradation. The acidification of bodies of water essential to plant and wildlife, the spread of pollutants in air- and waterways, the introduction of artificial chemical and biological agents into different natural cycles are all examples of environmental degradation that pose serious threats not only to animals but also to humans. Environmental degradation cause much suffering (Myers & Patz 2009) and incur high costs on societies (Croitoru & Sarraf 2010, Hussein 2008). Besides environmental degradation, much concern has been raised about severe social inequality that lingers both within and between countries. Social inequality, in the form of poverty, causes friction both on a local and on a global scale (Justino 2009, Cramer 2003). Unfortunately, environmental degradation and poverty work in tandem, diminishing quality of life (Donohoe 2003). Through the industrialization, firms have come to play a considerable part in the creation of environmental degradation and social inequality. Contemporary industrialization processes, that to a great extent rely on firms as a vehicle for productivity growth, such as those in China and India, have resulted in severe environmental degradation (Zhou 2013,

D'Souza & Peretiako 2004) and increased income inequality (Sutherland & Yao 2011, Pieters 2009). In line with this argument, long run firm survivability is not only dependent on value creation, but also dependent on the continuity of the very context in which the firm is based.

Even though private entrepreneurship has and will continue to cause environmental and social problems it nonetheless also holds the seed for a better tomorrow. Firms bring benefits to those countries that enable and encourage private entrepreneurship (Smith 2012). Innovation and efficiency gains generated through firms can alleviate environmental degradation. Firms also enable wealth generation and through the creation of jobs they have helped to lift hundreds of millions out of poverty. Firms are constructed and maintained within a context of local, national and international institutions. Today our social institutions are designed to support certain types of growth oriented firm efforts, but firms may just as well achieve socially and environmentally sustainable goals instead (Lawn 2011). By creating institutions that work through markets with private enterprise it is possible to hem in and alleviate the negative externalities that haunt society (Cohen & Winn 2007).

Since firms play a major role in societies all over the world, it is important to understand what motivates individuals to utilize and interact with firms and how activities done within the borders of firms are affected by the societies in which they act. During the last two decades the business model concept has emerged as an attempt at answering these questions and to show how firms can play a role in ameliorating environmental and social problems. New business models can decrease the environmental impact of business (e.g. Stubbs & Cocklin 2008) or help impoverished citizens by offering products and services in ways that traditional business models cannot (e.g. Yunus et al. 2010, Seelos & Mair 2005).

1.2 The influence of policy on business models

The success of a business model is thought to be dependent on both external and internal fit (Morris et al. 2005). This means that a business model is considered to exist within a business environment constituted by parameters that are more or less important for the firm to adjust to (cf. Teece 2010). Beyond the physical restraints such as distance to markets or access to resources, legislation and policy are important parameters that firms – especially those that do not have the resources to lobby for legislative change – need to adapt to. Consequently, policy constitutes a contextual boundary that may hinder the development of certain business models and

support the development of others. Due to concerns that policy may influence firms in negative ways and incur costs on society through misallocation of capital (e.g. Berkhout & Gouldson 2003) market based instruments (MBIs), have been preferred by academics as tools for governmental interference in the private sector (Kemp & Pontoglio 2011). Such instruments have been implemented both on a national (e.g. the Swedish green certificate system – TGC) and international level (e.g. the European Union’s emission trading system – EU ETS). Despite the fact that much research has been done on how regulation and policy influence firms there are few studies that use the business model as an analytical unit (Poel et al. 2007). The question whether and how MBIs influence business models is unexplored. There are two likely reasons for this. First, research on sustainable innovation and diffusion has to a great extent neglected issues related to business model research (Boons et al. 2013, Boons & Lüdeke-Freund 2013). Second, economic theory more or less dominates the study of policy instruments (cf. Kemp & Pontoglio 2011), and the business model concept has so far not become established in that field. This is likely to be caused by the fact that economic theory relies on theoretical constructs that are built around markets solving the problems that business models solve (Teece 2010). By studying the potential influence of MBIs on business models the first paper in this thesis therefore introduces an analytical unit previously left out of such research. The study is conducted on technology providers from the Swedish energy related cleantech sector. Cleantech (short for clean technology) is a category of technology that has environmental benefits when compared to existing alternatives (Gouldson & Murphy 1998). Energy related cleantech is costly, which makes the Swedish market – with its high abatement costs (McKinsey 2008) and twin market based systems – a suitable setting.

1.3 Stakeholder inclusion in business model renewal

In business model research the renewal of a firm’s business model has been thought of as a way to regain or increase competitive power (Yip 2004, Chesbrough 2007, Giesen et al. 2007, Johnson et al. 2008). The choice of business model is a matter that involves a high degree of complexity (Yip 2004, Casadesus-Masanell & Ricart 2010) and it is made even more complex if a firm already has a well-established business model (Chesbrough & Rosenbloom 2002). The business model describes how a firm defines, produces, delivers and presents value (Teece 2010). This means that the configuration of a business model is of great interest to stakeholders and influences how they perceive the firm. Since the business world of today is characterized by well informed and vocal stakeholders that put pressure on

managers (Hart & Sharma 2004), the views and actions of primary and secondary stakeholders (Clarkson 1995) will influence the fate of a business model. The inclusion of stakeholders or stakeholder perspectives has been presented as something of a panacea for complex challenges in general and stakeholder related challenges in particular (e.g. Hart & Sharma 2004, Simmons et al. 2005, Reed 2008, Camillus 2008, Porter & Kramer 2011). Inclusion of stakeholders has been associated with proactive strategy work (Buyse & Verbeke 2003), but due to the idiosyncratic characteristics of interaction with stakeholders it is a highly challenging way of managing the firm (Hall & Vredenburg 2005). Until recently, the issue of how firms engage with stakeholders received minor attention (Foster & Jonker 2005) and it is unclear how stakeholder inclusion influences strategy (Burchell & Cook 2006) and thus business model renewal.

The relation between strategy and the business model means that the inclusion of stakeholders is a strategic problem. Strategy is argued to consist of two fundamental aspects – goals and processes (cf. Chandler 1962, Bourgeois 1980) – but research on stakeholder inclusion (e.g. Cumming 2001, Spitzack & Hansen 2010, Spitzack, Hansen & Grayson 2011) has not taken this division into consideration. Conceptually, goal inclusion refers to the altering of strategic goals in order to accommodate stakeholders or stakeholder perspectives. Process inclusion is the consideration of stakeholder perspectives or inclusion of stakeholders directly in the processes that are used to develop the goals of the firm. Goal inclusion is the simplest and most direct approach of the two. It may be exemplified by a shift in value distribution between existing stakeholder groups, value creation for a widening number of stakeholder groups (cf. Freeman 1984) or a change in the composition of value that the firm produces (cf. Porter & Kramer 2011). The process approach to inclusion is more complex since it involves establishing routines for the continuous interaction between strategy makers and stakeholder groups (cf. Hart & Sharma 2004, Camillus 2008). Process inclusion can be done at different levels of stakeholder involvement. At the very least it entails some kind of dialogue: for example information meetings and consultation. It may also be a deeper kind of involvement such as full board membership (Cumming 2001, Spitzack & Hansen 2010). Despite the complexity, process inclusion is thought to be an important tool for strategy and business model renewal (Hart & Sharma 2004, Camillus 2008).

When comparing the two approaches they both have their benefits and drawbacks. In contrast to the process approach, goal inclusion does not necessarily mean a transferal of power to stakeholders. Such transfer would

allow stakeholders to continuously influence decision making on strategy creation. Poorly configured goal inclusion may be perceived as a kind of pay-off directed towards noisy stakeholders or a way for managers to “greenwash” firm activities (cf. Ramus & Montiel 2005). The process approach may lead to the establishment of relations that are beneficial for the firm (Hart & Sharma 2004, Camillus 2008), but it is a complex style of management (Hall & Vredenburg 2005). If the inclusion is not managed well and if stakeholders feel that they are not making an impact they might leave (Burchell & Cook 2006) and may hurt firm interests in the process. Thus, there are tangible tradeoffs connected to the dilemma of choosing between goal and process inclusion. The second paper explores managerial decision making in relation to this dilemma and the purpose of the paper is to examine if, how and why managers prioritize certain types of inclusion over others. The study is set in the Swedish municipal district heating sector where firms work under commercial conditions while being inescapably tied to the local setting. As a result the successful management of long and diverse stakeholder relationships is crucial to managerial legitimacy and firm longevity.

1.4 Sensemaking and business model formation

Research on business models and technical innovations hint that the development of a business model is different depending on whether it is done by managers in a newly started venture or by managers in an incumbent firm (Chesbrough & Rosenbloom 2002). Existing organizations appear to have problems changing their business model due to changes conflicting with the established routines or arrangements of assets (Chesbrough 2010) and managers in incumbent firms with an established business model are reluctant to adopt technology that does not fit with an existing business models (Chesbrough & Rosenbloom 2002). Failing to adapt the business model to changes in the business environment may be costly and lead to the demise of the firm (Johnson et al. 2008).

Chesbrough (2010) reviews research on business model formation and finds that there exist two different schools of thought when it comes to the topic of business model formation. The two schools postulate obstruction and confusion, respectively, as the main barriers to business model formation. Proponents of obstruction suggest that managers are wedded to resources and that this fact coupled with path dependency hinders managers from reaching their chosen model. Chesbrough (2010) believes that this perspective infuses managers with the ability of rationally assessing and deciding on which business model configuration that is suitable in a

particular setting. Being opposed to this perspective he asserts that managers rarely have a clear image of what business model should be pursued in a given situation. Research done in the field of sensemaking supports Chesbrough's assessment of managerial cognition. Tikkanen, et al. (2005) claim that, besides containing concrete resources, the business model also consists of cognitive and evolutionary aspects and is connected to the sensemaking activities of all involved actors. Sensemaking research also shows that humans act on a contextual rationality (e.g. Weick 1995) and that managers tend to utilize narrative knowledge (Hummel 1991). Magretta (2002) even states that the business model has two sides, one narrative and one economic, and that both sides need to add up in order for the business model to be profitable. Few studies of business model formation embrace the narrative side of organizational decision making. This lack of research means that there exists no established methodology for doing narrative research on business model formation. In the third paper I therefore suggest a framework for studying business model formation through narratives. I evaluate the outcome by applying the framework on interviews with managers from firms working in the Swedish municipal district heating sector – a sector that due to deregulation have experienced the formation of business models.

1.5 Assumptions behind business model framework related research

The poor recognition of sensemaking in much business model research indicates that research on managerial decision making and organizational behavior is being overlooked. A common method for studying business models is to construct a framework that covers a number of normatively derived elements (Sanchez & Ricart 2010) that the business model is supposed to consist of. A recent and widely quoted such framework is the RCOV framework. The acronym stands for Resources, Competences, Organizational structure and Value proposition. The framework was created by Demil & Lecocq (2010) in order to alleviate the problems they saw in previous research on the business model.

Demil & Lecocq (2010) suggest that frameworks developed for the study of the business model can be divided into two diametrically opposed categories. The first category is static, in that the business model is utilized as something akin to blueprints of different organizational and economic properties. A business model that belongs to this category serves as a type of scientific model that can be utilized for hypothesis generation and testing, as well as for the description and classification of firms. The second category is

transformational in nature and focuses on the business model as a means to deal with or initiate change. Both categories are thought to have drawbacks, which makes strict reliance on them problematic (Demil & Lecocq 2010). The static category excels at exploring causal relationships and classifying types of businesses, but fails to deal with and facilitate change. The opposite is true for models belonging to the transformational category. Demil & Lecocq (2010) try to overcome the differences between the two types by producing a new framework largely based on a Penrosian view of value creation.

The RCOV framework represents an attempt at making the business model concept a more functional tool for researchers and practitioners. When studying the framework, I have identified six features – or rather shortcomings – that call into question if Demil & Lecocq (2010) achieved what they set out to do. The fourth paper therefore examines what implications the features have for the functionality of the framework. It also suggests how a business model framework could be constructed in order to avoid similar faults.

1.6 General aim and structure of the thesis

Being a relatively new unit of analysis, the business model has much to prove to the research community. The concept is, however, believed to have a great potential to explain different business related phenomena (Zott et al. 2011) and its conceptual refinement is therefore of great importance. Currently, there appears to exist a division between research that embraces a more reflexive and context driven conceptualization of the business model concept (e.g. Chesbrough 2010, Tikkanen et al. 2005, Magretta 2002) and research that see the business model as a tool similar to those found in the natural sciences (e.g. Zott & Amit 2010, Amit & Zott 2008, Amit & Zott 2001, Shafer et al. 2005, Morris et al. 2005). The papers that comprise this thesis explore research questions that take inspiration in the first of these two camps. Consequently, the general aim of this thesis is to explore empirical and theoretical issues related to business model formation and the business model concept per se while relying on a sensemaking oriented understanding of managerial cognition and organizational development.

The thesis consists of two parts, the first is a description and contextualization of the research and the second contains the four papers. The disposition of the first part is as follows. The second chapter presents the main theoretical concepts that are used within the thesis. The third chapter contains a discussion about ontological and epistemological issues

related to sensemaking, the key process on which the papers in this thesis base their inquiries. It also describes the methods applied within the papers and discusses sensemaking in relation to research method and the researcher's role when gathering empirical data. The fourth chapter contains a description of the sectors from which the studied firms have been selected. The fifth chapter contains summaries of the papers. The sixth and final chapter presents a closing discussion about the results from the papers as well as reflections on the research process.

2. Conceptual framework

The creation of value is probably the most fundamental concern in business administration research. Value is an ambiguous and difficult concept and its definition is dependent on the theoretical stance that one takes on the firm (cf. Bowman & Ambrosini 2000). Nevertheless, the existence of the firm can be said to be legitimized by the production of particular types of value directed to specific stakeholder groups (cf. Sundaram & Inkpen 2004). The generation of value, whether it is economic or of some other type, is complex. Osterwalder (2004) describes how business activities responsible for value generation are considered to take place on three conceptual activity layers: the strategic, the business model and the process layer. This separation seems intuitive and straightforward, but it disguises a complexity in the relation between the concepts. Especially as the two concepts of strategy and business model are closely related and can therefore be difficult to distinguish from each other (Casadesus-Masanell & Ricart 2010). Magretta (2002) and Teece (2010) both claim that there should be a tight link between a firm's business model and its strategy. Thus, it is important to describe these two concepts in order to explore differences and similarities between them.

2.1 Strategy

Strategy has been presented both as a panacea and a problem for managers (Mintzberg 1994). Strategy research is a field that contains many theoretical perspectives. As a result the field has branched into a number of sub-fields which contain different positions on fundamental questions such as what is important in strategy research and how strategy should be studied (cf. Mintzberg & Lampel 1999; Regnér 2003). MacCrimmon (1993) suggests that it is possible to derive a fundamental definition of strategy. He argues that at its bare minimum strategy is a series of resource demanding related actions that are coordinated by goals. The definition implies that there are at least two dimensions to strategy, namely action and purpose, or as I argue in

the second paper; process and goal. Strategy research also contains two fields of interest in connection to those two dimensions namely strategy process research (e.g. Pettigrew 1992) and goal setting research (e.g. Latham & Locke 2006).

Azar & Brock (2009) claim that strategy process research is one of the main research areas within the strategy field. This area has laid the foundations for much contemporary strategy research, out of which later perspectives such as the strategy-as-practice perspective has emerged (Chia & MacKay 2007). Strategy process research focuses on examining and describing how strategy is created (Regnér 2005). It presents strategy related decision making as a process both contingent on and supervising the micro-activities that constitute strategic work (Whittington 1996). The strategy process is in itself a complex concept and Van de Ven (1992) suggests that researchers have used it in three different ways. First, as a logic which explains causal relationships. Second, as a category of concepts which refer to actions. Third, as a sequence of events that describes how things change over time. Out of these three categories of use Van de Ven (1992) claims that the second one is most frequently relied upon.

Goal setting is a field that is just as complex as the strategy process field. Goals represent a state of affairs with desirable properties, which an organization can strive towards (Etzioni 1960). By studying goals and how goals are set, researchers may study not only the internal workings of the organization, but also the relation between the organization and its environment (Simon 1964). Since goal setting involves many different social and psychological factors, goal setting research draws on both behavioral (e.g. Latham & Locke 2006) and social sciences (e.g. Thompson & McEwen 1958). In business administration research, the academic discussion about goal setting for profit driven organizations, such as private firms, revolves around the questions of what the primary goal the firm should be in order for it to cope with a specific situation or to achieve a congruent theoretical framework for strategy making (cf. Margolis & Walsh 2003).

In the second paper, I adopt a stakeholder oriented perspective on strategy. Stakeholder management, as it has somewhat cynically been called, is a concern for strategy researchers that has become a field of its own due to the popularization of the stakeholder view (Donaldson & Preston 1995). Stakeholder research complicates the otherwise dominating shareholder perspective, which prioritizes the interest of one particular stakeholder group, namely the owners, over the interests of other groups. As a result stakeholder research has generated a fierce debate among those searching for a theory on

goal setting for firms (cf. Sundaram & Inkpen 2004, Freeman et al. 2004). A stakeholder perspective does not necessarily lead to setting the goal of producing value to several stakeholders at the same time. Martin (2010) shows that the focus on shareholder value may be supplanted by value creation directed towards singular stakeholder groups, such as customers. Strategy can thus be seen as a question of which stakeholder group to prioritize when balancing stakeholder demands. Others, such as Casadesus-Masanell & Ricart (2010), see the priority of stakeholders as a consequence of strategic choices about the business model. For them strategy refers to the choice of business model or, rather, the creation of an activity based system. To these researchers strategy thus represents a contingent plan as to what business model to use under specific circumstances.

2.2 The business model concept

The business model concept is closely related to strategy and is thought to be an important factor when discussing value creation in firms. Teece (2010) and several researchers with him, suggest that the business model is the aspect of firm management that has the highest impact on revenue. He also suggests that it is among the least understood aspects of firm based value creation. The business model has during the last decade become an increasingly popular concept within the strategy management field (Lecocq et al. 2010). Despite the fact that the concept has become a part of mainstream strategy research a comprehensive review by Zott et al. (2011) of research on the concept reveals that a commonly accepted definition has yet to emerge. The authors also discovered that most research conceptualizes the business model as a system level description of how value is produced and captured by a firm within a specific context.

Teece (2010:172-174) describes the business model concept as “embod[ying] nothing less than the organizational and financial ‘architecture’ of a business... the notion refers in the first instance to a conceptual, rather than a financial, model of a business. It makes implicit assumptions about customers, the behavior of revenues and costs, the changing nature of user needs, and likely competitor responses. It outlines the business logic required to earn a profit (if one is available to be earned) and, once adopted, defines the way the enterprise ‘goes to market’.” From this description and the idea that the business model is a reflection of the realized strategy of the firm (Casadesus-Masanell & Ricart 2010), it can be deduced that the business model fulfills two conceptual functions.

First, the business model is an unexpressed logic behind how a firm is configured in a specific way both with regards to its internal resources and processes as well as its relations to entities outside the firm. The configuration of an implemented business model is seen as independent of its representation. Such an approach to firm related value creation can be linked to the concept of ‘fit’, which is of central importance in the field of strategy research (Venkatraman & Camillus 1984; Venkatraman 1989; Zajac et al. 2000). In line with this argument, Morris et al. (2005) claim that business models do have internal and external fit. The properties of a business model are assumed to be identifiable as well as neutral to the researcher’s attempt at portraying them. The properties can therefore be useful as markers when classifying firms in a taxonomy or typology (Baden-Fuller & Morgan, 2010).

Second, the business model is a diversely conceptualized description or representation of the configuration discussed above. As a representation of an underlying phenomenon a business model may be more or less accurate.

The attempt by Teece (2010) to clarify what a business model is, shows that the business model expresses the purpose of the firm and that it identifies important individuals and activities connected to it. The business model depicts relations between the firm and different actors, such as stakeholders, while describing how and why these parties communicate and interact. The business model depicts the roles that the involved actors need to fulfill in order for the firm to produce value. As discussed in the third and fourth paper this indicates that the business model as a representation is something more than just a neutral depiction. The business model representation describes a scene on which different characters move and infuses these characters with motives which makes them move along a plot - the creation and capture of value - much in the same way as a script or a play does. Magretta (2002) support such a perspective by claiming that the business model is a narrative that describes the logic behind how a firm can be successful.

It is not only the description of a business model that has its foundations in a constructed narrative of reality, but also the business configuration itself. Such a claim can be based on the research conducted by Tikkanen et al. (2005), who argue that the business model not only contains tangible resources but also consists of cognitive and evolutionary aspects. The authors present the development of a business model as being connected to the sensemaking activities of involved actors. Sensemaking is widely seen a process of narrativization in which individuals and groups create narratives

about reality and infuse them with meaning, leaving a discrepancy between “reality” and the world as it is narrated by different actors (Rhodes & Brown, 2005). Consequently, as narratives play an important role in both the configuration and description of business models, the third paper presents a narrative framework for the study of the business model.

2.3 Business model frameworks in the thesis

The papers within this thesis rely on and criticize two frameworks for business model research: “The entrepreneur’s business model” framework created by Morris et al. (2005) and the “Resources & Competences, Organizational structure and Value proposition” or “RCOV“ framework created by Demil & Lecocq (2010). Both frameworks are widely referred to and used in several studies. In this thesis the “entrepreneurial” framework is used as a basis for the formulation of interview questions for the empirical papers while the RCOV and the general nature of the business model framework are scrutinized and discussed at length in the fourth paper. In order to orient the reader about the entrepreneurial framework a brief presentation and discussion about its most important parts follows.

Due to the lack of a consensus on the definition of a business model, Morris et al. (2005) created a framework that aims to facilitate efforts to understand and define firm or industry specific business models for entrepreneurial firms. Their framework is an example of a component based approach to the business model. Based on an extensive literature review and supplementary research, the authors have defined six components that they claim portrays a firm’s business model. While other researchers such as Shafer et al. (2005) also have developed business model frameworks with similar characteristics they are, as in the case of Shafer et al. (2005), often of a more general nature. Since many cleantech firms, as those which I studied in the first paper, are small entrepreneurial companies, the definition presented by Morris et al. (2005), was more relevant for the study in question. The entrepreneurial framework is also frequently referred to by other researchers and has been applied in exploratory studies of small and medium sized entrepreneurial firms (e.g. Libaers et al. 2010). As discussed in this brief presentation the entrepreneurial model is very flexible. The analytical structure of the framework makes it easy to adapt to other similar scientific endeavors. It was therefore relied on as an inspirational source for the second and third paper.

Morris et al. (2005:730) believe that a business model needs to be able to answer six questions related to firm based value creation. The answer to each

question defines a component that, when added together, portrays the business model. The questions are here presented in a somewhat rephrased form in order to be more explanatory to the reader and are:

- How does the firm create value for the customer?
- For what type of customer does the firm create value?
- What is the internal source of advantage of the firm in relation to competitors?
- How is the firm positioned in the market in relation to competitors?
- How does the firm make money, i.e. price its products?
- What are the time, scope and size ambitions with the firm?

When described in a rigorous manner the components are thought by Morris et al. (2005) to facilitate visualization and comparison of business models. The entrepreneurial framework thus aims to fulfill the task of being an instrument for the establishment of taxonomies or typologies (cf. Baden-Fuller & Morgan, 2010). The components are similar to the functions that Chesbrough & Rosenbloom (2002) present in their study of business models in innovative companies. However, by rearranging a number of the features and by adding financing and pricing issues, Morris et al. (2005) claim to expand the business model's explanatory value for the study of entrepreneurial firms.

As each question serves to delimit a topic which is then linked to extensive academic research, the questions constitute a first step when describing a business model. Morris et al. (2005) propose follow-up questions that describe a more detailed underlying terrain of sub-components. Morris et al. (2005) propose that the components and subcomponents which they consist of influence each other. This suggests that the business model consists of a limited number of choices and combinations of answers, making the strategic choice of a business model into a problem of optimization. Morris et al. (2005) also claim that the business model has both internal and external fit. Such a perspective is indirectly criticized by Chesbrough (2010) who does not believe managerial decision making and business models function in ways that enable optimization. To further clarify how the framework functions the main questions are here explored further, but the follow-up questions are considered superfluous due to their structuralist nature.

In a competitive market the pull that the value exerts on the customer provides the firm with an existential legitimacy (cf. Teece 2010). Morris et al. (2005) suggest that the answer to the question of how the firm creates value for the customer defines both the value proposition that the firm

presents to the customer and how that value is created. Chesbrough & Rosenbloom (2002) points out that defining the value proposition is the primary step a manager should take in order to successfully commercialize a product. Unless the latent value is articulated through a clear value proposition, customers will have a difficult time seeing the benefits of consuming the product or service.

In relation to the second question it is suggested that managers need to be clear about to whom they direct the firm's value proposition to (Teece 2010). Identifying the customer as well as its position both geographically and in the value chain is necessary in order to anticipate the customer's demands towards the firm (Morris et al. 2005). Market delimitation allows managers to segment the market – dividing it into customers who have similar preferences and value the product in similar ways (e.g. Gordijn & Akkermans 2001). Market segmentation is a crucial step that has to be made in order for the firm to achieve sustainable profitability (Teece 2010) and the failure to clearly define markets is one of the most common causes to why entrepreneurial firms fail (Morris et al. 2005).

Morris et al. (2005) argue that on a competitive market managers need to ask themselves what the internal source of advantage for the firm is. Answering the third question therefore should present the core competencies of the firm, i.e. those skills and abilities which the firm can perform well (Hamel 2001). Based on the internal source of advantage the manager needs to explore how the firm should be positioned towards its competitors (Morris et al. 2005). The positioning can be based on a perceived competitive edge when compared to rivals (Amit and Zott 2001). It can also be based on exclusivity when it comes to internal sources of advantage and market delimitation (Teece 2010). Doing so links the explanatory function of this question to the resource based view where unique resources are utilized in different manners to create competitive advantages (cf. Barney 1991, 2001). It is believed that there is a strong link between the firm's internal capacity and the position that the firm takes on the market. It is therefore important for managers to identify competitors and try to define a unique and defensible niche in which the firm can use its internal advantage to fend off or defeat competition that is encroaching on the targeted market segment (Morris et al. 2005). It is important to point out that the reasoning builds on a distinct dichotomy between competencies that reside within and outside of the firm as well as a strict competitive view on strategy similar to that developed by Porter (1985). Such a dichotomy is contrasted by Chesbrough's (2006, 2007) conceptualization of open business models, where value is thought of as

being a network effort, placing most of the value creation and capture in the collaboration between the firm and other actors.

Defining value proposition, market segment, production and positioning is according to Morris et al. (2005) not enough to properly describe a business model. According to them there is also a need to describe how the firm makes money and what the ambitions should be with the firm. Answering the question of how the firm makes money explains, according to Morris et al. (2005), how the firm is supposed to monetize their business model, i.e. charge for their product. This is done by carefully weighing pricing factors and production volume against other aspects of the business model (Morris et al. 2005). Moreover, in relation to this question, the issues of revenues and costs should be explored in order to explicate the economic rationale behind the firm. Consequently, the issue of how the business model ‘makes money’ fulfills the function of economic calculation that Magretta (2002) requires in a business model. Furthermore, the focus on moneymaking put the issues of pricing (e.g. Linder & Cantrell 2000) and capital budgeting (e.g. Afuah 2004) at the heart of the business model.

Firms exist for varying reasons and the ambitions that the owners and managers have with the firm are believed to influence how a firm looks. The inclusion of such ambitions in a business model framework is therefore believed to add explanatory value to the business model concept (Morris et al. 2005). The issue of inclusion of ambitions in a business model framework divides the research community. Ambitions are by some researchers (e.g. Osterwalder 2004) thought to be solely strategic and are therefore not a part of the business model. Others believe it is reasonable to integrate it as a part of the business model since the line that separates the two concepts is fluid (e.g. Teece 2010, Magretta 2002).

The RCOV framework (Demil & Lecocq 2010) is different from the entrepreneurial framework (Morris et al. 2005) both in the sense that it creates a role for the business model as a means to portray a ‘dynamic consistency’ (which supposedly underlies the business logic of a firm), and that it is more an aggregated framework with less details and no conceptual layering. Nevertheless there are features that the frameworks have in common which are shared with other suggested frameworks (e.g. Shafer et al. 2005). Both rely on the business model as a description of an underlying logic that exists independently of its representation. That logic, or configuration, of different properties and relations is believed to be re-arranged in ways that may ‘fit’ with an external business environment. Managers are expected to adapt the configuration to the business

environment and even though managers may influence that environment it is thought of as a parameter to be optimized against. This perspective on the business model as well as the RCOV framework itself is scrutinized in detail in paper four and is therefore not discussed further here.

3. Research approach

Both the business model and the strategy of a firm may be manifested in artefacts – such as documents, books or homepages. However, both the business model and strategy are complex socially constructed concepts that exist beyond the mere physical dimensions of such artefacts. They exist within and between the users of such artefacts. The artefacts therefore bear little meaning in themselves without an understanding of the context in which they are maintained. There is thus a cognitive dimension linked to these concepts, which should be the focal point of an empirical inquiry.

Tikkanen et al. (2005) notes that the business model is a tool that managers may use to understand business and that this tool is used in the managers' sensemaking activities. Similarly Giola & Chittipeddi (1991) describe how managers engage in sensemaking when constructing strategies for change. Sensemaking is, as presented by Weick (1995), the making of sense out of different stimuli. Consequently the study of business models or strategy becomes the study of how managers make sense out of different issues that are related to those concepts. The basis for the empirical research presented in this thesis is therefore found in the field on sensemaking research.

Weick (1995) describes how sensemaking is a complex subject defined differently in different contexts. The concept has implications for the results of my studies not only because of how it affects people and organizations that are being studied, but also because it affects the researcher as well as the interaction between the researcher and those "being studied". Sensemaking is widely seen as a process of narrativization in which individuals and groups create narratives and infuse these with meaning, leaving a discrepancy between "reality" and the world as it is narrated (Rhodes & Brown, 2005). This discrepancy is of minor concern to sensemaking research, since it is not the external "reality" that we act upon, but rather our perceived and participated reality. The end result is an enactment of the social world (Weick 1995). Hence, the definition of sensemaking has impact on how research problems are posed and how methods such as interviews may be used.

3.1 Sensemaking

Weick (1995) initiates a discussion on the meaning of sensemaking by defining it as being the making of sense out of events. Since sensemaking shares characteristics with other explanatory processes such as understanding, interpretation and attribution, he identifies seven distinguishing characteristics that sets sensemaking apart from those concepts: i) sensemaking is grounded in identity construction, ii) it is retrospective, iii) it is enacting of sensible environments, iv) it is social, v) it is constantly ongoing, vi) it is focused on extracting cues and is also driven by cues, vii) it is driven by plausibility rather than accuracy.

The first of these seven characteristics is linked to the consciousness of an individual, a sensemaker, and her search for an identity in the interaction between her own conflicting images of herself and those held by people in her surroundings. Weick (1995) sees the building and maintenance of an identity as the core aspect of sensemaking. The creation of an identity is a continuous and tentative activity done within a context, which is often organizational in nature (Ring & Van de Ven, 1989). This implies that the sensemaker in such situations takes on two roles: one as an individual and one as a representative of an organization. In the second role the sensemaker is often required to adopt the values, beliefs and goals of that collective (Chatman et al. 1986). From that Weick (1995) draws the conclusion that the contextual nature of identity building implies that the sensemaker makes sense of that which happens by pondering the implications those events have for the possible future selves. He further points to reciprocity between context and individual identity construction, which means that the meaning of a particular situation is dependent on the identity adopted in dealing with it. Identity is also affected by perceptions of what is going on. This can be interpreted as having the following implications for the work presented in this thesis. When inquiring about experiences the answers will not only reflect what the interviewee needs to convey in order to maintain her identity within the organization, or for that sake in relation to the interviewer. It will also reflect how the interviewee perceives the interview in relation to the overall context. In short, the way the research presents the interview and the research in relation to the interviewee's identity will influence the stance that the interviewee takes when answering questions.

The second characteristic is retrospection. As consciousness is a state of sensing that which has already happened, Weick (1995) sees sensemaking as a retrospective activity. When we look back on events, we have a bias towards mentally structuring events in ways which strengthens causal links

and connect maybe unrelated events in order to create a history that leads directly towards the outcome (Starbuck & Milliken 1988). Weick (1995) interprets this as a search for congruence. He describes how the creation of the feeling of order, clarity and rationality are important goals of human sensemaking and that when such goals are met further retrospection is unnecessary. This indicates that we are constantly reconstructing our past in order to find firm ground onto which we can tie our identity. Furthermore, there is a tendency to evaluate actions based on the outcome implying that the experience of an event is not something neutral or fixed. This tendency to reconstruct that which has happened implies that we cannot view or describe past events in an objective manner (Weick 1995). The conclusion that can be drawn from this is that it is not only people that the researcher interacts with that “cannot be trusted” – as producers of an objective account of events – but also the researcher is caught in this process of continuous retrospective reconstruction.

The third characteristic is the making, or enactment, of the social and physical environment. Enactment is a process in which people dynamically co-create their environment together with their social and physical surroundings (Weick 1995). The world which is enacted puts boundaries on the actions and views, which the individual can accept or adopt. As such enacting is what makes sensemaking into the building block for institutionalization (Weick 1995). Through enactment the meaning of a concept or a physical artifact is decided and related to the sensemaker and the environment. This is done in a subjective, punctuated and divided manner that is linked to the causal connections that the sensemaker believe to exist between different categories of artifacts (Weick 1995). This implies that when, for example, a manager discusses a topic and the individual’s position in relation to it she is not merely putting feelings into words but also enacting the topic. Through the production of official documents, verbal acts and the interaction with people, she and other individuals, who enact the same environment, makes concepts such as growth or profit targets into tangible manifestations of the sensemaking process.

The fourth characteristic of sensemaking is that it is social. Weick (1995) relies on a definition of the term provided by Walsh & Ungson (1991) in order to stress the interrelatedness of sensemaking between different sensemakers. Weick (1995) further points out that even when an individual is isolated; sensemaking still emphasizes the relational and social. He also states that any internal monologue an individual conducts presumes an imagined audience. Consequently, when an individual is asked to reflect upon some past event, it is not only the context of that event and the

individual's retrospective re-conceptualization of that event that molds the description that the sensemaker will produce, but also the language and relation that she shares with the audience. The shared desire to explain and to understand transforms a dialogue into a social recreation of past events.

The fifth characteristic is that sensemaking is a process that is ongoing in the sense that in the conscious mind it never really starts or stops (Weick 1995). This implies that the structuring that is imposed on experiences will be dependent on the emotional state at the time of retrospection but also of the emotions that are associated to an event that is remembered or imagined. As Snyder & White (1982) point out, memories of events are associated with particular feelings and the tendency to rely on emotional recollection means that memories may pop up as feelings are evoked or vice versa. Emotions cannot be isolated from sensemaking. A person engaged in sensemaking might consequently not respond to the actual event, but to the emotional state tied to a reconstructed earlier event. In the case of the interaction between the researcher and an interviewee, the ongoing nature of sensemaking will be represented by snippets of re-constructed memories that are chosen or constructed based on emotional stimuli. A response to a question might thus be dependent on factors, which lies far beyond the context of the interview but are associated to it in the mind of the interviewee. This opens up for the exploration of explicit and implicit links between different concepts that emerge throughout an interview.

The sixth characteristic is that sensemaking is swift and thrives on cues that help the sensemaker to quickly reach a conclusion that is congruent with a view on earlier stimuli. The extraction of cues is according to Weick (1995) the focus of sensemaking and cues may be used in such a way that a minor piece of information may grow into an important building block in the reasoning that the sensemaker is embarking on. Extracted cues therefore become incentives to enact and reconstruct their past to fit with the cues or to interpret the cues in ways that fit with the reconstruction (Weick 1995). This feature of sensemaking explains how seemingly meaningless or unimportant things can turn out to play major parts in our reconstruction of events.

The seventh and final characteristic is the reliance on plausibility instead of accuracy. Weick (1995) describes how what really matters for the sensemaker is not if facts are accurate or not. Rather it is the connections between the cues that feed the sensemaking that is important. The cues need to fit together in some way to create a plausible and rough coherent picture. Consequently, things may get blown out of proportion without causing a

conflicting worldview. Sensemaking is therefore “about accounts that are socially acceptable and credible” rather than accurate (Weick 1995:60). This takes us back to the narrative inclination of sensemaking and the centrality of stories and storytelling in attempts at infusing events with meaning, coherence and stability.

3.2 Method

In the papers four different types of sources are used: i) interviews, ii) group discussions, iii) manufacturing and accounting data collected by third parties and iv) homepages and annual reports produced by the studied firms. Each of these types of sources poses different challenges to the researcher and I will here discuss how I viewed and worked with them.

3.2.1 Interviews

When dealing with the fluent and often elusive state of organizational experience interviews are a ubiquitous (Cassell 2011) and important method (Alvesson 2002) for inquiries. In the empirically driven papers within this thesis interviews play a key role. The interview is by some seen as just another tool through which they may access facts, imitating a positivistic research paradigm in which the researcher gather, analyze and extrapolate from data (Alvesson 2002). From such a perspective the researcher is on a fact finding mission and the interview is a channel through which knowledge can be transferred between the interviewee and the interviewer (Holstein & Gubrium 1997). Since sensemaking is not concerned with facts but congruence it is problematic to rely on the interview as a tool for accessing facts. Cassell (2011) describes how the linguistic turn during the 1980s has inspired many researchers within the social sciences to distance themselves from the positivistic perspective. What has emerged instead is according to her, a multitude of perspectives on the interview and its use in the social sciences in general and organizational studies in particular. King (2004) describes how these perspectives may be divided into three main categories: realist, phenomenological and social constructionist. The realist perspective relies on the interviewee’s ability to convey and the interviewer’s ability to correctly receive descriptions of independently existing facts. The phenomenological perspective attributes more complexity to the interview and postulates the need for the researcher to contemplate the impact of predispositions and perspectives on the interview. The social constructionist perspective knocks down the outcomes of an interview from being accounts of facts. Instead the questions and answers generated within an interview are seen as coproduced contextually dependent texts. Alvesson (2002) presents a similar division as King (2004), but both Alvesson (2002) and Cassell (2011)

point out that the interview plays a very different role in research depending on which epistemological perspective that is adopted. Both authors agree that the demarcations between the epistemological categories are not precise. The researcher must therefore find and argue for the particular position of each study that she engages in.

What decides whether the interview is a good or bad research tool depends on what epistemological perspective the researcher has adopted (Cassell 2011). The work done for this thesis relies on subjectivist ontology and interpretivist epistemology (Cunliffe 2011) or a social constructionist perspective in line with King (2004). The interview is viewed by me as an interactive process where meaning is built by the interacting parties (Czarniawska 1997, Denzin, 2001). The participants are influencing each other through the use of different linguistic or body cues that are interpreted and acted upon in a manner that makes them inseparable from the generation (Alvesson & Sköldberg 2000). In the studies, the interview was viewed as an occasion for both the researcher and the interviewee to express and influence each other's subjective accounts of whatever theme that was discussed at that moment.

In order to keep a general direction during and between the interviews a continuously updated interview schedule was used. Before each interview, the interview schedule was adapted to the specific firm and respondent. The information that was used to do this was gathered from the firm's homepage, annual reports, production data and responses from earlier interviews. This made it possible to discuss and reflect upon impressions that the interviewer had during earlier interviews. According to Feldman et al. (2004), narratives will naturally occur in an interview, since the interviewee will try to find appropriate examples to the broader themes being discussed. However, based on doubts about the spontaneous occurrence of narratives in interviews expressed by Clandinin & Connely (2000), as well as on Geiger & Antonacopoulou (2009), questions were constructed so that they encouraged responses that exemplify through contextualization and narratives. The interviews contained questions that were meant to shed light on both strategy and business model related issues.

In order to make sure that it was possible to make several readings of the material all interviews were recorded and transcribed with a low level of inference (Silverman 2006). Notes were also taken in order to keep track on the progress of the interview and to give the interviewer more time to reflect upon answers and to make further questions. Between the interviews the transcribed material and the notes were reviewed in order to adjust the

questions and to find analytical categories in the manner described by Atkinson & Heritage (1984).

Alvesson (2002) refers to the analysis of how the researcher is positioned in a particular context, such as the interview situation, as the study of reflexivity. Reflexivity is linked by Alvesson (2002) to Rorty's (1989) concept of irony and he indicates that there is a need for a conscious and systematic effort from the researcher's part to view the subject at hand from different angles while not favoring one particular perspective. Since each separate instance of social research can be considered as a unique reflection of the researcher and the context that she enacts it is difficult to find a measurement that show if reflexivity has been achieved or not. It is instead up to the researcher to engage with the material in a transparent and honest way and argue convincingly that this has been the case.

3.2.2 Group discussion

The group discussion format has commonly been used as a complementary method for data gathering when conducting interview studies (Morgan 1996). Group discussions in the form of focus groups are very different from interviews both in respect to what they offer to the researcher and what they provide to the participants. Kitzinger (1994) presents focus groups as a method used to flesh out a general description of a theme that the participants feel is attractive enough to discuss openly. As such it is a good way to generate concepts, further questions or even hypotheses. It is not well suited for the examination of individual respondent's experiences.

The group discussion format was used for the second paper, both in connection to a focus group meeting and in two workshops. The sessions were prepared for through the construction of questions related to the strategic challenges that Magnusson (2012) sees for firms in the district heating sector. The participating managers were approached due to their knowledge about how their firms and the sector in general deal with those challenges. The sessions were led by third party consultants while I took notes and occasionally asked complementary questions. The focus group format was not used to fill in any gaps related to the individual firms. Instead it was used to improve the understanding of the challenges and issues specific to the district heating context. It also helped to refine interview questions and shape a general understanding of sector specific dynamics between firms and stakeholders.

3.2.3 Manufacturing and accounting data

For the first three papers manufacturing statistics and accounting data was gathered and used mostly for the construction of interview questions. Especially while working with the studies of the district heating sector a large amount of manufacturing and accounting data was made available by the Swedish district heating association and the Swedish Energy Markets Inspectorate. A database was compiled by merging data from data from those two sources. The data was then structured and analyzed in order to get a picture of both the sector as a whole, sub-sets within the sector and the individual firms that were approached for interviews. The data originated from district heating firms that regularly hand in detailed production and accounting data to governmental agencies. Several governmental agencies use such statistical data as basis for exploring different issues related to pricing and competition.

Besides these contextual issues, the data for the individual district heating firms showed how the production and delivery facilities had developed – in some cases from as far back as the 1960. In general, only production data from the last ten years was available. This time period was sufficient to enable the adaptation of initial and follow-up-questions to the specific representative in a way that most likely raised the contextual relevance of the inquiry. Events such as large investments, change of fuel mix or rising maintenance costs were used to initiate discussions or entice the respondent to elaborate with an example – rich in context and often of a narrative nature.

3.2.4 Homepages and annual reports

Annual reports (Neu et al. 1998) and homepages (Unerman & Bennett 2004) are in general thought of as important routes for communication with stakeholders. Annual reports and homepages, produced by the firms participating in the studies, were used as examples of communication directed towards external stakeholders. The annual reports for the two previous years were collected and read prior to interviews. The material was scrutinized both in order to get a better understanding of what kind of image the firm's tried to present as well as getting a better picture of the organizations in general. The material was used in order to make the interview questions more relevant for the respondents. Furthermore, the material contained different types of goal statements that the firms tried to communicate to stakeholders. The annual report for the previous year (2010 or 2011) and goal related statements from the homepage were used in the analysis of the second paper.

3.3 Research context

The data for paper two and three was gathered within an interdisciplinary research project, financed by the Swedish District Heating Association. It ran from March of 2010 to May of 2013 and had the purpose of exploring business models and business logic in the Swedish district heating sector. The project involved researchers and consultants with a background in engineering, marketing, anthropology and management. As access to respondents was initially quite restricted, it was necessary to share interview appointments with the other researchers participating in the project. Consequently, four of the initial interviews with top managers were conducted in groups with two to three researchers present. The interviews were divided in a manner that gave the researchers opportunity to get answers to their questions. Attending the initial interviews made it possible for me to not only make personal reflections upon different approaches to interview methodology, but also to discuss the answers that the respondents provided with the researchers that had been present during the interview.

Since the project targeted the entire Swedish district heating sector I had the opportunity to interview representatives from firms that were not municipally owned. Additionally I participated in different events that were not directly connected to the research problems explored in this thesis. Looking back on the research process, the additional opportunities for data gathering both helped me in building a personal understanding for the sector as a whole and to relate that understanding to the situations described by managers active in the municipally owned firms.

3.4 Analyzing data and generalizing results

In the studies analyses were conducted in parallel with the gathering of new data. This heuristic approach was adopted in order to improve the quality of the data through the contextualization of, for example, interview questions. The case firms were studied in a sequential order with the objective of reaching saturation (cf. Small 2009). Once the analysis showed that there was nothing to be gained from gathering further data, i.e. the data repeated themes that had been encountered previously, and the analysis did not provide further analytical categories, the collection of data was terminated.

Each analysis was conducted with the use of a coding system that was unique to each study. In each of the studies the data from the different sources were gathered in databases or digital documents. Data was classified, put in categories and compared. The primary categories were based on the particular theoretical framework used for that particular study. Once the

primary categorization was done, new categories were often identified based on patterns found within or between the main categories. When new categories were found the data was reanalyzed and new codes were added in order to see if the new categories could be found elsewhere. In this way the analysis created layers of concepts that enriched the understanding of the identified categories and the relations between them.

The reliance on case methodology and qualitative data give rise to concerns about validity and generalizability (Yin 2003). Such concerns are derived from perspectives on the nature of knowledge and the role data plays in the creation of knowledge (Cassell 2011). The motives that propel the studies in this thesis carry with them different notions of knowledge and the methods that the researcher may employ in order to approach a subject. The difference is most notable when comparing the first paper with the second and third.

The first paper, for which the data was collected during my licentiate, was driven by the will to create a kind of knowledge that often is linked to a positivistic commitment to validity, i.e. the correspondence or correctness in the link between a representation and an objective reality (Polkinghorne 2007). In that type of study the method is a means to get to objective data that forms a “true” description of the world (Cassell 2011). True, is here used in the sense that the data used to generate the results is thought to correspond to an objective reality or an individual’s or organization’s view of that objective reality (cf. Searle 1995). The validity of the first paper should thus be evaluated based on how the data and the arguments drawn from that data fit with other ‘confirmed’ data and commonly accepted ‘peer reviewed’ research.

The second and the third paper rely on a different perspective with regard to the subjects being studied and validity per se. These papers deal with the descriptions presented by managers and present these as subjective, retrospections that were constructed in order to achieve and present a congruent worldview (Weick 1995). Sensemaking in this manner is to a large part narrativization of the experienced reality (Rhodes & Brown, 2005) and narrative research acknowledges that validity as an argumentation that is related to the choice of method (Polkinghorne 2007). This makes validity for research based on interviews of particular interest for this thesis. According to Polkinghorne (2007), the pursuit of validity in narrative research is a rhetorical endeavor that relies on argumentation and demonstration. By using these two tools, the researcher tries to convince the audience that there is validity in the claims that she makes, i.e. that the discrepancies that exists

between the narrative accounts that people tell and the meaning that they experienced are small and that the conclusions that the researcher makes are plausible (Polkinghorne 2007).

When using different sources it is possible that they point in different or even contradicting directions. In all of the three empirical studies different data sources are used in a heuristic manner, reminiscent of triangulation (cf. Silverman 2006). Triangulation has been criticized and according to Fielding & Fielding (1986) the data that is generated in such a way may not provide an objective truth. Nevertheless is triangulation a valuable approach to data gathering since it adds dimensions to the data and the analysis that enrich the research (Silverman 2006). Cox & Hassard (2005) argue in line with Silverman (2006) for a reformation of the view on triangulation and present it as a way for the researcher to create an “angle” on the subject of study. It is therefore not a “single right answer” that is of interest for the researcher but a perspective that captures the totality of that which has been produced through the case study. Believing that tension between sources tells something about the complexity of a case it was explored in depth whenever encountered.

Once data has been collected and the analysis finalized the issue of generalization arises. Generalization is a question of whether or not the results contain something that can be considered important and relevant in other instances. The issue of generalizing from case studies has been debated extensively (e.g. Eisenhardt & Graebner 2007, Flyvbjerg 2006). Case study research is a fundamental and popular approach to empirical inquiry within the social sciences (Thomas 2011). Despite the popularity of the case approach there is disagreement about what can be generalized based on a case (Flyvbjerg 2006). Generalization in qualitative studies is frequently built on logical rather than statistical inference and constructed around a case specific rather than sample oriented logic (Small 2009, Tsoukas 2011). In the case of the first paper the author’s view on the issue of generalization were aligned with the conclusions offered by Yin (2002) and Eisenhardt & Graebner (2007). Each case firm is an experiment that generates data that can then be used to form an emergent theory. Results from studies that in this way relies on multiple cases are generalizable in the extent to which they enrich an emergent theory, but not as a test of theory (Eisenhardt & Graebner 2007).

Case studies conducted in social science are by some thought to be generalizable when the researcher relies on sequential interviewing, range sampling, snowballing and use these methods in unique cases (Small 2009).

Studies, such as the second and third paper, that rely on narratives as a principal source of data, depend on plausibility of inference in each comparative incident rather than a measure of representativeness of an abstract mean or a population segment. This perspective implies that the researcher to a certain extent entrusts the generalization of research results to the reader, who by the use of her logical or emotional reasoning assesses the “worth” of the results when comparing with her own knowledge and beliefs. Case study research in this tradition becomes a pursuit of the language bound “truth”, as denoted by Rorty (1989), rather than the “Truth“ conceptualized when relying on language as a representation of the external world. Consequently, such case studies elevate the role of the human agent and her reliance on language in order to create congruent intra-vocabulary relationships between different concepts.

4. Research setting

The empirical material that forms the basis for the first three papers has been collected from two industrial sectors with very different characteristics: cleantech and district heating. The Swedish cleantech sector is characterized by many small firms active on an often intensely competitive international market, whilst the district heating sector is dominated by large utilities with a regional or local natural monopoly. This chapter will provide the reader with an introduction to these two sectors.

4.1 Cleantech

Cleantech is a concept that has been difficult for both researchers and professionals to pin down. The term has been used liberally when discussing technological and business solutions with some kind of environmental approach. At its core, cleantech is an abbreviation of the words clean technology, but cleantech has come to mean something more than that which is suggested from the mere amalgamation of those two words. Cleantech Group, the organization that was among the first to use the term (Nutek 2008), presents it not only as category of environmental technology but also as a type of technology that is more attractive to investors than traditional environmental technology. According to the group there is a distinct difference between traditional environmental technology and cleantech. Traditional environmental technology produces “end-of-pipe” solutions, while cleantech increase efficiency and productivity and as a result have a broader range of applications and bigger market potential (Cleantech group 2014). Cleantech Group defines the concept as technology and business models that offer competitive returns and value, while solving environmental

problems. The definition covers a heterogenic mass of technologies, services and processes which means that rather than being a single industry cleantech should be seen as a sector that spans several industries (Nutek 2008). The term clean technology had been used before Cleantech Group picked up and refined it. Gouldson & Murphy (1998) compares clean technology with pollution control technology and found that cleantech are processes and products that are primarily created with a non-environmentally related goal but have environmental concerns integrated in design and application. Cleantech therefore reduces or avoids environmental impact that would have been caused otherwise. The definition that Gouldson & Murphy (1998) utilizes is almost synonymous with that which the Cleantech Group presents. Both definitions emphasize the system integrated nature, a non-environmentally related origin and environmentally beneficial effects. Cleantech may thus be defined as a process integrated solution (technological or methodological) that is created with a non-environmental purpose yet have beneficial environmental impact when compared to existing alternatives.

In a study of cleantech, Kemp, et al. (1992) found that the introduction of cleantech in production initially entails higher costs than traditional environmental technology and that it can be difficult to adjust the production process in accordance with the new technology. Furthermore, Gouldson & Murphy (1998) claim that the integrated nature of cleantech means that it is costly and complex to implement and also demands more maintenance than traditional control measures. The authors also drew the conclusion that the market mechanisms for cleantech are different compared to that of control technologies. According to Gouldson & Murphy (1998), pollution control technologies have properties that make customers and suppliers easier to identify. These technologies are also easier to implement, which means that control technologies are quicker and cheaper than cleantech. These conclusions are not supportive of the Cleantech Group's statements about the attractiveness of cleantech to investors, but the properties and effects of control technology that Gouldson & Murphy (1998) describe as positive, are mainly short term. The authors assert that in the long run, cleantech offers higher efficiency and is the superior alternative both economically and environmentally. Nevertheless, there exists an often overlooked conflict between control technologies and cleantech, a conflict that Kemp & Volpi (2008) accentuate. They point to the possibility that the spread of one type of environmental technology can occur at the cost of the spread of the other type of technology. It is necessary to point out that from a sustainability perspective control technologies are inferior since no process that utilizes "end-of-pipe" solutions can become fully sustainable.

4.1.1 Cleantech in the Swedish energy sector

It is worth noticing that besides having an already high marginal abatement cost due to high technological maturity in the energy sector and a strict CO₂ tax (McKinsey 2008) Sweden has two active MBIs (the European Union's Emissions Trading System – EU ETS, and the Tradable Green Certificates quota system – TGC) that increase the cost further. The cleantech market in Sweden has thus potential to support technologies that would not be competitive elsewhere.

A review of governmental work on environmental technology show that agencies and institutions do not distinguish between cleantech and control technologies (Nutek 2008). Instead the term environmental technology is used as a blanket term for both categories of technology. In light of the distinct differences between the two categories of technology this is disappointing. In the business sector, the situation is different and the term cleantech is frequently used by businesses that see their work as different from that associated with traditional environmental technology (Nutek 2008).

Because of the use of a single label – environmental technology – for the two technological categories, statistics do not differentiate between firms producing traditional environmental technology and cleantech. Consequently, statistics gathered by the Statistics Sweden (SCB) cover both firms that produce control technology and cleantech. SCB use a definition of environmental technology that covers goods, systems, processes and services that generate distinct environmental benefits when compared with existing solutions. Besides companies with a clear focus on environmental technology, the statistics also cover firms with a focus that is not primarily directed towards environmental technology. As a result the number of firms that work with cleantech may be significantly smaller than what is stated in official statistics. As described in the first paper, the ambiguous use of labels in the environmental technology sector meant that it was difficult to find firms that qualify to be labeled as technology developing cleantech firms.

Official statistics over the Swedish cleantech sector presented by Swentec (2010) show that in 2008 there were 6 542 firms with a turnover of SEK 135 billion and 41 807 employees. Among these firms 84 per cent had 0-10 employees and a further 12 per cent had 11-49 employees. In total 96 per cent of the firms are small sized according to the EU's classification of SME firms. This fit well with the prevalent image of cleantech firms as small technology developing ventures. The four sub-sectors with the largest turnover are, in descending order: i) waste & recycling, ii) sustainable

construction & energy efficiency, iii) bioenergy and iv) solar, wind and hydro power. The last two categories are related to energy production and benefit directly or indirectly from MBIs. In 2008 firms in the bioenergy sector had a total turnover of SEK 16 313 million and 2804 employees, while firms in the solar, wind and hydro power sector had a turnover of SEK 13 227 million and 2541 employees. Despite the comparatively small size of the firms and the sub-sectors, there are great expectations on technologies that these firms produce. The technologies developed in these sub-sectors are not only expected to solve environmental and social problems, but also to contribute with economic growth (Swentec 2008).

4.2 District heating

The Swedish district heating sector is an integral part of the Swedish energy system and has its roots in a unique and long history, rich with transformational events, influenced by local, national and global politics. This brief overview introduces the main technological and social aspects that characterize the sector.

4.2.1 Technological characteristics

District heating plays a significant, but often overlooked, role in the Swedish society. Swedish district heating firms generate large quantities of heating and electricity through management of resources that are often residuals from industrial production processes or consumption. District heating provide 50 per cent of all space heating in Sweden (Aronsson & Hellmer 2009). The production of district heating is conceptually based on different scale effects in heat generation. Cost efficiency and fuel flexibility have made district heating technology popular in many countries with considerable demand for heating solutions (Fredriksen & Werner 1993). Heat is produced in mainly three ways: combustion of biofuels, combustion of solid waste and utilization of industrial waste heat. Other ways of generating heat, such as solar or geothermal power do exist, but are rarely used (Granström 2011).

Econometric analysis conducted on the sector by Granström (2011) shows that the choice of fuel has an impact not only on the configuration of the plant, but also on the bottom line; since it is in general the largest direct and indirect cost associated with production. The same study showed that firms with larger production facilities can keep lower tariffs both due to production scale and the creation of revenues through electricity generation by using co-generation (which requires a relatively large production facility). Bio-fuels (pine-tree oil, different types of refined and un-refined wood based fuels and

peat) tend to be more popular among smaller firms while the use of waste (raw waste and gasified waste) in the production process has the reverse relation. This may be explained by the fact that waste is a complex fuel (Furtenback 2009) and often demands larger facilities. Nevertheless, waste fuel does have benefits. Since waste produces dirty byproducts and has an inherently mixed quality, firms get compensated for handling waste fuel. The utilization of industrial waste heat (heat generated by a third party actor that is then acquired by the district heating firm and transformed into district heating) is highly dependent on having an often industrial supplier in the vicinity who is attracted by the prospect of selling excess energy to the district heating firm. Owing to technological issues, industrial waste heat is not an option when desiring to build a combined heat and power plant. Consequently, there are few firms in Sweden that rely on industrial waste heat as their main production technology. Producers of industrial waste heat have also been asking for higher compensation and have been one of the driving forces behind the third party access initiative (Söderholm & Wårell 2011).

The production of district heating fluctuates not only due to changes in demand but also due to factors that are of a more sporadic nature. In the case of very low outdoor temperatures or a failure in the main production system, different types of backup systems kick in. Despite the widespread reliance on fossil fuels for such systems, the district heating sector has during the last forty years managed to become radically more emission efficient in the sense that the amount of CO₂ per MWh heat produced has fallen from 350 kg in 1970 to 50 kg in 2007 (Werner 2007).

A distinct feature of district heating is the distribution network. It is bulky and costly and district heating therefore have a tendency to form natural monopolies. This enables monopolistic behavior when it comes to pricing and customer management (Sjödín & Henning 2004). Consequently there has been pressure on especially firms that utilize industrial waste heat, to open up distribution systems for third party access (Söderholm & Wårell 2011). In competition with other alternative heating technologies, it is the distribution system that is the main additional cost. According to Persson & Werner (2011), this implies that the competitiveness of district heating is dependent on two major cost components: i) the cost difference between centralized and decentralized heat, and ii) the distribution cost.

4.2.2 Sector and pricing characteristics

The first district heating systems in Sweden were built shortly after the Second World War. In the years that followed Swedish municipalities initiated and expanded local and regional energy systems all over the country (Magnusson 2011). During the expansion phase the implementation of district heating benefited from different types of institutional support, such as mandatory connection clauses in zoning schemes (Summerton 1992). National policy decisions based on the desire to decrease the dependency on oil and to phase out nuclear power also furthered the expansion of district heating systems (Magnusson 2011). According to Aronsson & Hellmer (2009), the market share of space heating rose from 22 per cent in 1978 to over 50 per cent in 2007. This meant that locally produced energy gradually became more or less equated with district heating – and in many cases - municipal energy firms became more or less synonymous with being district heating producers.

During the 1980s the attitude towards central planning and bureaucratic solutions to energy related issues change dramatically (Högselius & Kaijser 2010). Municipal ownership of energy utilities was targeted by different regulatory changes that worked in tandem with a market liberalization wave that swept over Sweden. Municipally owned utilities were often transformed into firms and with the deregulation of the energy market in 1996 many municipalities sold their utilities in order to ameliorate financial problems (Högselius & Kaijser 2010). Despite the changes that happened during the 1990s many municipalities still held on to their district heating production. Today 60 per cent of the 220 firms producing district heating in Sweden are still wholly owned by municipalities and another 17 per cent are co-managed by municipalities and other actors; while the remaining 23 per cent are owned by private, state or other interests (Granström 2011). Looking at the facilities connected to these firms, the numbers are somewhat different. Firms that are wholly or partially municipally owned, possess 74 per cent of the distribution networks and sell 66 per cent of the delivered heat (Aronsson & Hellmer 2009).

The pricing of district heating is a topic that has sparked heated debates. Due to regulatory and production factors pricing of district heating is done in administrative districts called pricing areas. A firm may have several price areas with differentiated prices due to different production and delivery factors. Granström (2011) recounts that there in Sweden are 520 distribution nets divided in 420 price areas. Within a price area there is only one seller, leading to the creation of a monopoly. In the case of a monopoly, economic

theory points to the potential of allocative inefficiency, meaning that the pricing behavior of the firm may hurt not only the consumer, but the whole economy, by keeping production volumes down and prices up (Sjödin & Henning 2004). Before the deregulation of the energy markets in 1996, prices were set based on a cost principle (Granström 2011). Since the deregulation rising prices have been the trend within district heating. This has caused considerable discontent among certain customer segments (Söderholm & Wårell 2011). Studying the annual price increases from the 1996 and onward, reveals that the average price increase has been 37 per cent, which is three times as much as the inflation rate during the same period (Nils Holgersson review 2012). Today alternative pricing is a common pricing policy (Sjödin & Henning 2004). Under such a pricing regime the price substitutes, such as electric and oil boilers, are what managers orient prices against. Despite the freedom to set prices and the alternative pricing procedure tariffs are today to a large degree reflecting different production, strategic and market factors (Granström 2011). This is understandable since tariffs, or pricing models as they are frequently called, often are constructed around production factors such as a variable heating cost, a flow cost for pumping the water and a fixed charge proportional to a subscribed capacity (Difs & Trygg 2009). Today price competitive substitutes have entered the market, leading to researchers such as Difs and Trygg (2009) to explore the possibility and effects of the use of marginal cost pricing. Their work show that marginal pricing has several systemic and production benefits, but due to the inherent complexity marginal pricing is challenging to implement.

5. Results

This chapter presents the results from each of the four papers that constitute this compilation thesis. The results answers the research questions posed in the introduction and each of the papers represents a step towards fulfilling the general aim of the thesis.

5.1 Detrimental influence from MBIs

In the first study the question whether if and how MBIs influence business models was explored through the use of accounting data and interviews with managers of seven cleantech firms. Interviews were also made with representatives of interest groups representing member firms from the cleantech sector and investors in early phase cleantech ventures. A business model framework developed by Morris et al. (2005) was used to construct

interview questions and assess the influence of two Swedish MBIs on the case firms.

The business models of the case firms had several traits in common. The firms sold a product or service that was adapted extensively to customers' requests. The customers were small or mid-sized energy producers but also smaller firms that needed off-grid solutions. Most sales were done abroad. The customer value was linked to five areas: i) adaptability, ii) policy support, iii) cost efficiency, iv) environmental friendliness and v) cutting edge technology. The managers viewed the first two types of value as least important for their customers. The firms had network based business models with production and research functions often being outsourced or externalized. Certain functions, such as the installment of machinery, were completely managed by third parties. Payments for such functions bypassed the cleantech firms entirely and as a result the balance sheets of these firms was smaller than what otherwise would have been the case.

Due to the nature of the MBIs their influence could be expected to be most easily recognized on the customer and investor sides of the business model. In the interviews the managers described influence linked to five areas: i) a weak support for customer demand due to low price; ii) high risk, in the sense that there was a high political risk and uncertainty about future prices; iii) negative influence on the relation to investors; iv) lacking support for competence and production development; and v) negative effects due to the exemption of industries from the MBIs or related environmental policy systems. The managers insisted that the Swedish MBIs were harming rather than helping firms in their situation. The results indicate that the managers do not rely on the Swedish MBIs to support them when developing their businesses and that this is particularly the case when gathering external capital. Investors made a point of how they avoid investing in firms with business models that rely on MBIs – or for that sake – other environmental policy instruments. The representatives of the interest groups were ambivalent about if MBIs influenced business models or not. They expressed a belief that it was possible that such influence could occur but saw it as disadvantageous if it did. The five areas of influence identified in the interviews are all linked to three design features common to the two MBIs: i) inherent price volatility, ii) continuous systemic revision, and iii) the influence of political bargaining on policy implementation in issues such as exemption of firms or industries.

The paper presents reasons for why Swedish MBIs fail to support the business models of small technology providing cleantech firms. This study

strengthens the results of Bergek & Jacobsson (2010) by showing how the low general support, together with particular design features (the inherent price volatility, the political risks associated with the MBIs and the decision to exclude certain firms or industries), make managers in the case firms view the MBIs as having adverse effects on their businesses.

5.2 Diversified approaches to stakeholder inclusion

The second study explored how managers include stakeholders in strategy goal and process, through an analytical framework based on stakeholder saliency (Mitchell et al. 1997). Through interviews with managers from ten municipal district heating firms, workshops, group discussions and the analysis of homepages and annual reports; it was found that the firms include less salient stakeholders in their goals than in their strategy processes. The inclusion was motivated by three types of reasoning: idealistic, instrumental and strategic.

Managers attached different importance to different parts of the strategy work, which then enabled the categorization of core and peripheral strategy processes. All but three firms focused exclusively on including definite stakeholders in their core strategy processes. Definite stakeholders were owner representatives, big or otherwise important customers and key staff who were seen as having major influence on the future of the firm. The additional stakeholder groups that the three firms engaged with in their core strategy processes were smaller customers, suppliers and representatives from other district heating firms. The managers from these three firms were the only ones that used idealistic argumentation when describing why the expectant stakeholders were included.

Only two firms limited their goal statements to definitive stakeholders however, the types of value directed towards expectant and latent stakeholders were not as tangible as the value directed towards the definitive stakeholders. Definitive stakeholders were associated with financial resources and quantitative goals such as financial, environmental and productivity goals. Expectant stakeholders were associated with some quantifiable goals, such as a share of the budget spent on activities directed towards such stakeholders and environmental quantitative goals; but also more broad and ambiguous goals. Latent stakeholders were more or less only linked to qualitative and often ambiguous goals such as “a clean environment” or “showing respect for [the stakeholder group]”. Accordingly the value that was directed towards the less salient groups is different from that which is directed towards the definitive stakeholders. The inclusion of

less salient stakeholders in the goal dimension may therefore – in comparison with process inclusion – be explained by lower costs (due to the association between less salient stakeholder groups and non-pecuniary goals), and the ease of inclusion (due to less interaction between strategy makers and stakeholders).

The inclusion of expectant stakeholder by the three firms into the core strategy processes can be seen as a step towards a more participatory strategy creation and business model renewal. In contrast, the way that the rest of the firms dealt with the inclusion of stakeholders might be labeled as “greenwashing”. This is due to the use of ambiguous and vague goals and the reliance on peripheral activities for interaction with less salient stakeholders. The use of staff as proxy agents for stakeholders is also questionable since it may mean that the firms fail to gain the instrumental and strategic value of stakeholder inclusion that the managers themselves desired.

The paper links research on inclusion to a conceptualization of strategy based on the dichotomy of process and goal. It shows how firms may use inclusion in relation to these aspects of strategy differently and for different reasons.

5.3 Lessons from stories about business model formation

The formation of a business model is thought to be crucial for firm performance (Teece 2010) and it is both influenced and portrayed through narratives, but narratives are rarely explicitly relied upon when studying business model formation. The third paper proposes a framework for the analysis of narratives associated to business model formation. The study was conducted on narratives about business model formation gathered from interviews with 22 managers working in the municipal district heating sectors.

Through the interviews 270 narratives were collected. Out of those business model formation narratives 161 were success stories, 55 ended in failure and 54 had a neutral ending. Focusing on the stories that bring a moral to the listener the analysis connected the outcomes with properties of the narrative terms thought to be prevalent in all narratives. The analysis shows on the one hand, that managers in the municipal district heating sector tell success stories that are likely to be associated with: i) agents that are malleable or willing to adapt, ii) an accessible scene where agents freely may enter or leave, iii) instruments such as pricing models which are visible and readily

understood and iv) a purpose which includes relevant agents in the value production. On the other hand, the narratives with negative outcomes portrayed: i) stubborn, inflexible agents, ii) shielded scenes, iii) obscure means and iv) value production which focused on a single or exclusive set of agents. Based on these narratives it appears as if the respondents describe key stakeholders, such as customers and owners, as partners in the development of the business model. Furthermore, the respondents see it as important for themselves and other representatives from their firms, to be pedagogical, inclusive and open in their interaction with these agents, revealing a sensitivity that does not fit well with the traditional image of a monopolist. In its totality the socio-cultural context that the managers describe in relation to business model formation appears to be permeated by democratic and communal values. These values also act as guides for how business should be conducted and for what a successful deal consists of.

The paper proposes that a narrative analysis of business model formation can cast light on underlying definitions and themes in a way that connects well with earlier research on the business model concept. A narrative analysis produces plausible explanations of how managers both view themselves and different events (Czarniawska 2012, Feldman et al. 2004). The study therefore demonstrates how a narrative analysis of the formation of business models can be used to reveal how the managers motivate action.

5.4 A non-structuralist perspective on the business model

The fourth paper suggests that the RCOV framework, proposed by Demil & Lecocq (2010) as a way to merge change and stasis oriented approaches to the study of business models, fails to fully achieve its goal. An analysis of the RCOV framework shows that it has six features which, in the light of research on ontology and managerial sensemaking could be thought of as shortcomings. The shortcomings also appear to be shared with other contemporary business model frameworks. The shortcomings are: i) a structuralist perspective on the relation between model and reality, ii) an ambiguous conceptualization of change, iii) a reactive view on the process of business model formation, iv) a lack of reflexivity between the firm and its environment, v) over-simplification of manager cognition, and vi) a strong link to a theoretical tradition of competitive advantage research that influenced the resource based view.

In an attempt at finding a way forward and surpassing the issues related to the six shortcomings an alternative, non-structuralist framework is proposed. The framework is based on Kuhn's (2008) communicative theory of the firm

and the conceptualization of the business model as a firm specific type of authoritative text. An authoritative text is created through an organization centered textual saturation process and manifests itself through dialogues on specific areas of concern related to the business model concept. The areas of concern are derived from business model research and can be divided as follows: i) the value receiver (e.g. the identity and motives of the one who consumes and co-creates the value), ii) the value composition (what the value consists of), iii) the value construction (how the value is produced and delivered), iv) the value realization (how the value is realized and transferred into other forms, especially money) and v) the value continuation (how the firm continues to deliver value to its stakeholders). By viewing the underlying business model as an authoritative text the purpose of the business model concept should be to explore, influence and create perceptions related to the five areas of concern.

The paper contains a discussion on how implicit assumptions about business model frameworks, models and theory have influenced definitions of the business model. It also presents a new perspective on the business model concept that takes its inspiration from the communicative theory of the firm and a non-structuralist standpoint on models.

6. Conclusion and reflections

The four papers that constitute this thesis represent attempts at developing new ways of looking at business model formation and the business model concept. In accordance with the general aim of the thesis these two research topics have been studied while relying on theories and methods that are in some way linked to a sensemaking perspective on managerial cognition and organizational development.

Discussing the business model concept per se first, the framework suggested in paper four strips away the normative theoretical embellishment that is added to business model frameworks and presents the business model as basically consisting of five managerial areas of concern. These bear resemblance to the three key questions on which strategic planning builds upon, namely: Where are we now, where should we be heading and how do we get there? The business model can be thought of as manifesting itself in two of these questions: What the business is and what it should be. First, since a business model that is in place can be thought of as realized strategy (Casadesus-Masanell & Ricart 2010) the proposed framework deals with the questions of where the organization is and how it will continue to be where it

is. Second, an imagined business model, i.e. one that presents a view of how the business could be, deals with the question of what the business should be like. The business model does not deal with the question of how to get there. That, I argue, is a purely strategic question. Any presentation of an intermediate business model, in order to take the business from one state to another, is purely a variation on the first two questions. Consequently the business model has an important role as a communicative device when dealing with the present or future state of the firm.

The communicative perspective on the business model puts sensemaking at the core of strategy and business model work. The insertion of sensemaking theory in business model research has far reaching ramifications for both ontological and epistemological issues. Sensemaking elevates the social construction of value and explores the building of motives for actions. The role of language in communication is not seen as secondary to the transmission of information, but rather as constitutive of communication and therefore thought of as playing a critical role in motivating action (cf. Kuhn 2008). In sensemaking research rationality is viewed as contextual rather than universal (Weick 1995). It also adheres to the view of interaction and communication between people as the principal locus of the firm (cf. Brummans et al. 2014). Interaction and narration becomes central phenomena through which managers co-create their worldviews and make sense of the surroundings (Hummel 1991). If the firm is viewed as an evolving communicative relationship between individuals – both structuralism and representations based on structuralist arguments – become incompatible with the nature of the firm and a poor basis for a conceptualization of the business model.

Turning to the issue of business model formation the communicative perspective on the business model implies that the creation of authoritative texts becomes an overarching goal of the business model formation process. When considering sensemaking activities involved in the creation of authoritative texts, it is not only the individual's attraction to congruence that will guide the business model formation, but also the collective search for congruence of interest between stakeholders. This links the business model formation process to the dialogical interaction between firm representatives and its stakeholders. Consequently, the business model formation process is a social and constantly ongoing phenomenon. The business model is therefore in constant flux and its formation is out of reach of any single stake- or shareholder that may aspire to take full control over it. This does however not mean that certain stakeholders or actors cannot dominate the formation process. On the contrary, the dominance of powerful actors over

the business model formation processes is probably the norm rather than the exception.

Comparing the sector specific results it appears as if managers working in cleantech and municipal district heating to some degree face similar challenges when deciding on a business model. Both sectors have complex strategic landscapes with features that are common to the Swedish setting, but there also exist challenges that are distinct to each sector. Municipal ownership, for example, adds dimensions to the managerial work that are largely unheard of in the private sector. Managers in the municipal district heating sector face stakeholders with unique features compared to those in the private sectors. The local bias of municipal management as well as the high capital cost associated with district heating technology means that it is difficult to disentangle the firm from the local context. These features shape district heating into a complex socio-technological multi-stakeholder system that has to deal with the local challenges or lose legitimacy. As discussed in the second paper, the challenge of running a municipal district heating firm can be tackled by including stakeholders in different dimensions of firm strategy. Previous research show stakeholder inclusion increases the complexity of managing such firms. Nevertheless, in paper three it is apparent that the managers from the case firms present narratives in which success is contingent on democratic values and flexibility. The results in the second and third paper therefore partially contradict each other. The inclusion of stakeholders in core processes is limited to traditional, high saliency stakeholders, but the narratives that managers tell portray ideals of openness, inclusiveness and flexibility. This might indicate that managers of the case firms do not see the narrowing down of the number of interfering factors, such as stakeholders, as an alternative. Such a worldview is similar to that described by the managers from the three firms that relied on idealistic reasoning when justifying the inclusion of less salient stakeholders in the strategy creation. It is therefore plausible that the inclusion of less salient stakeholders will spread. District heating is dependent on long relationships between firm and stakeholders. As society changes, stakeholders may communicate to managers how relationships should change in order for the firm to prosper. If the business model is, as proposed in the fourth paper, conceptualized as an authoritative text, the speculations formulated above should be possible to trace in changes in the business models of municipal district heating firms in the coming years.

The main tool of inquiry for the empirical studies has been the interview. It has been relied on both as a source for empirical material and as a source of inspiration (cf. Alvesson 2011). Separating the researcher from the interview

is difficult. Consequently, the development of my own understanding of interview methodology has had an impact on the material that has been generated through interviews. This is only one out of many of the personal facets of qualitative research. Research centered on the sensemaking and narrative dimensions of the human experience build on the conviction that such personal facets do not diminish the worth of social research but it cautions that they have to be handled with diligence, respect and transparency (cf. Czarniawska 2012, Alvesson 2002, Weick 1995).

Looking back on the research process it is clear that it was in some cases shaped by chance events. Some of my ideas, as well as interpretations of both concepts and the empirical material have been inspired by direct and indirect meetings with people that were not thought of at the outset of the studies. These meetings have come about through first hand contacts but also through written sources. Arranging the encounters into a coherent account meant relying on a retrospective reconstruction of events – my own personal sensemaking – that in some ways feeds into the work that you have in front of you. Even if the encounters were to some parts random the processes in which I encountered them was not. The research process, as discussed in the research approach, has been a guiding beacon which has facilitated the work and enabled the assessment of when to keep on digging and when to stop.

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Paper I

Paper I

Market-based environmental policies and business models of technology providers: The Swedish cleantech venture experience

Abstract

The business model is a new analytical concept which has been overlooked in research on sustainable innovation and environmental policy. A successful business model is thought of as being adapted to the business environment. Supportive institutional factors such as environmental policy instruments may foster dependency by influencing business models. A dependency is detrimental to the competitive power of a firm when policy instruments change or if the firm needs to expand to markets where the policy instruments do not apply. Market-based instruments (MBIs) are argued to be the most prominent and widely endorsed type of environmental policy instrument. This study explores how two MBIs, the European Union's Emissions Trading System (EU ETS) and the Tradable Green Certificates quota system (TGC), influence the business models of seven case firms in the Swedish energy-related cleantech sector. The results show that the business models of the case firms are not dependent on the Swedish MBIs. However, the MBIs fail to support the firms and are seen by both managers and investors as having a negative influence. The negative influence is linked to three types of design features common to the MBIs: an inherent volatility in the pricing mechanisms, inherent regulatory uncertainty due to constant revisions, and the possibility of political bargaining which resulted in the exemption of certain customer segments from the MBIs or other environmental regulations (e.g. carbon tax).

Keywords: market-based environmental policies, business model, cleantech

Introduction

Scholars in the field of sustainable innovation research have suggested that the business model concept should be brought to the fore of academic research within that field (e.g. Boons et al. 2013, Boons & Lüdeke-Freund 2013). Being a new and promising analytical concept from the field of strategy research (Zott et al. 2011), it is thought that this model will help researchers to get to grips with previously ignored aspects of firm-centered sustainable innovation (Boons et al. 2013).

By introducing the business model concept into the field of sustainable innovation research, one increases the conceptual complexity of the relationship between innovation, firm and market. In order for a firm to produce value from an innovation it needs to be turned into a product and commercialized on a market, or to be merged with the production or service delivery system of the innovating firm (Litan & Song 2008). The commercialization of sustainable innovations is often complex and time-consuming and should not be taken for granted (Sartorius 2006). Innovation research indicates that a critical step in the commercialization process is the creation of a business model (Chesbrough & Rosenbloom 2002). The business model represents the business logic that underlies the continuing existence of the firm and defines how a firm produces and delivers value, as well as how customers' payments are turned into profits (Magretta 2002). If a firm fails to develop a business model, their product will never make it to the market. Every firm active on a competitive market utilizes a business model, explicitly or implicitly (Teece 2010), and a business model must be viable within the business context in which it is introduced or it will be outperformed by competitors (Morris et al. 2005). A failure to develop a viable business model may explain why some sustainable innovations which have been developed into functioning products do not turn up on markets (Boons et al. 2013).

Due to concerns for environmental degradation and the effects of such processes on human and animal life, sustainable innovation is of great interest not only for researchers but also policy makers. In order to support sustainable innovation, policy makers have a range of policy instruments at their disposal. Command and control regulations have been a prominent category but concerns for efficiency (Jaffe, et al. 2002) and technology neutrality (Azar & Sandén 2011) – i.e. the possibility that policy makers support the “wrong” type of technology – have led researchers to endorse market-based instruments instead (Kemp & Pontoglio 2011). Market-based instruments (MBIs) provide incentives for or against certain behaviors through the workings of market signals rather than explicit regulations (Stavins 2003). MBIs administer property rights and let market actors set a price for those rights (Tietenberg 2010). Firms that produce innovations that decrease costs associated with such property rights will, *ceteris paribus*, see the value of their innovations increase when an MBI is introduced. The increased value associated with the property rights will boost the diffusion of sustainable technology and attract investments in research and the development of sustainable innovations in a manner that is cost-efficient for society (Rennings 2000). Policy instruments such as MBIs have

geographical and juridical limits and thus affect markets differently. They may vary over time due to many factors such as changes in politics, legal institutions or the underlying regulatory framework. Business models, in contrast, are inherently difficult to change once they have been established (e.g. Chesbrough 2010). It can also be challenging for managers to handle multiple business models within one firm (Velu & Stiles 2013). Consequently, it is possible that MBIs foster dependency, something that would have a negative impact on the diffusion of sustainable innovations.

The question of whether and how MBIs influence business models in technology providing firms has been left unexplored up until now. There are two likely reasons. First, research on sustainable innovation and diffusion has largely neglected issues related to business model research (Boons et al. 2013, Boons & Lüdeke-Freund 2013). Second, economic theory more or less dominates the study of policy instruments (Kemp & Pontoglio 2011), and since the design of a business is often assumed to be a trivial matter within the field of economics, the business model concept is not established within that field (Teece 2010). By examining the potential influence of MBIs on business models, this study introduces an analytical unit previously left out of such research.

The purpose of this study is to examine whether and how MBIs influence business models in firms that supply sustainable innovations, by studying the business models of a number of firms operating in settings with active MBIs. At present MBIs are mainly directed towards energy-related industries. In 2010 the energy sector was the largest source of greenhouse gas emissions, answering for 35 per cent of total emissions (UNEP 2012). Innovations that reduce emissions from this sector have the potential to contribute greatly to the reduction of total emissions. Within the energy sector, cleantech, short for clean technology, is a category of new technology that has received much attention from investors and policy makers in the U.S. (Hargadon & Kenney 2012). Taking any technology from lab to market is difficult but cleantech ventures face particular challenges. Many cleantech ventures develop laboratory findings into commercial products and can therefore be labelled technology providers. That is a route which is fraught with uncertainty about outcomes and results in an often long time-span between investment and pay-off (Malek et al. 2013). Hence, cleantech is often costly which means that the implementation of such technologies is dependent on a high marginal abatement cost. The marginal abatement cost in the Swedish energy sector is particularly high both due to high technological maturity of the sector (McKinsey 2008) and due to the fact that it is targeted by several

environmental policies. The Swedish energy sector has two active MBIs, the European Union's Emissions Trading System (EU ETS) and the Tradable Green Certificates quota system (TGC), as well as a carbon dioxide tax. This makes the Swedish energy related cleantech (EC) market a case of particular interest when studying technology providing firms working under a market-based environmental policy regime.

The rest of the paper is structured as follows. The second section contains a presentation of research on policy and the business model and discusses how those fields relate to each other. The third section describes the Swedish setting and explains why Sweden is a critical case when studying MBIs and EC ventures. The fourth section contains the research approach, a description of how firm selection was conducted and an account of the methods applied in the study. The fifth section contains the results, which are divided into two parts: a presentation of the business models looked and a description of how the MBIs influenced them. The results indicate that the business models have not become dependent on the Swedish MBIs. The results also show that the MBIs have design features that are detrimental to the case firms. In the sixth section the results are discussed and compared with other research on MBIs and a number of conclusions are made. The seventh and final section summarizes the key findings of the study.

Theoretical framework

Due to its recent emergence the business model has not yet been fully integrated with dominant theories, neither in the field of business administration research nor in economics (Zott et al. 2011). It is therefore not surprising that the issue explored in this paper has not been studied earlier. The business model has been used to evaluate policy within the information communication technology (ICT) industry (Poel et al. 2007, Stewart & Zhao 2000). The studies showed that because the business model concept is well suited to provide structure to the complex realities that managers face it can be used as a case study methodology for policy makers (Poel et al. 2007) and as a tool to understand firms that do not follow a previously established business logic (Stewart & Zhao 2000). The business model might be thought of as a multi-theoretical or interdisciplinary approach to the study of how business works. There exist several different business model frameworks that can be used when studying business models and these are often adapted for a particular use (Demil & Lecocq 2010). Morris et al. (2005) go through a range of definitions of the business model, links the concept to several theoretical streams and create a framework for the study of ventures such as cleantech firms. This "entrepreneurial

framework” consists of six components that characterize a business model and are thought to be common to all venture types. In this paper the framework is relied on due to its high flexibility when it comes to input variables and analytical depth.

The business model is used to explain what the actors involved, such as customers, partners and investors, need to do in order for a business to operate. As such it is open to different theoretical views on how those actors function (Morris et al. 2005). MBIs should, theoretically, only influence diffusion and innovation indirectly through the market price of the property rights that an innovation is linked to. The existence of a price on the property rights may attract firms to create business models and offer products to customers who want to reduce their costs associated with the property rights or gain revenues through the MBIs in other ways. The clean development mechanism (CDM) is an example of an MBI that has created new market space for a range of business models (Schneider et al. 2010). If an MBI is too weak, business models fail to develop. The stalled development of carbon capture and storage (CCS) technology is partially blamed on weak MBIs (Kheshgi et al. 2009). Due to the influence on the price of an innovation MBIs can be expected to mostly affect relations to customers and investors. However, policy research indicates that it is not only the price level supported by the MBI that influences whether a firm will succeed, but also design features inherent to the policy instruments (Kemp & Pontoglio 2011). Design features – such as stringency, timing and credibility etc. – arise from the political, bureaucratic and legal work associated with the development, implementation and management of a particular policy instrument, and in this process design features influence the effects that the policy instrument will have on business-related activities (Kemp & Pontoglio 2011). Consequently, design features of MBIs incentivize certain ways of conducting business over others, i.e. they promote certain business models. Furthermore, since innovations are not necessarily developed by the firm that utilizes them, MBIs influence not only the business models of the firms who are directly targeted by such instruments but also the business models of the firms that develop innovations. From this it follows that if design features of MBIs influence the business models of firms that produce sustainable innovations in adverse ways, the diffusion of such innovations will suffer.

Research setting

The abatement cost for greenhouse gas emissions is particularly high in Sweden. Many energy producers have already reduced emissions

substantially, making further cuts costlier than in other countries (McKinsey 2008). This technological maturity means that there is a fundamental demand for EC technology and that there is an opportunity to develop business models that generate profit from the development and sale of such technology. Other factors that influence the abatement costs are the environmental policies that are already in place in the country. The energy-generating sectors, such as district heating, have since 1991 been targeted by a carbon dioxide tax which has increased abatement costs and reduced the use of fossil fuels. Production-oriented sectors with international competition were spared this cost increase, thus reducing its total effect (Bohlin 1998). In May 2003 the TGC scheme was introduced in Sweden. The TGC forces consumers and suppliers of electricity to buy a quota of certificates, which are distributed among the producers of renewable energy (Bergek & Jacobsson 2010). The system does not incur direct costs on emitters of greenhouse gases, but instead it can be seen as creating an alternative cost for producers using “dirty” sources, since the green certificates are an extra income for those producing renewable energy. Sweden entered the EU ETS in 2004, but those firms that were the object of the EU ETS were exempted from the carbon dioxide tax (Aldy & Stavins 2012). As a consequence of these parallel and sometimes overlapping instruments, the incentive to adopt innovations, as well as the price of EC-related innovations, should be relatively high. The Swedish market is a “critical case” (Flyvbjerg 2006) of a country where the business models of firms developing and commercializing EC innovations should be influenced by market-based instruments.

MBIs such as the EU ETS are supposed to work on the principle of growing scarcity, which results in a gradual rise in the price of emission rights. The gradual rise will, over time, force companies to introduce costlier and costlier ways of reducing carbon dioxide emissions (Tietenburg 2005). The Swedish TGC system is similar in its assumed effects, but it works through different mechanics. Renewable electricity is traded on the regular market and the purchase is coupled with a mandatory certificate which is traded separately, meaning that the system may be beneficial for innovation and cost-reduction through “double” competition in the electricity market (Bergek & Jacobsson 2010).

Both the EU ETS (Schmidt et al. 2012) and green certificates (Bergek & Jacobsson 2010) were initially thought to have a positive impact on the diffusion of green technology in general, and of EC in particular. The strength of the effects of these MBIs on diffusion has been debated vigorously (e.g. Kemp & Pontoglio 2011, Fischer & Newell 2008, Fischer et

al. 2003). The EU ETS is the largest implemented MBI (Skjaerfsetch & Wettestad 2008) but it has been criticized for its weak support for the diffusion of new technology (e.g. Kemp & Pontoglio 2011, Rogge et al. 2011).

The TGC is not unique to Sweden and the effects of such systems on emission reduction and support for diffusion have been examined in different settings (e.g. Verhaegen et al. 2009). Post-implementation evaluation of the Swedish TGC system (e.g. Bergek & Jacobsson 2010) has shown that it failed to fulfil its aims in connection with support for the diffusion of new innovations. This failure is believed to have been caused partially by misconceptions about what the TGC system would actually be able to achieve, and partially by flawed design features such as non-differentiated directed support for new innovations and low overall price impact (Bergek & Jacobsson 2010).

It is commonly thought that the invention and diffusion of new sustainable innovations is a paramount step in order to be able to reduce human impact on climate change (Schreurs 2012). Environmental policy is believed to be of great importance for the diffusion of such innovations (Mickwitz et al. 2008). Cleantech is sometimes used to mean sustainable technology in general, but a review of how the concept is defined by scholars (e.g. Gouldson & Murphy 1998) and practitioners (e.g. Cleantech group 2010) showed that the word has a more complex meaning. Cleantech is defined as a process-integrated product-centered solution to a problem that is not primarily environmental, but has environmental benefits in comparison with existing alternatives. It is noteworthy that cleantech can thus be a service or process. In 2008, the Swedish cleantech sector contained 6,542 firms with a total annual turnover of SEK 135 billion and 41,807 employees (Swentec 2009). It should be noted that the statistics includes firms that utilize cleantech as a means to produce energy and have little or no research and development of cleantech. As the sector experienced much interest from the government around the middle of the 2000s, a special delegation, Swentec, was formed to support the sector. Swentec mapped all the firms active in the research and development of cleantech. In 2010, there were 334 firms developing and selling energy related cleantech (Swentec 2010), which, for the purposes of this study, is defined as bioenergy, biofuels, energy efficiency, energy storage, hybrid systems, solar energy, water power, wind and wave power.

Research approach

In an evaluation of research on the impacts of environmental policies on innovation, Kemp & Pontoglio (2011) describe how the case approach to policy evaluation has the potential to answer many questions that are difficult or impossible to answer when relying on approaches that dominate environmental economics. The case approach is particularly good when reconstructing causal chains and it can also be used to reveal how choices are made in complex settings (Kemp & Pontoglio 2011). Firms that develop EC are active in a context that is mainly influenced by market, production and regulatory factors (Erzurumlu & Erzurumlu 2013). A research approach therefore needs to build on tools that capture all three of those factors. The business model inherently includes market and production factors (Teece 2010), and as shown by Poel et al. (2007), it can be used to study the influence of policy on firms.

Poel et al. (2007) evaluate the business model as an analytical tool and develop a research approach which has been adapted for this thesis. The approach allows for the identification of business models and the impact of policy on business models. The research approach consists of four steps. First, case firms were identified through the use of databases and the examination of characteristics of firms and technologies. Second, by applying a pre-existing business model framework to accounting data and information gathered through interviews with firm representatives, the business models of the case firms were modelled. Third, the general relationship between business models, market-based policies and the particular market situation was explored through interviews with third party specialists and desk research. Fourth, by comparing the material from the interviews with previous research the influence of the MBIs was assessed in each case.

For the first step it was necessary to go through an extensive selection process to find true technology providers with established business models that might have been influenced by MBIs. Since the study is concerned with the influence of market-based policies on business models, it follows that the study has been restricted to firms that were established just prior to the establishment or during the existence of the two MBIs affecting the Swedish market. In order to be sure that the firms had a fully developed business model, it was also decided only to study firms with sales. Since firms with several distinct branches may utilize different business models in different branches, it was decided to aim for smaller firms that rely on one business model only.

Table 1: Firm technology characteristics and interviewee position.

Technology	Annual turnover SEK M.	No. of employees	Position of interviewee
Technology and process development for biogas	0.5	2-3	CEO
Process developer and technology adaptor for biofuel-related technology	5	4-6	CEO
Biofuel-related combustion technology for heavy industry	1	2-3	CEO
External heat-driven engine for biofuel combustion and solar energy	8	15-20	Sales manager
Batteries and battery-related systems	4	10-15	CEO
Hybrid system solutions for wind power	7	2-3	CEO
Wind power generators	4	2-3	CEO

Out of 334 technology-developing firms that had been initially identified, the majority were excluded due to different reasons. In the end, a total of 25 small size proper EC ventures firms were identified. Representatives from these firms were approached about participating in the study and from among those, seven decided to participate (see Table 1). From the firms, six CEOs and one sales manager were then interviewed. Accounting data from the different firms was gathered and analyzed, together with a detailed review of the firm's stated sales strategy and the technological profile of their products.

The second step meant applying the business model framework provided by Morris et al. (2005) to the case firms. The framework is constructed around six fundamental questions (Morris et al. 2005:730). The questions are:

- How does the firm create value for the customer?
- For what type of customer does the firm create value?
- What is the internal source of advantage of the firm in relation to competitors?
- How is the firm positioned in the market in relation to competitors?
- How does the firm make money, i.e. price its products?

- What are the time, scope and size ambitions with the firm?

The questions have here been rephrased in order to be more explanatory to the reader. By answering the questions, Morris et al. (2005) suggest that it is possible to capture and describe the essence of a business model. For this study the framework was used as a basis for developing the interview guide, and as a guide for analyzing secondary information such as accounting data.

For the third step, interviews were conducted with four industry representatives from EC-related special interest groups, one member from the Swentec delegation and four representatives from private and governmental financial institutional investors lending to and directly investing in EC. The industry representatives were active in interest groups associated with firms active in the biofuel industry (representing 300 firms, both technology developers and users), the cleantech sector (representing 50 technology developing firms), wind power (2,000 firms, both technology developers and users) and venture capital (representing 800 firms). The four investors were a governmental institution providing loans and investments for early-stage high tech firms, a state-owned investment fund, a private investment fund and a trust dedicated to venture capital investments. Each the investors had a portfolio worth in excess of SEK 1 billion. The governmental institution had provided loans to four of the firms that participated in the study, while the state-owned investment fund had invested in two of the firms.

The interviews were recorded and transcribed with a low level of inference. The transcribed material was sent to the respondents for verification. Besides the direct answers provided by the respondents to the questions, the interview material was analyzed through a basic coding procedure where all references to particular features of MBIs and business models were sorted and categorized. These categories were then re-analyzed in order to bring forth interrelated common themes (Silverman 2006). Illustrative quotes were translated verbatim and then rewritten in order to make grammatical and logical sense. Text within parentheses has been added in order to clarify for the reader.

Business models and influence from MBIs

Apart from one firm that focused on service and adaptation of off-the-shelf products, the firms all had a product that was patented or protected in some other way (e.g. protected design or brand). The firms were presented by the managers as an administrative tool to take an existing product to the market.

The innovations had been developed into products before the firms were started. None of the firms funded research that was conducted in-house but three firms conducted research and development externally, together with partner firms or universities.

Despite the lack of in-house research all of the firms did conduct some kind of product or service development, but the level of complexity and intensity varied greatly. The development was necessary since all of the firms relied on one core product or service that was, at the request of customers, adapted extensively. Three of the product-oriented firms had employees who did small-scale assembling of parts bought from suppliers. Common to all of the firms was the utilization of sub-contractors or partnerships with foreign producers. The extensive use of sub-contractors and partners for different activities (R & D, production, assembly, delivery etc.) explains the low number of employees in the firms.

Sales were directed towards firms or local and national governments. The customers were mostly small or mid-sized energy producers, but also smaller firms that needed stand-alone energy-related solutions for their facilities. The products were custom-tailored solutions that are suitable for unique or extreme settings, often far away from energy grids or with requirements for specific functions or attributes. The managers described customer value – the value the managers believed that the customers saw in the products – relating to five areas:

- i) Adaptability: the firm tailors its product to suit the customers' needs.
- ii) Policy support: the product grants access to policy support such as the EU ETS, or green certificates, but also to other types of support in foreign markets.
- iii) Cost-related arguments: the product is more efficient and cheaper in the long run than existing alternatives.
- iv) Environmental profile: the product is a truly green alternative.
- v) High-tech profile: the product is on the cutting edge of technological development.

Out of these five areas, the first two were seen as the least important. The arguments behind this was that that competitors also adapt their products,

meaning that adaptability does not constitute a unique value-adding attribute, and that the policy support originating from MBIs was weak.

When discussing sales on the Swedish market and the relationship between customer demand and MBIs, managers stated that customers did not present the EU ETS or the TGC as one of the main reasons for their purchase. According to the managers, customers were instead mainly interested in an upgrade to new and efficient technology. Managers representing two of the firms saw the Swedish market as sufficient; the rest were active on foreign markets with more than half of their present or future expected sales going abroad. This internationalization was described as necessary both due to the small size of the niche markets that the firms targeted and due to the fact that certain foreign markets, such as Germany and Spain, have more generous policy support for EC.

The reasons that the managers gave for the success of their firms were fundamentally tied to three types of internal capacity: i) technological knowledge: an understanding of the technology itself and its systemic role; ii) entrepreneurial drive: the ability to make things happen; and iii) marketing: i.e. market identification and salesmanship. The managers saw it as important to build up competence in these three areas and presented them as essential for their ability to make sales. Technological knowledge was the basis for why they could do what they did. The firms functioned as hubs which coordinated the actions of actors that produced, installed or developed the product. This “spider-in-the-net” approach means that from an organizational standpoint, the ability to cooperate with other actors, as well as the ability to coordinate and incentivize other actors, are important reasons why these small firms stay in business. The managers described their marketing strategy as being characterized by a continuous search for and enticement of customers. The managers aspired for their firms to occupy a small and clearly defined niche where they could maintain technological leadership without much additional spending on research and development. Despite this strategy, several of the managers wanted to increase production, but had difficulties finding investors. Even though the firms mostly targeted foreign markets, capital was gathered locally, and several of the managers voiced concerns that investors lacked knowledge of foreign markets, making fund-raising difficult.

All of the firms sold their products outright, without other options such as leasing or renting. Apart from two producers of smaller equipment the products were very costly, often large structural installments sold in single

digit quantities. This would imply that considerable amounts of money should be passing through the firms, but as seen in Table 1 this was not the case. The choice to outsource production and installation functions and to take on the role of a hub meant that the lion's share of the cash flows associated with sales did not pass through the firms. Cash flows associated with installation, maintenance and financing were captured by other actors. This contributes to explaining the low turnover of these firms.

Policy influence

The interviews with the managers revealed that they saw their firms being influenced by MBIs in five thematic areas (see Appendix 1): i) weak support for customer demand, i.e. low price; ii) price volatility and political risk, i.e. uncertainty about price and the future of the MBIs; iii) negative influence on the relationship with investors; iv) a lack of support for competence and production development; and v) negative effects due to the exemption of industries from the MBIs or related environmental policy systems.

First, even though market boosting was thought to be the purpose behind the instruments, they failed to deliver that type of support to the markets that the firms targeted. Both the EU ETS and the TGC were seen as being too weak to help the firms, and neither the investors nor the managers saw the MBIs as realistic support for the firms. The Swedish market was described as difficult. Low energy prices and low support from MBIs meant that there was no or very low profitability in the market. The TGC system in particular was seen as a disappointment since much hope had been invested in this instrument.

Second, the MBIs in Sweden were seen as risks in two ways. First, the market price functions in both instruments were described as inherently volatile. Volatility made the instruments (particularly the EU ETS) into a distraction, since the instruments were believed to influence the firm's relationship with customers and investors. Several managers expressed a belief that strong price trends in either direction would make both investors and customers hurry to enter or exit the market, a behavior the managers saw as problematic. Second, both instruments were seen as unstable due to political factors. The time horizon of the instrument was problematic, especially for the firms that desired growth. Managers did not believe that the instruments would look the same in a couple of years and some even doubted their future existence. Both the EU ETS and the TGC were thought to be under pressure to change, but what these changes would mean for the firms was difficult for the managers and investors to evaluate. For the

managers this meant that they did not count on rules to stay the same and they did not dare to gamble on the instruments becoming more favorable.

Third, managers saw relationships with investors as being negatively influenced by the presence of the MBIs. Lacking knowledge about MBIs among the investors, as well as a general aversion towards policy among them, were two factors that were cited as reasons to why managers felt they could not base a business case on the MBIs.

Fourth, the MBIs were criticized for not offering a direct link between policy support and the development of firms. In the case of targeted support there existed a backdrop of different agencies and departments with which the firms could interact and, in some cases, get non-monetary support from. The market-based instruments offered no such functions, which meant that there was no support for the development of competency, either in relation to firm-specific issues or in relation to the goals of the policy. There was a fear that politicians would see the market-based policies as a mandate for not making other efforts. Despite being publicly supportive of the idea of an industrial base of innovative EC firms, politicians were described as washing their hands of responsibility for innovative EC.

Fifth, a feature that was seen as particularly damaging was the fact that certain industries had been excluded from either the market-based instruments or from related regulations, such as the carbon tax. The exclusion was described as a way of compensating those industries for the presence of international competition. The exclusion led to lower energy prices for these industries and negatively influenced the competitiveness of the solutions that the EC firms offered.

Views of investors and industry representatives

The investors stated that they influenced the formation of business models in firms that they invested in. They saw it as paramount to be able to influence managers to make better decisions in relation mainly to production and market strategy. This expectation is exemplified by a quote from an investment manager from one of the governmental investors, who in the interview described how he believes that managers sometimes fail to see what is best for the firm:

“We often have ideas about the business model already when we make the investment. So we go in and make adjustments at the start and often, very often, we have to do it again further down the road.

The way to be successful might be something different from what you thought when you set out.”

The investors expected to get the same returns from their investments in EC as from their other investments. They also stated that they did not give any preferential treatment to EC firms. The investors had negative opinions about the relationship between innovative firms and policy support in general and MBIs in particular. It was made clear by the investors that a firm that relied on any form of policy instrument for their business model to be profitable was not seen as a serious business. This is exemplified by a quote from an interview with a private investor:

“The [market-based] instruments do not influence [the investments]. We can get a lot of help, but the basic principle when we make an investment is that the firm must be able to stand on its own. If it cannot do that, then there is no long-term viable business. It is as simple as that.”

Concerning the general mistrust towards policy instruments, the investors expressed a fear that firms could become dependent on MBIs. If this happened the investors feared that firms would not be able to expand to markets with weaker governmental support, or would fail if policy systems changed or disbanded. A fund manager exemplified this by stating that:

“Generally speaking, the more policy instruments that exist on a market, the higher the risk.”

The industry representatives were ambivalent about whether business models in the EC ventures had been influenced by the market-based policies or not. All of the representatives believed that it was possible that it could happen and saw it as clearly disadvantageous if it did. However, they did not believe that it was something that happened often, since it would be difficult for such a firm to survive in the long run due to the volatility of the instruments.

Discussion & Analysis

The business models of the seven case firms have several characteristics in common, the most significant of which is that they were all heavily dependent on a network of actors to deliver customer value. These are characteristics of open business models, in which much of the customer value is created through cooperation between the main firm and several often closely-linked external partners (Chesbrough 2006, 2007). Research on

network-based open business models shows that solution-providing firms that are customer-centered, like the case firms in this study, should build strong ties with a limited number of partners in order to perform well (Frankenberger et al. 2013). By conducting business in the way that the case firms do the financial risk is smaller than it would otherwise have been. A drawback of this strategy is that it leads to cash flows going past the firms and directly to third-party actors, therefore diminishing the potential size of the firm. If this result is representative of the sector, it implies that EC firms play a larger role in the economy than what would be predicted when only looking at accounting data. Moreover, having a technology-focused business model might seem like a lesser risk to the managers that took part in this study, but research indicates that investors in renewable energy prefer service-driven and customer-focused business models (cf. Loock 2012).

Based on the answers from interviews with the managers, the business models had not been influenced by the MBIs in ways that made the firms dependent on them. The firms produced or adapted technologies that had considerably higher prices than mainstream substitute technology offered by incumbent firms, but the contribution of the MBIs did not help the firms to generate competitive returns on the Swedish market. As a result the managers expressed disappointment in the support they received through the MBIs.

Due to the nature of the MBIs one might expect that their influence would be apparent in two facets of the business model, namely customer value and relationships with investors. However, the customer value that the firms produced was only weakly influenced, and investor relationships were not being influenced at all. Instead managers were keenly aware that investors did not want their business models to be based on the support of policy instruments. Fittingly, investors described how they only saw risks, with environmental policies in general and market-based instruments in particular.

The five thematic areas of influence identified in the interviews are linked to three design features common to the two MBIs: i) inherent price volatility; ii) continuous systemic revision; and iii) the influence of bargaining on policy implementation which leads to exemption of firms or industries from the MBIs or related regulations.

First, the price offered by both systems varies over time, for the EU ETS more so than for the TGC. The volatility of the pricing mechanisms meant

that neither managers nor investors would rely on the Swedish MBIs to any great extent. The long investment horizon of sustainable innovations is poorly matched by the high volatility of the MBIs, even though the TGC provides a more predictable long-term return. This is a fairly uncontroversial finding that has been explored in research particularly on the effects of the EU ETS on sustainable innovation (e.g. Knoll & Engels 2012).

Second, both systems have a history of revisions that are both politically and bureaucratically driven, and at the time of the interviews possible future changes were debated in the media. Neither the managers nor the investors believed that the regulations that constituted the MBIs were reliable enough to constitute support for the firms. The increased risk from policy-related issues – referred to as regulatory uncertainty (Birnbaum 1984) – influenced both managers and investors in their views on the MBIs. All of the respondents in the study saw MBIs in particular as a poor foundation for firms that develop EC, mainly due to this uncertainty. Studies of the EU ETS show that there are inherent uncertainties about the implementation process and the interdependence between the system and other regulations that are unique to the system (Hoffmann et al. 2008), confirming managerial and investor frustrations with the MBIs.

Third, during the creation of the MBIs particular firms or whole industries were favored in the sense that they were exempted from either the MBIs or other environmental regulations that would have raised the marginal abatement cost for those firms. Exemptions come at a relatively high welfare cost (Kallbekken 2005), and as this study shows, it hurts firms providing sustainable innovations. The exemption meant not only that the overall marginal abatement cost in Sweden is lower than it should be, but also that certain market segments have been made unattractive for the EC firms.

The three design features create a situation where the potential support for EC ventures through MBIs is only realized for firms that would have been funded anyway. This result is in some ways similar to the claims made by Bergek & Jacobsson (2010) in their study of the Swedish TGC system, where the market structures were argued to favor existing technologies over new innovations. EC ventures that need the support of MBIs to yield a positive return on investment (ROI) are dismissed by the investors. As a result, there are EC ventures that should have generated positive ROI with the MBIs but that cannot raise capital due to investor aversion of the regulatory uncertainty associated with the instruments. The consequence is a loss to society of firms that the MBIs should be able to help but do not, due

to investors' perceptions about the MBIs. If regulatory uncertainty is the long-term state of affairs, the damage to society from the loss of sustainable innovations may be great, since degradation of the natural environment in certain cases may be irreversible (Faucheux & Froger 1995). Since it is not the level of compensation that the MBIs generate, but the uncertainty that is associated with the systems that cause the loss, a rise in MBI compensation levels will not eliminate this problem. Instead it is necessary to decrease the uncertainty, something which can be done in firm- or policy-centered ways (e.g. Engau & Hoffmann 2011; Engau & Hoffmann 2009).

The critique raised by Bergek & Jacobsson (2010) against the Swedish TGC system is built around the idea that it is the formation of suitable markets for innovations that is paramount to the successful development and diffusion of technology. Research on business models shows that even though segmentation, or the formation of suitable market segments, is a crucial part of business model development, the market is partially a matter of choice for the manager (Teece 2010). In other words, markets or market segments should not be thought of as exogenous to the business model formation process, but rather as chosen, and in some instances even created, by the manager. Considering the unwillingness to rely on MBIs, and the high costs (consumer and transaction costs) associated with the two MBIs (Bergek & Jacobsson 2010; Jaraite et al. 2010), it might be more cost effective to help managers of firms similar to the case firms to identify and meet customers, than to put more money into MBIs. By helping managers to find or create market segments, the firms are helped with a crucial step in the creation of a business model (Teece 2010). Even though such support already exists to lesser extent this study stresses the importance of this type of support and the necessity of complementing MBIs with targeted policies.

Both the business model concept (cf. Poel et al. 2007) and case methodology (cf. Kemp & Pontoglio 2011) are new tools to utilize in policy research. Results from this study, such as the network focused business models and the weak link between MBIs and market strategy, show that these tools provide perspectives that would be difficult to reproduce using other approaches.

Conclusion

This study set out to examine whether and how two market-based environmental policies, the EU ETS and the TGC, influence business models of seven Swedish technology-developing firms in the energy-related cleantech sector. The research question emanated from a conflict between

theory and practice. In theory, the MBIs are only supposed to directly influence the market price of innovations. In practice, all policy instruments have design features that impact on business (cf. Kemp & Pontoglio 2011) and are thus likely to influence the business models. The study focused on the Swedish setting, in which the presence of two MBIs should theoretically increase an already high abatement cost and help innovative firms developing business models for expensive sustainable innovations. The influence of these MBIs was explored through case studies and the results were compared with the views of investors and industry representatives.

The study found that despite a high marginal abatement cost, the MBIs do not raise the cost high enough for most of the studied firms to find profitable niche markets in Sweden. Additionally, the MBIs did not influence the business models in ways that made the case firms dependent on these systems. Instead the instruments had a negative influence on the firms, and were seen by managers as something that distracted both customers and investors by dissuading these actors from taking on the risks that are necessary for the establishment of new technology. The causes of this negative influence were three design features that were shared by the MBIs. First, both systems have an inherent price volatility that makes planning difficult for customers and investors. Second, there is continuous systemic revision driven by politicians and bureaucrats which adds regulatory uncertainty onto any investment that relies on the MBIs. Third, the MBIs are part of a policy mix and the political bargaining that surrounds the MBIs and related regulations enabled the exemption of firms or industries from either the MBIs or related environmental policies. As a result of these exemptions, cleantech products are unattractive in certain market segments or even whole markets. Consequently, the MBIs active in Sweden are not fostering dependence among technology providing firms similar to those studied, but nor are they supporting managers of such firms in their struggle to diffuse cleantech technology in the energy sector.

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Appendix 1: Quotes from managers on the influence of MBIs

Key finding	Quotes
Weak support for customer demand in Sweden	<p>“It helps that there is a cost for CO₂ and that there are certificates.”</p> <p>“The market-based policies affect us only marginally.”</p> <p>“The electricity price is way too low compared to other markets. The price one receives (when producing renewable energy) is about 4-5 times higher in the UK.”</p> <p>“There is no demand for our product in Sweden since it is not competitive at this price level. Our business is pretty much based on feed-in tariffs (in Germany) and if that system disappears we would need to change our business plan considerably.”</p> <p>“The certificates tend to safeguard existing technology because there are no incentives to take risks.”</p> <p>“Sea-based off-shore wind power is not supported properly by these instruments.”</p>
Volatility and risk both of and within the instruments	<p>“It is important for our customers that they can be sure about their revenues so stability is preferred. It would be good with a guaranteed price. That was what boosted Danish and German demand.”</p> <p>“The critical risks are that wrong political decisions will be made or that decisions will be put off until the future.”</p> <p>“We need to invest but we do not dare to. Instead of a single 20 million investment we do 2 million at a time.”</p>
Negative influence on the relationship with investors	<p>“The TGC system is shit. Instead I suggest a fixed price so that the investors know what they will get.”</p> <p>“Our investors do not see policy instruments as a basis for a future business.”</p> <p>“The policies create confusion and are shortsighted”.</p> <p>“The investors know the Swedish market but not other markets. It would be much easier to discuss our technology with an investor from one of our main markets. They would immediately understand what we are talking about because they have seen people making money on these instruments.”</p>
Lacking support for competence and production development	<p>“I doubt that the market-based instruments influence the need for technological competency either among our customers or in our firm.”</p> <p>“It is too expensive for us to spend money on the development of our product in Sweden. It is instead likely that we will do further development in China (a market the firm is targeting).”</p>
Negative effects due to exclusion of certain industries.	<p>“The exclusion of these industries is the main reason why our business is not doing better. It is just too cheap for these small businesses to produce or buy dirty electricity in Sweden.”</p> <p>“The large energy-intensive industries need to pay more for polluting.”</p>

Paper II

Paper II

Appeasing or interacting: Exploring the dilemma of stakeholder inclusion as a means for business model renewal

Abstract

Stakeholder inclusion has been touted as a powerful tool to reinvigorate a firm's business model. This study examines whether, how and why managers prioritize between two approaches to inclusion of stakeholders in relation to firm strategies for business model renewal: appeasing through goal inclusion or interacting through process inclusion. The study is set in the Swedish district heating sector, where managers have a long history of stakeholder interaction and are under pressure to develop new business models. The analysis shows that managers include less salient stakeholders in their strategic goals than in their strategy process. Stakeholder inclusion is done for idealistic, instrumental and strategic reasons. Managers driven by idealistic motives include less salient stakeholders in their strategy work than do managers who use only instrumental and strategic reasoning for stakeholder inclusion. The decoupling between goal and process inclusion and a stratification of value directed towards different stakeholders indicates a "greenwash" of firm strategy. The readiness of several firms to rely on employees to represent stakeholders' perspectives in core strategy processes means that top managers are unlikely get the benefits of stakeholder inclusion when working with business model renewal.

Keywords: business model renewal, district heating, stakeholder theory

Introduction

Business model renewal has been presented as a way for firms to regain or increase competitive power (Yip 2004, Chesbrough 2007, Giesen et al. 2007, Johnson et al. 2008). Choosing a business model is an inherently complex strategic decision (Yip 2004, Casadesus-Masanell & Ricart 2010) that is made even more difficult if the firm already has a well-established business model (Chesbrough & Rosenbloom 2002). As the business model describes how a firm defines, produces, delivers and presents value (Teece 2010), the configuration of a business model is something that interests stakeholders. Since the business world of today is characterized by well-informed and

vocal stakeholders who put pressure on managers (Hart & Sharma 2004), the views and actions of primary and secondary stakeholders (Clarkson 1995) will influence the fate of a business model. Consequently, the inclusion of stakeholders or stakeholder perspectives has been presented as something of a panacea for complex challenges in general and stakeholder-related challenges in particular (cf. Hart & Sharma 2004, Simmons, Iles & Yolles 2005, Reed 2008, Camillus 2008, Porter & Kramer 2011). The inclusion of stakeholders has been associated with proactive strategy work (Buyse & Verbeke 2003), but because of the idiosyncratic characteristics of interaction with stakeholders this is a highly challenging way of managing a firm (Hall & Vredenburg 2005). Until recently, the issue of how firms engage with stakeholders received little attention (Foster & Jonker 2005), and it is unclear how stakeholder inclusion influences strategy (Burchell & Cook 2006) and thus business model renewal.

The inclusion of stakeholders and their perspectives in relation to business model renewal is a strategic issue. Strategy is argued to consist of two fundamental aspects: goals and processes (cf. Chandler 1962, Bourgeois 1980), and even though stakeholder research deals with alignment of values and dialogues (e.g. Wheeler & Sillanpää 1998), research on stakeholder inclusion (e.g. Cumming 2001, Spitzbeck & Hansen 2010, Spitzbeck et al. 2011) has not explored this division further. Conceptually, goal inclusion refers to the altering of strategic goals in order to accommodate stakeholders or stakeholder perspectives. Process inclusion is the consideration of stakeholder perspectives or the direct inclusion of stakeholders in the processes that are used to develop the goals of the firm. Goal inclusion is the simplest and most direct approach of the two. It may represent a shift in value distribution between existing stakeholder groups, value creation for a widening number of stakeholder groups (cf. Freeman 1984) or a change in the composition of value that the firm produces (cf. Porter & Kramer 2011). The process-based approach to inclusion is more complex since it involves establishing routines for the continuous interaction between strategy makers and stakeholder groups (cf. Hart & Sharma 2004, Camillus 2008). Process inclusion can be done at different levels of stakeholder involvement. At the very least it entails some kind of dialogue, for example information meetings and consultation, but it may also be a deeper kind of involvement such as full board membership (Cumming 2001, Spitzbeck & Hansen 2010). Despite the complexity, process inclusion is thought to be an important tool for strategy and business model renewal (Hart & Sharma 2004, Camillus 2008).

Goal inclusion is a form of appeasement of stakeholders since it does not entail handing over power to stakeholders to continuously influence strategy creation. Compared to the process approach, it might therefore be perceived as a pay-off directed at noisy stakeholders, or a way to “greenwash” its activities (cf. Ramus & Montiel 2005). The process approach may lead to the establishment of relationships that are beneficial for the firm (Hart & Sharma 2004, Camillus 2008) but is a complex style of management (Hall & Vredenburg 2005). If the inclusion is not managed well and/or if stakeholders feel that they are not making an impact on the firm, they might choose to leave (Burchell & Cook 2006), hurting firm interests in the process. Hence, there are tangible tradeoffs connected with the dilemma of choosing between goal and process inclusion. This paper explores managerial decision-making concerning this dilemma. The purpose is to study if managers prioritize certain types of inclusion over others and explore the methods of as well as the reasons behind stakeholder inclusion.

The remainder of the paper is structured in the following way. The second section contains a review of stakeholder theory and an analytical framework for the identification of stakeholders and stakeholder inclusion. In the third section, the Swedish municipal district heating sector is presented as an example of a sector which has a history of expanding stakeholder inclusion. It is also a sector where managers experience pressure to renew existing business models. The fourth section describes how the study and the analysis were conducted. The fifth section presents the results, which show that managers do differentiate and that there are disparities in the reasoning linked to aspects of the inclusion of stakeholders. The sixth section analyzes and compares the results with other research and presents key conclusions.

Analytical framework

Strategy is a complex concept which can be defined in different ways (cf. Mintzberg 1994). MacCrimmon (1993) suggests a fundamental definition of strategy as a series of related actions which involve the use of resources and are directed by goals which coordinate the actions. Strategy is seen by some as the act of choosing a business model (e.g. Casadesus-Masanell & Ricart 2010). Researchers such Chandler (1962) and Bourgeois (1980) state that strategy should be considered as being both process- (Chandler – “courses of action”) and goal- (Bourgeois – “outcome”) oriented. Idenburg (1993) agrees and divides strategy into two dimensions: what and how. A goal represents a desired state of affairs towards which the organization strives (Etzioni 1960) and in this paper it refers to publicly-stated goals which are communicated to stakeholders. The term strategy process is, for the purposes

of this paper, seen as being equivalent to Van de Ven's (1992) definition of a category of concepts for actions taken by individuals or organizations. It encompasses the activities, practices and actors involved in the creation of strategy (Regnér 2003).

Both the inclusion of previously excluded stakeholders in goals (e.g. Porter & Kramer 2011), and the inclusion of such groups in strategic processes (e.g. Camillus 2008, Spitzbeck et al. 2011), rest on the assumption that the inclusion of stakeholders has a positive influence on the outcome of strategic work. Stakeholder theory, as defined by Freeman (1984), moves strategy research away from the industrial organization perspective represented by Porter (1980, 1981) and the resource-based view developed largely by Barney (1986, 1991). Those approaches postulate that strategy emanates from the skillful management of industry and resource structures, respectively (Regnér 2005). Instead, strategy is considered to be a social practice with its basis in the communication conducted between actors (e.g. Marchiori & Bulgacov 2012).

Mitchell et al. (1997) propose a framework for the classification of stakeholder importance to managers. The framework has been applied in different settings (e.g. Parent & Deephouse 2007; Gago & Antolin 2004; Agle et al. 1999), and is a dynamic typology based on the relative salience of stakeholders to managers. It builds on the notion that the properties of power, legitimacy and urgency influence the perceived importance of a specific stakeholder. Based on how stakeholders are characterized regarding these properties, the stakeholders are categorized in three classes of salience: latent, expectant and definitive stakeholders. A latent stakeholder has only one of the three properties and this group might, according to Mitchell et al. (1997), even have such a low profile that managers do not recognize them as stakeholders. Expectant stakeholders have high levels of any two of the three factors and can pose a challenge for the manager. Expectant stakeholders may be dominant, dependent and/or dangerous depending on which type of mix between power, legitimacy and urgency that is in confluence. The third category is definitive stakeholders, which managers – according to Mitchell et al. (1997) – perceive as the most salient since they have both power to influence the firm, pose legitimate claims on it and to present pressing issues. The three categories mirror how managers perceive and prioritize between their stakeholders.

By combining the goal and process dimensions with the different types of stakeholders postulated by Mitchell et al (1997), it is possible to create a strategic decision matrix, which describes how stakeholders are included in goals and processes. As suggested in Figure 1, it is possible for managers to appease less salient stakeholders by including them in the goal dimension (the black arrow), to interact with less salient stakeholders in the process dimension (the striped arrow), or to combine both approaches (the white arrow).

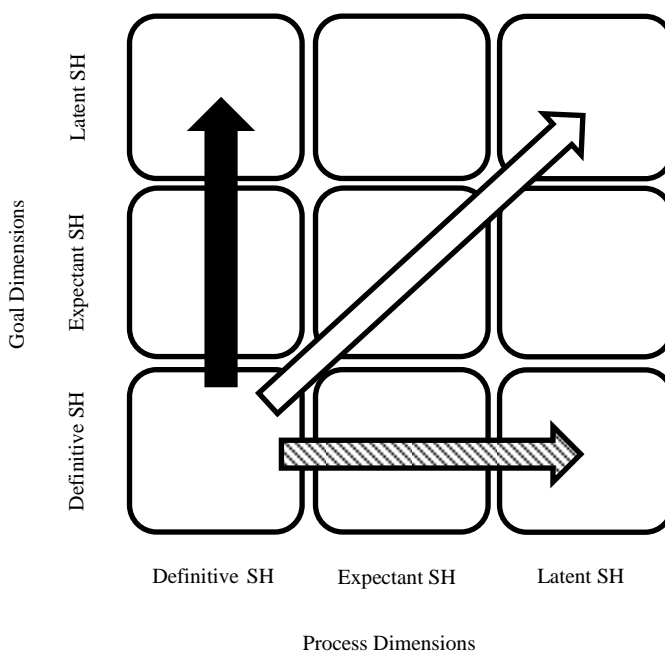


Figure 1: Goal and process dimensions of stakeholder (SH) inclusion

In general, stakeholders’ preferences vary over time, which means that the salience of stakeholders may fluctuate. Cennamo et al. (2009) interpret this as making stakeholder interest irrelevant in itself; instead it is the manager’s perception of the stakeholder that is of importance. The interest of the stakeholder only becomes important once it has been revealed to managers (Dutton and Ashford 1993; Mitchell et al. 1997). This elevates the subjective nature of stakeholder salience and forms a basis for the approach to stakeholder identification suggested by Mitchell et al. (1997). Several factors may influence perceptions of salience, and research shows that such factors are to a great extent contextual (Neville et al. 2011). Disputes over such

factors as price or externalities can generate urgency and legitimacy, but can also fuel the desire to apply power in order to influence the firm. Buysse & Verbeke (2003) show that managers active in firms with an environmental profile perceive a larger number of salient stakeholders than others. Parent & Deephouse (2007) find that the manager's position and role affected both the salience and the number of stakeholders they identified. Corporate culture is also suggested to influence perceptions of salience. Jones et al. (2007) describe how stakeholder-oriented firms are influenced differently depending on how the organizational concerns for stakeholders took shape. If focus was on stakeholders due to self-interest, salience was perceived as stronger than in other cases. Size can also be considered to influence the number of stakeholders that the firm interacts with and the salience of those stakeholders. Darnall et al. (2010) show that the relationship between stakeholder-related pressure on the firm and environmental strategy varies depending on firm size. Smaller firms are more affected by perceived pressure from suppliers, owners and employees than larger firms, but are less likely to adopt proactive environmental practices. Their study also indicates that managers of smaller firms may perceive stakeholders as more salient.

Municipal district heating

The Swedish municipal district heating sector has two traits that make it suitable for the study of stakeholder inclusion in business model renewal. First, municipal ownership means that firms in the sector have a history of building stakeholder relations. Swedish district heating has been a primarily municipal concern. Due to municipal institutional support, the technology enjoyed a dominant position in some markets for space heating (Summerton 1992). With the introduction of the law of business-like activities (§1991:900), municipalities were encouraged to create and run firms to execute municipal services. As a result, many municipal energy conglomerates were created to supply district heating and electricity to local markets. At present, only a handful of municipalities still rely on a bureaucratic type of administration of district heating. The number of firms partially or wholly owned by municipalities has decreased steadily. In 2010 about 60 per cent of the 220 active firms producing district heating were wholly owned by municipalities and another 17 per cent were owned by various owner constellations with municipal partners (Granström 2011).

Second, regulatory changes as well as a range of strategic challenges have resulted in a pressure on firms to establish and renew their business models. As the electricity market was deregulated in 1996, the strategic landscape for district heating changed. Much of the municipal support faded and several

private and state actors entered the market, increasing the number of actors as well as the types of substitutes. During the 2000s further pressure to harmonize municipal activities with market forces led to the introduction of the law on district heating (SFS 2008:263). The regulatory framework that is currently in place requires municipal firms to act in a business-like manner and influences how managers may run their firms. Much of the regulatory pressure that arose during the 2000s stemmed from dissatisfaction among stakeholders, mainly suppliers and customers (Söderholm & Wårell 2011). Suppliers wanted access to the district heating grid and a higher share of the energy revenues, while customers sought fairer pricing. Despite different interests these groups attacked district heating firms on the same premise, namely that district heating firms have so-called local monopolies. Stakeholder pressure resulted in a governmental investigation into the possibility of third party access to distribution networks (Söderholm & Wårell 2011). Third party access would have forced firms to divide their organizations into separate entities for production, delivery and trading – as is already done in the electricity sector. This would have meant a significant change in the business model of many district heating firms.

In addition to strong stakeholder pressure from certain groups, firms within the sector face a range of threats that will force the sector into stagnation. Magnusson (2012) classifies and divides the threats in accordance with Hughes (1983) as being either external or internal to the control of managers. The main external threats are: a trend towards greater energy efficiency in buildings that decreases demand for energy per square meter; toughening competition from different substitutes; a saturation of the most attractive market segments; and rising outdoor temperatures due to climate change, which will lower energy demand further. The internal threats are related to managerial difficulties with handling stakeholders. Stakeholder discontent about price development during the last two decades is thus seen as an internal cause for stagnation. Magnusson (2012) claims that this disapproval is a symptom of an old production-oriented system being run under new market-based terms without the legitimacy needed to do so. Jørgensen (2009) supports this claim by asserting that legitimacy is crucial for the future development of the sector.

Research design and method

According to Mitchell et al. (1997), stakeholder salience is a subjective assessment done by the manager. Consequently, this study is concerned with the managers' construction of meaning (cf. Weick 1995) on the topic of stakeholder inclusion. Weick (1995) describes how sensemaking can be

partially accessed through interviews, but the continuous retrospection and search for congruence that characterizes sensemaking is a challenge for the researcher. An interview can be thought of as a window through which the researcher attempts to catch a glimpse of the interviewee's past experiences (Czarniawska 1997). This study therefore builds on subjectivist ontology and interpretivist epistemology (cf. Cunliffe 2011).

The concept of strategic goal was operationalized as stated goals that are communicated to stakeholders. Strategic goals are often reproduced in forms such as strategy documents and annual reports, which are widely distributed. Such documents can be seen as traces of the organizational discourse, here defined as the durable meanings present within the language used by organizational members in their communication with each other and outsiders (Taylor & Robichaud 2004; Alvesson & Karreman 2000). It is, however, not only internal documents and annual reports that can be used as sources for tracing communication. Since the internet has become a major route for communication with stakeholders, home pages are another important source (Unerman & Bennett 2004). All activities related to the work of developing the strategy of the firm were considered to be part of strategy processes. The study is thus concerned with top managers descriptions of the inclusion of stakeholders in micro-level activities (cf. Regnér 2003).

Representatives from 15 municipally owned energy firms with district heating as their main product were approached and asked if they would participate in the study. Representatives from ten firms accepted. In total, 22 respondents participated; of these, six were CEOs and nine were business area managers for the district heating division. The remaining respondents were other types of managers, such as production and sales managers. Annual turnover was used as an indicator of relative size. Three groups were roughly based on the population quartiles found in the sector data for 2008: Small (S) <250 million SEK, Medium (M) 250-750 million SEK and Large (L) >750 million. The average annual turnover for municipal firms in the sector was 225 million SEK for 2008. In total there were four small, three medium and three large firms that participated in the study.

A semi-structured approach was used in the interviews, which meant that the respondents were allowed to take an active role in constructing the interview and influencing its direction (cf. Cassell 2011). In order to adapt questions to specific managers, each interview was preceded by an analysis of the firm's production and accounting data for the period of 2000 to 2010. By doing so

the interviewer had a prior understanding of major strategic events such as substantial investments, changes in fuel mixes and business alliances.

The respondents were asked about their work in relation to strategy process and strategy goals as well as the involvement of stakeholders. The questions referred to four general groups of stakeholders: owners, customers, suppliers and local actors. Since the questions were formulated so that they would allow the respondents to freely describe and exemplify the activities that they participated in and the goals they set, it was open to the respondent to add or redefine stakeholder groups. The representatives were also asked about how they perceived the actors that they engaged with and the issues that these actors raise about the firm's strategy. The interviews took between one and a half hours and two hours and forty-five minutes. All interviews were taped and transcribed with a low level of inference. Quotes or texts that were representative of findings were translated verbatim and then rewritten in order to make grammatical and logical sense for the reader.

In addition to the interviews, two strategy workshops and a group discussion were held. The strategy workshops were arranged in different ways. The first was held with the CEO, management team and all of the board members of a single firm (M2). It was conducted together with a consultant team who worked with the participants on a range of topics relating to the strategy of the firm. The second strategy workshop was conducted with representatives, mostly CEOs, from 45 Swedish district heating firms, and functioned as a debate forum on strategy goals, strategy processes and expectations on the future market situation. The group discussion was held with respondents from five firms that participated in the study. These respondents were handpicked due to their affinity with particular strategic issues or particular features within their organizations, in order to form a focus group. The group discussion was attended by the CEO of M1, the business area manager of L1, two sales managers from S3, a sales manager from M2 and an operations manager from S4. Because of confidentiality issues none of these events were taped. Instead, extensive notes were made. According to Kitzinger (1994), these types of events are not well suited for the examination of individual reflections on activities. Instead they are tools for "filling in the gaps" when it comes to examining a cultural context, or, through inductive reasoning, to generating concepts and hypotheses. Consequently, the data gathered during the events was used to get a better understanding of general strategic options available within the sector, the general relationship to stakeholders, and the participants' views on the outlook for the district heating sector. In short, the data improved the understanding of the context

in which the organizations worked and was not used for the purpose of assessing stakeholder salience.

Going through the available material relating to the strategic goals of the firms, three types of statements could be identified as describing a firm's strategic goals: the explicit vision or goal, the business idea and the core values. The explicit vision was often a short sentence or two which presented the goal of the organization. These were found both in the annual reports and on the firms' homepages. Both the business idea and the core values are statements which elaborate on the underlying motives behind the organization's actions. Not all firms had a business idea segment, but those who did not, had a presentation of goal values instead. Often elaborate goal statements were only found on the firms' homepages. Consequently, this study relies on three sources in order to extract descriptions of stakeholder inclusion in strategic processes and goals: interviews, annual reports and goal-related statements available on the firms' homepages.

The analysis was influenced by the studies produced by Parent & Deephouse (2007), Chinyio & Akintoye (2008) and Myllykangas et al. (2010). First, stakeholders were identified within the material. The next step was to assess the perceived power, legitimacy and urgency of each stakeholder. Following Myllykangas et al. (2010), a coding system was created in which legitimacy and urgency were seen as binary, while power was thought of as being non-existent, low, medium or high. The coding process was based on Mitchell et al.'s (1997) description of the three characteristics. Outright references, synonyms and enthymemes which alluded to the existence of the characteristics, were used as basis for the coding. If the description within the goal-related material and the interviews differed, the description that gave the stakeholder the most salience was used.

Once all stakeholders who appeared within the material had been coded, their involvement in strategy processes and goals was assessed. In line with Regnér (2003), all activities and practices that were described as influencing the creation of strategy were categorized as strategy processes. The goals that were considered were those that were presented for the public, qualitative or quantitative. The involvement of stakeholders in such stated goals was based on clarifications found in texts or gathered through interviews. The firms' inclusion of stakeholders was then plotted based on the least salient stakeholder included.

The classification process can be exemplified with the following case. The firm M2, a mid-size energy conglomerate, had a vision statement in its annual report and on the homepage that expressed how the firm had an environmental responsibility towards the whole world and that the goal of the firm was to produce value for the region in which it is situated. The text expressed how inhabitants of the region had legitimacy, in claiming that the firm had reduced its pollution, but nowhere was there any mention of the inhabitants having power or urgency when approaching the firm and its production. As a result, the goal expressed the inclusion of latent stakeholders. During the interview the goal was then discussed but none of the respondents presented a different picture of the inhabitants of the region. They were thus still classified as legitimate but powerless and non-urgent stakeholders. The firm M2 thus included latent stakeholders, stakeholders with only legitimacy in their goal dimension.

Concerning the strategy processes, the managers from M2 described how they worked with representatives from smaller customers in a customer interaction group. The group convened frequently and discussed issues such as pricing, quality and production. Despite that each customer answered for a small portion of total demand these customer representatives were described as having some power over the firm, and as customer representatives they were seen as having legitimacy. The concerns raised by the customer representatives were described as important for the future development of the firm but the interaction group was seen as a long-term project and the group had no say over more urgent issues. It was considered that the interaction group was an important part of the firm's strategy process and that the customers were expectant stakeholders, with legitimacy and medium power, but no urgency.

Results

For the managers the owners were the most important stakeholder group. This group manifested itself in the managerial daily work through the interaction with different owner representatives such as municipal politicians in general and board members in particular. The attitude towards the owners and municipal ownership was complex. Municipal ownership did offer some benefits, such as cheaper credit, but it also meant that managers had to deal with specific legislation that complicated their work, and the politically elected boards were seen as problematic. Some board members were described as lacking knowledge about board work in general and district heating in particular. These board members were portrayed as being unable to act properly in the interests of the firm, and were instead interested in

pushing issues that were described as being of minor importance or even unrealistic. Managers tried to counter this by having a good relationship with top politicians, educating board members, introducing board members from the local business sector or creating internal strategy councils.

In general, managers described customers as irrational, focusing solely on price and lacking knowledge about the complexity of the production and delivery of district heating. Hence, customers were not seen as being able to contribute to the firm. Even though firms possessed precise data on customers' individual patterns of energy consumption, several managers expressed regret over the fact that they had poor understanding of their customers as individuals. The individual customer was, for some of these managers, more or less synonymous with a billing address.

The relationship with the suppliers was dependent on the type of technology that was used in production and on the choice of purchasing strategy. Managers in firms that relied on industrial waste heat were more concerned about their relationship to their supplier than managers in firms with many small suppliers delivering bio-fuels on short-term contracts. The concentration of power with one supplier meant that the managers relying on waste heat had their entire business based on a long-term relationship with one actor. Having a good relationship and well-functioning communication about strategic issues was therefore seen as crucial. In the firms that relied on shorter contracts and more numerous suppliers, the term "supplier" was used interchangeably with the term "market", and managers did not express that supplier relations was a strategic concern.

Reasons for inclusion

The reasons behind inclusion of stakeholders were idealistic, instrumental and strategic (Appendix 1). First, inclusion was presented as the morally right thing to do. Inclusion was a principle that the managers related to the democratic nature of Swedish society and thus a natural step for a firm that was active in that setting. This reveals an idealistic perspective on inclusion that is separate from other types of economic or strategic reasoning. Second, inclusion was described as a way for the firm to profit from the drive and knowledge of the stakeholders, i.e. instrumental in nature. Third, inclusion was expressed as a possible way to disarm critique against the firm and to decrease the likelihood of future conflicts with the stakeholder groups included. Inclusion represented a strategic way through which the threat that the stakeholder posed could be neutralized or at least weakened.

The reasons were linked to the degree of inclusion. Managers who used idealistic arguments included less salient stakeholders. Nevertheless, those managers did not solely use idealistic reasoning. They also presented instrumental and strategic arguments as reasons for inclusion.

Strategy processes

The different activities related to strategy work were given varying importance by the managers and it was therefore possible to divide the activities into two categories: core and peripheral strategy processes. The first category contains activities which the managers presented as core aspects of the strategy-related work. These activities are highly routinized, often regulated and periodically reoccurring interactions between top managers and individuals representing key stakeholder groups. Such interaction was seen as more or less mandatory steps which managers had to go through in order for the firm to produce the required accounting and management documents and to finalize its strategy. The second, peripheral type of strategy-related activities existed in parallel with the core processes. In contrast to the core processes, the managers described how their firms engaged with loosely associated stakeholders in peripheral activities. These activities could be routinized, such as a regular meeting with smaller customers, or sporadic, such as unplanned meetings with suppliers. Participation in peripheral activities did not offer stakeholders a formal opportunity to directly influence decision-making, but were described as influencing managerial perceptions indirectly. Such activities were viewed as being important enough for the firm to have personnel report back directly to top managers, and in some cases even to have top managers attending them. Only one of the firms (S2) did not include expectant stakeholders in their peripheral activities. The firm was the smallest in the study and had few peripheral activities that were important for its strategy development. In those activities managers focused on one definitive stakeholder – the owners.

Examples of peripheral activities were formal and informal customer and supplier meetings, customer information events, attendance at meetings with stakeholder-oriented interest groups, and educational and bench-marking activities together with other district heating firms. Participation in interest groups was stressed as being especially important for strategy development. While all firms were members of such groups, a handful of the CEOs were not satisfied with being passive members. They saw it as crucial to have active representatives on the boards of key interest groups, and if that was not possible, to have representatives working for the investigative bodies of such organizations. The placement of employees allowed top managers not

only to get a feeling for how a topic was developing, but also to influence the development of both the topic and the organization. As such, active membership was seen as a way of lobbying both within and through the interest group.

Managers in all but three firms (L2, M2 and M3) focused on engaging definite stakeholders in their core strategy processes. Examples of definite stakeholders with which the managers interacted were owner representatives, big or otherwise important customers or suppliers, and key staff. These stakeholders had power, legitimacy and urgency in their demands towards the firm and were seen as playing major roles in shaping the future of the firm. The additional stakeholder groups that the three firms L2, M2 and M3 engaged with in their core strategy processes were smaller customers (through customer interaction groups), suppliers (through strategy developing meetings) and representatives from other district heating firms (through strategy development meetings). The managers of these firms used idealistic, instrumental and strategic reasoning when arguing for inclusion. The stakeholders that were included were described as having medium power over the firm but they had no urgency, which meant that they qualified as expectant stakeholders. These expectant stakeholders were seen by the managers as being able to bring new and important perspectives to the firm, and their opinions on strategic decisions such as new products and services, expansions of operations or the creation of new pricing models, were valued highly. The description of the smaller customers presented by these three firms stood in particularly stark contrast to the image produced by the rest of the managers. Managers from the other firms expressed a belief that they knew their expectant stakeholders well enough to exclude them. These managers relied instead on their own employees as spokespersons for those stakeholders that were not represented.

Strategy goals

Six of the firms included latent stakeholders in their goal statements, while two firms directed their goals only towards definitive stakeholders, and another two firms chose to include both expectant and latent stakeholders. The managers stated that goal setting and fulfillment were ways to gain legitimacy in the eyes of their stakeholders. The consensus among the managers was that most stakeholders would benefit in one way or another if the firms were able to fulfil tangible goals related to three topics: pricing, environmental sustainability and economic sustainability (i.e. the survival of the firm or the firm's economic contribution to the community). These topics were also identified in the goal statements found within the annual reports or

on the homepages of the firms (see Appendix 2). Even though the goals were frequently formulated in short and sometimes vague catchphrases, few goals were exclusively focused on one of the topics. Ambiguous goals were further refined in statements about business ideas or core values and elaborated upon in the annual reports. In these statements the focus was on owners and customers, but all the firms used these clarifying texts as an opportunity to express concern about the environment. There was more focus on economic sustainability in the goals of the smaller firms than in the larger ones.

On the topic of pricing, the managers expressed that they were being pressured both by customers and owners. The customers were described as comparing the price of district heating with that of other substitutes. Consequently the managers needed to find arguments to use both in defense of their pricing strategies and against the pricing strategies of firms that provided substitutes. Owners were seen as relying on a national price list (i.e. the Nils Holgersson price list) as a means to compare pricing and would pressure managers to explain differences in pricing. The motivation behind a specific price level or pricing model was seen as important for gaining and maintaining legitimacy among both owners and customers. The pressure to motivate pricing was also linked to the necessity of having efficient production processes. The managers felt that they had to show that their firms made an effort not to pass on rising costs to the customers and therefore used arguments that expressed and legitimized activities on the production side.

Pricing also played a key role when discussing environmentally-related challenges. Managers expressed a belief that without a competitive and legitimate pricing strategy the comparatively beneficial environmental impact of district heating would be wasted. Without an expressed environmental policy the firm would not be a viable alternative for the customers, which meant that environmental concerns were presented as a hygiene factor. The common perception was that almost all customers focused on the price and did not have a good understanding of the environmental aspects of district heating, or even other energy solutions, for that matter. Furthermore, even if pressure from customers or potential customers associated with environmental issues was perceived as high in some instances, these instances were discussed and described as if they were grounds for bargaining between firm representatives and customers.

The goal of economic sustainability was linked to the level of profitability that the firm could achieve. Profitability was important and sensitive but also negotiable. Owners were described as viewing profits as a bag of money that they could claim in order to finance other municipal activities. Several managers explained how they had a continuous dialogue with owner representatives about the level of profitability that would be possible and desirable. Once the profit goal was set, it was seen as crucial to reach that target in order to maintain a good relationship with the owners. Managers also described how they were questioned by customers about the relationship between profitability and pricing. Such inquiries were associated with accusations of monopolistic behavior and the need to be able to stand up against such claims.

A common view among the managers was that none of the goals were written in stone. If something radical happened, such as extreme temperatures, production breakdowns, changes in regulations or high fuel prices, the managers had to build up a credible story for the different stakeholders that explained why a particular goal was not met. The managers acknowledged that this happened quite often, which meant that they also needed to be on good terms with the stakeholders that they saw as most influential. In all cases this was the municipality which had the main stake in the firm.

During the analysis of the goals and how the managers discussed them it became apparent that the different stakeholder groups were linked to different types of resources. Definitive stakeholders were associated with financial resources and quantitative goals such as financial, environmental and productivity goals. Expectant stakeholders were associated with some quantifiable goals, such as a share of the budget spent on activities directed towards such stakeholders and to environmental quantitative goals, but also to broader and more ambiguous goals. Latent stakeholders were more or less only linked to qualitative and often ambiguous goals such as “a clean environment” or “showing respect for [the stakeholder group]”. Accordingly the value that was directed towards the less salient groups was different from that which was directed towards the definitive stakeholders.

Comparison of process and goal inclusion

Only two firms limited their goal statements to definitive stakeholders but the types of value directed towards expectant and latent stakeholders were not as tangible as those which were directed towards the definitive

stakeholders. The result was a stratification of values, which is shown in Figure 2 by a gradually lighter pattern as the goals become less tangible.

The managers from L2, M2 and M3 were the only ones who described how their firms included expectant stakeholders in their core strategy processes. The managers were in general satisfied with how much they and their firms interacted with stakeholders, apart from customers. The interviews did not indicate whether firm size influenced the choice of inclusion, but there were differences between small and large firms, in particular, when it came to how managers described their relationships with stakeholders. Managers from larger firms stressed the board meetings and discussions with politicians as situations where they felt pressure from stakeholders, while the managers from smaller firms described how they felt pressure from their stakeholders on a daily basis even outside work.

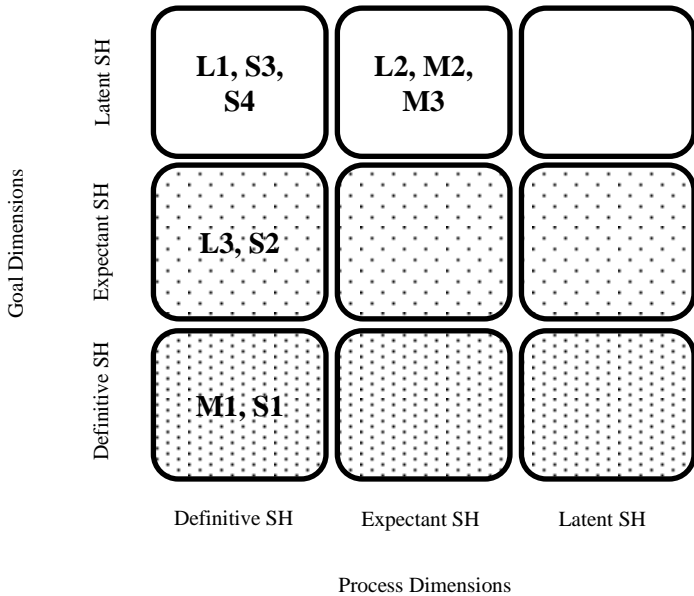


Figure 2: Firm inclusion of stakeholders (SH) in relation to goal and process dimensions

Discussion and analysis

The dichotomy between core and peripheral strategy processes found in the material is similar to that of Regnér (2003), who identifies inductive

peripheral and deductive core processes. The division that Regnér (2003) describes is related to knowledge building, while the deduced dichotomy presented in this study is based on the managers' perceptions of priority. Some similarities do however exist: the peripheral activities were of an explorative and tentative character while the core activities were routinized and often regulated by agreements or legislation. The decision of managers in three firms to include expectant stakeholders in the core strategy processes is one finding that stands out. The idealistic reasoning behind the inclusion of expectant stakeholders in the strategy processes was exclusive to managers from those three firms. The managers claimed the stakeholders had the right to have a say in strategy formation, stressing legitimacy as described by Mitchell et al. (1997). These managers did also use instrumental and strategic reasoning. However, idealistic values do appear to be a driver for a wider inclusion of stakeholder groups (cf. Jones et al. 2007).

The two stakeholder groups which the managers focused on most were owners and customers. The fear among managers that the poor competence of board members had a negative influence on performance is valid in the view of research on board structure (e.g. Perry & Shivadasani 2005) and board member qualifications (e.g. Darmadi 2013). A relative lack of competence in the boards is also problematic when considering the task of controlling CEO behavior and raising performance (Pearce II & Zahra 1991). Managers presented education and the inclusion of the local private sector as methods for raising board competence levels. Considering the differences identified between private and public management (Boyne 2002), the latter is a move that may put pressure on both owners and board members to become more professional (cf. van der Walt & Ingley 2003). In light of the instrumental reasoning used when discussing inclusion of stakeholders, doubts about the competence of board members should make managers positive towards experimenting with the inclusion of other stakeholders.

The fact that district heating is dependent on scale effects on the production side (Fredriksen & Werner 1993) and has its capital tied to the location means that the customer collective residing in an area have the fate of the firm in their hands. Despite district heating being a sector based on long-term investments and relationships, the interaction between the firm and smaller customers was described as being limited to the billing processes. Consequently, the collective is threatening even if the individual customer is anonymous. This result might mirror the history of poor interaction between the firms and their smaller customers and indicates that there exist restrictions in customer engagement (cf. Vivek et al. 2012). Most of the

managers presented a firm-centered view when discussing customers. The managers thought that customers in general lacked an understanding of district heating and focused too much on price-related issues. Concerning this stance it is possible to make two observations that have a bearing on the business model formation process. First, excluding customers from influence over strategy-making due to a lack of understanding of how the product is produced and delivered is a mistake. The customer is the expert on the experience of the product, not the creation of it. Customers can therefore be a valuable input in the strategy process when it comes to defining market segments and the value proposition of a business model (cf. Teece 2010). Second, taking steps towards educating the customer about district heating might increase the value that customers perceive in the product, making them less price-conscious and more aware of values linked to the product (cf. Ramaswamy 2011).

Inclusion is thought to introduce a higher degree of complexity in managerial work, but also to improve managerial responsiveness to change and to allow a two-way communication between stakeholders and managers (Hart & Sharma 2004, Camillus 2008). There is a possibility that stakeholders will see the idealistic argumentation as an example of an ideal form of firm and stakeholder interaction, and communicate this to stakeholders of other firms. This might inspire stakeholders to put pressure on other municipally-owned district heating firms to include less salient stakeholders in their strategy processes. It may also make firms that are not inclusive in their strategy processes look bad if they resist further inclusion.

The results from the seven case firms that did not include expectant stakeholders in their core strategy processes raise questions about the benefits and drawbacks of their chosen degree of stakeholder inclusion. Is the inclusion of less salient stakeholders in vaguely formulated goals a good way to tackle demands on the firm in relation to strategic challenges, such as business model renewal, and is the interaction with less salient stakeholders in peripheral strategy processes enough to gain the benefits of stakeholder interaction? The inclusion of expectant and latent stakeholders in the firms' goals makes it appear as if the firms envision themselves as producing value for a broader audience, in line with that suggested by Porter & Kramer (2011). In contrast to this result, the type of value presented in goals linked to expectant and latent stakeholders is different compared to that linked to goals set for definitive stakeholders. Noticeably, financial resources are reserved as goals for definitive stakeholders. Therefore, even if less salient stakeholders are included in the goal dimensions, the nature and vagueness

of the values might be seen as an attempt by the managers to “greenwash” (cf. Ramus & Montiel 2005) their firms.

Managers did stress the importance of participating in industry interest groups as a way to acquire information and influence. Such membership was presented as an alternative to stakeholder inclusion. The activities described by the managers fit with the term “inter-organizational monitoring” (e.g. Labianca & Fairbank 2005), meaning that the managers systematically and continuously compared their actions and plans with those of a number of competitors. The emphasis put on this type of activity showed the importance attached by managers to an active interaction with that which Teece (2007) describes as an industry’s ecosystem. Limiting strategy-related inputs to the study of peers might, in the light of other research, be a strategic mistake. It is commonly thought that one of the first steps in strategy development is to formulate a problem (Langley et al. 1995), so by engaging stakeholders in the strategy process it is possible to achieve a participatory problem formulation (Baer et al. 2013). The inclusion of stakeholders into the core processes can be seen as a step towards a more participatory strategy process. In the case of the peripheral processes it is questionable whether the same can be claimed. Top managers were described as only rarely participating in the peripheral activities. It was up to middle managers or other firm representatives who attended the peripheral activities to pass on information and demands to top managers. Research on the communication between middle and top managers (e.g. Dutton & Ashford 1993; Dutton et al. 1997) shows that the possibility of making an impact on top managers through a proxy agent, such as firm staff, is highly dependent on context as well as the image and skill of the proxy agent. Hence, the possibility for less salient stakeholders to influence strategy through these peripheral processes is probably small. It is therefore questionable whether the interaction with less salient stakeholders in peripheral processes between firm representatives and stakeholders is sufficient for top managers to get the inputs needed for a kind of business model renewal that is responsive to stakeholder demands. Consequently, the managers of these seven firms may fail both to gain instrumental value from their engagement with stakeholders and to handle stakeholders in a strategic manner.

Conclusion

This study explores whether, how and why managers choose between two distinct approaches to stakeholder inclusion when trying to renew a firm’s business model. By interviewing managers and analyzing strategy-related

documents from ten municipal firms in the district heating sector it was determined that the managers do differentiate in the inclusion of stakeholders in relation to the firms' strategic processes and goals.

The study identified two categories of strategy processes: core and peripheral strategy process. The interaction with less salient stakeholders in the peripheral processes was extensive while only three firms included expectant stakeholders in the core strategy processes. The priority put on definitive stakeholders in the strategy processes was mirrored by a separation of the types of value directed toward different stakeholder groups. Monetary value was directed toward definitive stakeholders while ambiguous and qualitative values were directed toward less salient groups. Overall, the reasons for inclusion were tied to idealistic, instrumental and strategic motives, where idealistic reasoning was aligned with an inclusion of less salient stakeholders in strategy processes.

The difference in inclusion is understandable when considering the higher cost and complexity of stakeholder inclusion in strategy processes compared to strategy goals. However, in an interconnected world where the firm is thought of existing in a web of stakeholder relations may the decoupling between goal and process inclusion and the stratification of value be thought of as greenwashing. The readiness of several firms to rely on employees to represent stakeholders' perspectives in core strategy processes means that top managers are unlikely get the benefits of stakeholder inclusion when working with business model renewal.

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Appendix 1: Reasons for inclusion

Reason	Quotes
Idealistic	<p>“The board is very happy, very happy indeed. At last we – a square technology-focused organization – have the customer at the top of the organizational pyramid. It is a very positive feeling. We have worked with processes in order to enable for these stakeholders to get up close with us.”</p> <p>“We have a customer referee group that we had no problems recruiting members to. From the start they were all very interested in having a dialogue, not only in order to meet us but also to meet each other. During the first meeting they spent the whole meeting talking to each other.[...] So we function as a catalyst for the interaction between industry stakeholders.”</p>
Instrumental	<p>“We have external representatives in our strategy advisory board who work for other firms in the same industry. Firms that we do not compete with. The fact that they are external means that we cannot shrug off their critique. It creates a discipline that we would not have otherwise.”</p> <p>“Nowadays we have moved from being reactive to thinking proactively[...] The image of our challenges, if we are going to succeed with the goals we have set, is not perfectly clear but we get much input from our customer meetings.”</p>
Strategic	<p>“The concept of fair price testing is a good example. It forces us to have a dialogue with the customer [...] It provides us with an arena in which we can engage with the customer [...] Through those meetings with the customer we can get re-elected and re-evaluated [by the customer] instead of just notifying on our homepage about price rises. Doing so leads in the wrong direction.”</p> <p>“We have a location that we want to develop however our plans collide with environmental and habitat concerns. We have a well-known local activist and environmental debater [Name] that might protest. Today he is our best ambassador. He praises our work in public. My plan is to let him keep on doing that.”</p>

Appendix 2: Topics in goal statements

Topic	Public goal statements from each firm.
Pricing	<p>M1: “The most satisfied customers in Sweden. [...] Through high environmental standards and competitive pricing.”</p> <p>S4: “Our management should be characterized by high environmental standards and competitive pricing.”</p>
Environmental sustainability	<p>L1: “A sustainable local community.”</p> <p>L2: “Your everyday life is the force that drives us. Our vision is to offer a good everyday life also in the future. A sustainable climate is a condition.”</p> <p>L3: “Cooperation, commitment and knowledge for a sustainable future.”</p> <p>M2: “Energy for a better world. Power for the region.”</p>
Economic sustainability	<p>M3: “A sustainable and easy everyday life. By sustainable we mean ecological, economical and socially sustainable.”</p> <p>S1: “The goal of the company is to offer our customers good service and high reliability. For the board, management and personnel the goal is to work in a businesslike manner, continuously decreasing costs while keeping the environment in mind.”</p> <p>S2: “Our mission is to use our resources, our knowledge and our products to contribute to the region.”</p> <p>S3: “Focusing on customers’ needs, good ethics, businesslike management and high quality.”</p>

Paper III

Paper III

Managerial narratives about business model formation: Stories from the Swedish municipal district heating sector

Abstract

Business model formation is both portrayed through and influenced by narratives, but few studies of business models formation explicitly focus on narratives themselves. This paper explores what can be gained from studying business model formation through narratives and builds an analytical framework for such an endeavor. The framework is applied to interviews conducted with managers from the Swedish municipal district heating sector, which due to deregulation and changes in market structures have experience of business model formation. The analysis shows that managers narrate the formation of business models in manners which reveal a strong belief in communal and democratic values as drivers of success. Openness, inclusiveness, transparency and willingness to change are core aspects of successful management narratives in this sector and are seen as important contextual explanatory factors for the success of business model formation. This paper proposes a framework for a narrative analysis of business model formation. Additionally, it shows how narrative analysis can reveal contextual social and cultural factors that may influence the success and failure of business model formation processes.

Keywords: business model, narrative research, district heating

Introduction

Forming a business model – that is, establishing a way for a firm to produce, deliver and charge for its product in a manner that generates profits (cf. Teece 2010) – is complex and difficult (Chesbrough & Rosenbloom 2002). What types of difficulties managers face when trying to form a business model depends on what perspective one has on how firms and managers function. In a review of business model innovation research, Chesbrough (2010) claims that there exist two theoretical streams which postulate either obstruction or confusion as major barriers to business model formation. Proponents of obstruction suggest that managers are hindered from reaching their chosen models due to reliance on particular resources and

organizational path dependency. Chesbrough (2010) believes that this perspective infuses managers with the ability of rationally assessing and deciding on which business model configuration is suitable in a particular setting. He opposes this perspective and asserts that managers rarely have a clear image of what business model should be pursued in a given situation. Such a claim relates business model formation to the field of sensemaking research, a link that he has also made in earlier research (cf. Chesbrough & Rosenbloom 2002). This link is strengthened by Tikkanen et al. (2005), who describe how, besides containing tangible resources; the business model also consists of cognitive and evolutionary aspects and is connected to the sensemaking of involved actors. Organizationally related sensemaking is conceptualized as the retrospective and continuously ongoing placement of stimuli into some kind of framework (Weick 1995). Sensemaking explicates the human tendency to act upon a perceived and participated reality rather than purely to raw physical stimuli (Weick 1995). Sensemaking is widely seen as a process of narrativization, through which individuals and groups create narratives about reality and infuse them with meaning (Rhodes & Brown, 2005). From this perspective, the managerial worldview is built through the use of stories (Hummel 1991). Consequently the formation and evolution of a business model is both influenced by and portrayed in narratives.

Despite the apparent existence of narrative dimensions in business model formation, there are few business model formation studies which explicitly rely on narratives. Those that embrace this approach have in their studies either relied on less common definitions of the business model concept, as in the case of Downing (2005), or avoided defining it clearly, like Denning (2005) and Stubbs & Cocklin (2008). Authors might also, as in the case of Geiger & Antonacopoulou (2009), use the term without defining and relating it to the main subject of the paper. Consequently there is a lack of studies that connect narratives to business models in general and business model formation in particular. Committing to a narrative turn in the field of business model research would enable the use of an interpretive lens that accentuates the socio-cultural context in which business models are created (cf. Barry & Elmes 1997). Studying narratives is therefore a way of extracting the “implicit assumptions” (Teece 2010:173) that exist in business models. By doing so it is possible to expose underlying definitions and themes that are relied on when communicating about choices related to business model formation. Elucidating the social context in this way would reveal the options that are assumed to be valid within a particular context. With such benefits attached to a study of narratives, one is left with the

question of how a framework for the study of business model formation through narratives should look? The aim of this paper is to develop and apply such a framework in order to evaluate the results that are produced.

The structure of the paper is as follows. A brief discussion about reasons for studying narratives is followed by the development of a framework for identifying, disassembling and analyzing narratives about business models. The framework is then tested on a number of interviews with managers from the Swedish municipal district heating sector, a sector in which firms, due to regulatory changes and stakeholder pressure, have recently developed business models. The analysis is followed by a discussion about the results and what they teach us about business models and narratives.

Theoretical framework

Despite the business model concept having become a part of mainstream strategy research, a comprehensive review of academic work on the concept by Zott et al. (2011) shows that there has yet to emerge a commonly accepted definition. Baden-Fuller & Morgan (2010) explore how the business model concept is used in professional and academic circles and find that research on the concept, as well as practical use of it, often relies on the concept being something akin to models found in the natural sciences or mathematics. Other researchers broaden the function and definition of the business model. Teece (2010:173), for instance, describes the concept as “embod[ying] nothing less than the organizational and financial ‘architecture’ of a business... the notion refers in the first instance to a conceptual, rather than a financial, model of a business. It makes implicit assumptions about customers, the behavior of revenues and costs, the changing nature of user needs, and likely competitor responses. It outlines the business logic required to earn a profit (if one is available to be earned) and, once adopted, defines the way the enterprise ‘goes to market’”. According to this description the business model is a conceptualization of how and why the firm interacts with different stakeholders, and it defines what roles the involved parties need to fulfil in order for the firm to produce value. Put in relation to Polkinghorne’s (1995:5) definition of a narrative as a “type of discourse composition that draws together diverse events, happenings, and actions of human lives into thematically unified goal-directed processes”, the above description of the business model makes it more akin to a narrative than a scientific model – at least as it is used in physics or economics. This conclusion is strengthened by Magretta (2002), who asserts that the business model has a narrative side. According to her, a viable business model must

answer to two different logics, the narrative and the economic, indicating reliance on a contextual narrative logic as well as on economic calculations.

Narratives in business and organizational studies

Gabriel (2004) describes how narration is an ancient craft that is widely used to relay information and purpose to members of groups. The attractiveness of narratives inspired Fisher (1984) to propose a theory of communication that he based on a vision of humans as creatures that are dependent upon and driven by narratives. Polkinghorne (1988) sees narratives as the key to understanding how and why we infuse meaning into events; they are often told to teach lessons or convey interpretations of events (Bruner 1990). Narratives produce meaning by contextualizing events and, as a result, Polkinghorne (1995) asserts that narratives represent a linguistic form that is uniquely well suited for the portrayal of the contextual dependency of human life. Research on narratives may therefore expose experiences that are reflexively composed and are open to an analysis of that interpreted and “lived” world of the subject in question (Rhodes & Brown 2005). As narratives are often conveyed and constructed in the interaction between group members, they may be indicative of something common to the organization, existing in the relations between its members. An example of this is provided by Meyer (1995), who discusses how narratives may be used in order to identify organizational values that characterize an organizational culture. Furthermore, due to their potential to form strategic blind spots and to cause organizational inertia, narratives may have tangible effects on the development of organizations (Deuten & Rip 2000; Fiol 2002; Geiger & Antonacopoulou 2009; Näslund & Perner 2012). They may also be used as communicative tools when dealing with stakeholders and thus influence how the organization is perceived (e.g. Boje 1991).

Despite the benefits of studying narratives, Eisenhardt (1991) questions whether it is at all possible to generalize results and generate theory from narratives. Weick (1995) also pits the narrative approach against that of the argumentative or paradigmatic conceptualization of organizational life. His conclusion is that general models of organizations have been based on argumentation rather than narration, despite the fact that most organizational realities grow out of narration. Reality is in this case the environment which the narrator enacts (Weick 1995). Narratives have however been redeemed as a source of knowledge both due to the realization that there has existed a false divide between narratives and science, and to the fact that positivistic approaches have failed to interpret many social and cultural phenomena (Czarniawska-Joerges 1995). As a result, contemporary research on

organizational life has been enriched by the narrative approach (Geiger & Antonacopoulou 2009; Rhodes & Brown 2005), and the dominance of argumentation over narration has more or less ceased with the impact of the narrative turn (Rhodes & Brown 2005). The proliferation of narrative research within organization and management studies has thus become one of the most significant trends in contemporary management research (Geiger & Antonacopoulou 2009; Rhodes & Brown 2005).

The question of what it is possible to say based on narratives, both in general and in relation to the theme of this paper, remains. Rhodes & Brown (2005) sees narrative research as an empirical tradition that deals with reflexively constructed stories of experiences which may or may not be in accordance with other stories or facts. The narrative endeavor zooms in on how individuals represent and construct their lives (Zald 1996) and is an interpretative investigation that focuses on social, discursive and cultural forms of life, rather than trying to unveil laws of human behavior (Brockmeier & Harré 1997). As such it would seem as if there is no theory to be developed out of narrative research, at least not theory which concerns itself with an underlying human condition. Since the narrative form encapsulates causality (Czarniawska-Joerges 1995), it may, as Brockmeier & Harré (1997) claim, work as an instruction for action. This implies that by understanding narratives we can build context-based speculations as to why particular narratives look the way they do and what actions may be expected within that particular context. Such speculations may have the characteristics of theory (Feldman et al. 2004) or models (Brockmeier & Harré 1997) in the sense that they may be used as a basis for predictions. The efficiency of such predictions is dependent not only on the context to which it is applied but also on the individuals' sensemaking and enactment of the said context.

The framework

A framework has to present how to identify and analyze narratives in general and narratives about business model formation in particular. Research indicates that there are a number of properties that are thought to characterize narratives. First of all, narratives have one dominant feature, namely sequentiality (Bruner 1990). This can be used by a narrator to infuse structure into an experience in ways that suggest causation (Zukier 1986). Such a structure is commonly referred to as plot and is basically a composition of sequences such as beginning-middle-end or situation-transformation-situation (Weick 1995). The order of the sequences may be changed in order to create dramatic effects (Czarniawska-Joerges 1995). Narratives are also thought to contain parts which are necessary for a story to

become a story. These components build up the content and may, as described above, be ordered in different sequences in order to convey meaning (Johnson & Mandler 1980). Burke (1969) suggests that most narratives contain the same five basic or minimal terms, namely: act, scene, agent, agency and purpose. The act describes what happened and the scene describes in what setting or context the act took place. The agent indicates who or what kind of person that was involved in the act. Agents may be divided into three categories: main agent, co-agent and counter-agent. Agency describes what means were deployed by an agent. Finally, the purpose describes to what end the act was carried out.

When analyzing narratives, Feldman et al. (2004) suggest that such work should take place on three distinct levels. First it is necessary to identify a story line. A story line is that fundamental point that the analyst interprets the narrator as trying to make about a phenomena. It is thus similar to the term “act” described by Burke (1969). The second level of analysis involves the identification of implicit and explicit oppositions in the story. Oppositions frequently exist within narratives and may be connected to McCloskey’s (1990) minimal elements of narratives, meaning that it is a fundamental component of narratives to describe how a situation shifts from one to another and how these situations often oppose each other. According to Feldman et al. (2004), oppositions might be difficult to discern since they can be implied rather than stated clearly, and therefore form an implicit opposition between that which is mentioned and that which is not. The narrator may use oppositions as building blocks in order to draw attention to a discourse-dependent meaning (Feldman 1995; Feldman & Sköldbberg 2002). The third and final level of analysis is the clarification of the use of syllogisms or enthymemes (syllogisms with missing elements, that are plausible or probabilistically inferential), lodged within the narratives. Feldman et al. (2004) see these narrative techniques as being closely related to opposition, and describe how syllogisms and enthymemes are frequently used in daily speech and how enthymemes are a necessary part of our narrative arsenal, since they enable us to convey information in a more speedy and convenient manner than by using elaborate syllogisms. Feldman & Sköldbberg (2002) also point out that by suppressing controversial parts of a syllogism and making it into an enthymeme, the narrator may avoid disagreement and let the listener fill in the gaps.

Turning to the issue of identifying narratives about business model formation, Teece (2010) notes that the term “business model” is not necessarily one that managers use. The existence of different definitions of

the concept also implies that the term may have different meanings to different people. It is thus likely that it will be difficult to spot references to business models if one restricts the study to narratives that mention business models outright. Hence it is necessary to discern which story lines deal with business models. Based on Teece's (2010) definition, the overarching plot of a business model revolves around the production and capture of value. It is possible to narrow down this rather broad demarcation by utilizing a perspective on business models presented by Morris et al. (2005). They see the business model as providing answers to six key questions about the firm, its value creation and the actors with which the firm interacts with. The questions (Morris et al. 2005:730) have been rephrased for this paper in order to provide a clearer picture to the reader about what they entail. The questions are:

- How does the firm create value for the customer?
- For what type of customer does the firm create value?
- What is the internal source of advantage of the firm in relation to competitors?
- How is the firm positioned in the market in relation to competitors?
- How does the firm make money, i.e. price its products?
- What are the time, scope and size ambitions with the firm?

All narratives that refer or relate to the themes present in the questions are business model narratives, or parts of such narratives. Since value, value creation and value capture are vague and theoretically challenging concepts (Lepak et al. 2007), further development is required. Value is thought by Bowman and Ambrosini (2000) to be divided into two distinct types: perceived use value and exchange value. The first type is subjectively assessed by the acquiring party and can be any combination of physical or socially constructed attributes of a product or service that are deemed to be attractive. The second type is the monetary value realized at the purchase moment and is equal to the price. Value creation is seen by Bowman and Ambrosini (2000) as the process of creating, through social or physical processes, perceived use values and realizing exchange values within an organization. Any narrative which describes the production and delivery of a physical product or service, as well as other "softer" aspects, such as pricing and marketing, should thus be considered to deal with the creation and capture of value.

All narratives come to an end and the outcome of the narrative plays an important role in how it will be treated by both the narrator and the listener.

Within organizations, as well as between individuals, narratives about success and failure form a basis for learning (Levinthal & March 1993). Fincham (2002) deduces that narratives about failure can be thought of as warning signs of what not to do, while narratives about success form a focal point around which the organization can gather. Vaara (2002) points out that narratives can be overly optimistic and overly pessimistic about the manager's ability to control change. Hence, it is important to interpret the outcome of the narrative in order to see what kind of lessons can be learned from it. It is fair to assume that narratives about the formation of business models will contain three types of outcomes, namely: beneficial, neutral and detrimental, in other words, success, inertia and failure. The cases where no discernible change is made are examples of inertia or anticlimactic endings. This category also contains narratives with an unclear ending. Such narratives can occur due to the reliance on implicit statements that might be impossible for the listener to interpret or the inability of the narrator to end the story.

Summing up, the suggested framework enables the identification of story lines about business model formation by comparing and associating narratives with the content of the questions provided by Morris et al. (2005). Furthermore, the identification of narrative terms (Burke 1969), narrative outcomes and narrative oppositions (Feldman 1995) allow for an analysis of the message that the narrator tries to convey about the formation of a business model.

Research setting

In Sweden, municipalities initiated and expanded local and regional energy systems over much of the latter half of the 20th century (Magnusson 2011). The implementation of district heating, benefited from various types of institutional support, such as mandatory connection clauses in zoning schemes (Summerton 1992). National policy decisions, based on the desire to decrease dependency on oil and to phase out nuclear power, also helped the expansion of district heating systems (Magnusson 2011). According to Aronsson & Hellmer (2009), the market share of space heating rose from 22 per cent in 1978 to over 50 per cent in 2007. Thus, locally-produced energy gradually became more or less equated with district heating and municipal energy conglomerates became more or less synonymous with district heating producers.

In 1996 the Swedish electricity market was deregulated, which opened up the possibility for different initiatives to compete with existing state and

municipal firms. The deregulation happened at a time when many municipalities were facing financial difficulties, leading to the widespread sell-off of energy firms in order for the municipalities to quickly acquire funds (Högselius & Kaijser 2010). As a result many firms were sold, either wholly or partially. Today 60 per cent of the 220 firms producing district heating in Sweden are wholly owned by municipalities (Granström 2011). Another 17 per cent are co-managed by municipalities and other actors and the remaining 23 per cent are owned by private, state or other interests. When looking at the total sales volume, municipally-owned firms own 77 per cent of the distribution networks and answer for 66 per cent of the heat delivered (Aronsson & Hellmer 2009). The firms have been under pressure from stakeholders, mainly customers and suppliers, to be more responsive to their demands (Söderholm & Wårell 2011), and in 2008 new regulatory changes were implemented to make the firms more business-oriented. This review shows how municipal district heating has moved from being a bureaucratic institution to a range of firms active on competitive markets. Municipal firms are responsible for a considerable share of space heating and have been forced to develop business models in order to maintain legitimacy for their owners and customers. The municipal district heating sector thus contains firms with newly formed and still-forming business models.

Method

Narratives about business model formation can probably be collected from almost anyone who has been involved with a firm going through such a process. Top managers, who have a decisive influence on the course of development of a firm, represent the group of potential respondents who are most likely to have intimate knowledge about such processes. In order to collect narratives, top managers were approached about their willingness to participate in a study, among these ten firms agreed to participate. All of the firms in the study had gone through major organizational changes during the last two decades and a review of their accounting data showed that they had all made considerable investments in order to change their production system in some way. The participating firms included conglomerate energy firms with district heating as a subdivision, smaller firms focusing exclusively on district heating, and firms which only focused on parts of the traditional district heating value chain, such as production or delivery.

According to Feldman et al. (2004), narratives will naturally occur in an interview, since the respondent will try to find appropriate examples to the broader themes being discussed. However, narratives might emerge more or

less frequently within an interview. Other researchers therefore believe that there is a need to tease or compel the respondent to produce narratives (e.g. Clandinin & Connelly 2000, Geiger & Antonacopoulou 2009). In line with the latter perspective, questions were posed in such a way as to encourage the respondent to exemplify through some kind of contextualization. In total, 22 representatives participated, and among these six were CEOs and nine were business area managers. No references to business models were made in the interviews. Instead questions revolved around those elements and relationships that form the basis of a business model as presented by Morris et al. (2005), and focused on encouraging the respondent to describe how those issues had developed over time. The questions also dealt with the relationship to customers (Teece, 2010), production (Amit & Zott, 2001), owners (Morris et al. 2005) and sustainability (Stubbs & Cocklin 2008). The lengths of the interviews varied between one and a half hours and two hours and forty-five minutes. All interviews were taped and transcribed with a low level of inference in order to capture details which might have passed the interviewer by during the interview (Silverman 2006). Quotes that were representative of the findings were translated verbatim and then rewritten in colloquial English.

The study is possible to classify as a window study (cf. Czarniawska 1997) in the sense that it approaches the respondents in order to collect and interpret their retrospective constructions of reality. This follows the line of argument pursued by Weick (1995) in his discussion of sensemaking, as well as Czarniawska's (2012) description of retrospective accounts. Narratives are not uniform even within organizations. Instead several narratives about the same event may coexist. These may change constantly due to the negotiation among members of the organization over their meaning for them and for the organization as a whole (Hardy & Phillips 2004). Which narratives that come to the researcher's attention is therefore dependent on the discretion of the respondent. This means that the respondent has considerable power over which windows are opened for the researcher. The result is, as Czarniawska (1997) describes it, a situation where the interview becomes a negotiation between the respondent and the researcher about what is important.

The analysis was conducted in an abductive manner in the sense that the texts were critically read (Czarniawska 1997) and interpreted in relation to each other. The interviews were continuously reviewed and compared in order to improve the quality of the questions and to find analytical categories beyond those presented in the framework above. Once the interviews were

completed the answers were read through once again and, based on the repetition of patterns, it was decided that further inquiries would not produce further insights. A final reading of the narratives was then conducted in order to establish the classification of the elements proposed in the analytical framework. Burke's (1969) terms were identified in every narrative and a short synopsis of the narrative was produced with these terms. Each term was then evaluated in order to find opposing properties within and between narratives with different outcomes. Outcomes were assessed on the basis of the content of the particular narrative, the relationship between it and other explicit statements, or a contextual interpretation.

Findings and analysis

The transcribed interviews contained 270 narratives of varying length. Some were only a few words long while others ran for up to a thousand words. Applying the framework resulted in the identification of oppositions associated to each of terms suggested by Burke (1969) (see Table 1). The opposition found in the act element was related to the narrative technique which the respondent used when narrating, while the other oppositions were related to the properties of the terms. The dichotomies were found in most of the narratives but there were narratives that did not fit with this kind of division which are listed as other.

The most noticeable opposition tied to the act was the manner of narration. Barry & Elmes (1997) refer to Bakhtin (1984) and suggest that strategy related narratives may be narrated with either a single voice or logic, conducting a monolog (monophon) – for example taking only the perspective of the narrator or only accepting one logic as the truth – or with multiple voices or different coexisting logics (polyphon) – presenting dual or multiple often-conflicting views or ways of reasoning. By narrating in this way it is possible to provide agents with voices and strengthen an argument or a plot component (Barry & Elmes 1997). In this paper the label “polyphon” is used when the narrator expresses different logics about a topic and where either the actors or the narrator conduct a dialogue – explicitly or implicitly presenting reasons for and against the position that the main agent or narrator takes. “Implicitly” refers here not only to the unspoken but also to the use of prosodic devices (auditory aspects of speech) to portray polyphony – a method which is frequently relied on in spoken language (Günthner 1999). It is thus indicative of a somewhat weaker form of polyphony than that which Barry & Elmes (1997) discuss.

Table 1: Oppositions in all narratives

Term	Property of term	Property of term	Other	Sum
Description of the act/plot	Monophon	Polyphon	0 (0 %)	270
	116 (43 %)	154 (57 %)		
Scene	Closed	Open	76 (28%)	270
	39 (14 %)	155 (58 %)		
Agent role	Rigid	Flexible	38 (14 %)	270
	63 (23 %)	169 (63 %)		
Agency/tool used	Obscure	Comprehensible	92 (34 %)	270
	23 (9 %)	155 (57 %)		
Purpose behind the act	Exclusive	Inclusive	86 (32 %)	270
	47 (17 %)	137 (51 %)		

As described by Barry & Elmes (1997), the polyphonic style gives rise to multiple voices that can work as conduits for several – sometimes opposing – perspectives or positions. Through a “dialogical authorship” the narrator may thus display to the listener how different logics coalesce as the narrative moves along (Barry & Elmes 1997). It is thus likely that this style has been used to show the interviewer the narrator’s understanding of an issue, which tends to involve several stakeholders with conflicting agendas. It is also possible that the polyphonic narrative style is a way of showing the listener that consensus is important for the narrator. This could be a peculiarity of the Swedish cultural setting, which is widely considered to emphasize consensus-building (Pedersen 2010, Havaleschka 2002).

While analyzing the description of the scenes, it became clear that they were presented as either closed or open (see Table 1) to the agents involved in the narrative. Here, “open” or “closed” refers not only to the possibility for

actors to enter the scene, but also the possibility of perceiving, understanding or interacting with the action taking place on the scene. The scenes were often described as arenas in which the agents interacted. In general the scenes were also described as more or less tangible in the sense that they were physical or imagined locations. The least tangible of the scenes was the national political arena – on which political battles were fought. Tangible scenes were project sites, offices and meetings between actors. Many of the narratives that took place on a national level were characterized by conflicts between different groups, such as representatives of the firm or the district heating industry and competitors or national politicians. The narratives that took place at the local level did not contain this kind of conflict. This is understandable since the municipality or an extended regional area is where the firm finds its stakeholders – groups with which the firm needs to have favorable relations.

The narratives contained conspicuous individuals or roles which were exposed to opportunities that would either accelerate or slow down change. These characters influenced both the orientation of the development and the available choices of solutions to challenges encountered. The most important attribute of these agents was the role or identity which they were supposed to fulfil. Studying the identity or role of the agents, it became apparent that these shifted throughout a specific narrative. Agents were flexible in order to achieve some type of goal, and the ability to change was associated with a beneficial outcome. The division between flexible and inflexible was also the opposition that colored the agent term the most. Analyzing the different types of agents involved in the narratives characterized by the flexible-inflexible opposition, it was established that there were six model characters. Among the main agents there was the inflexible employee or manager, who focused solely on district heating as a technological system, and the more flexible employee or manager, who had an interest not only in technology but also in the social and ecological side of the business. The rigid main agent was described as competent but uncompromising, which made him unable to change his standpoint on issues that would later be revealed as crucial. The flexible character was described as having an ability to perceive when it was time to change position on an issue and by doing so enabled a beneficial narrative outcome.

Among the co-agents, the rigid customer – who does not act in the way that the managers expect or want – was a recurring character. In contrast, board members or owners were often described as flexible – although ignorant – and they were often transformed into supporters of the strategy championed

by the CEO. Among the counter-agents, the rigid side was represented by a potential customer who refuses to buy district heating due to a personal conviction that the district heating firm is a monopolistic actor. The flexible counter-agent can be exemplified by a supplier who agrees to change terms in contracts in order to close a deal. District heating is a complex and expensive infrastructure product with long investment horizons. Scale and profitability are dependent on the successful planning and execution of a large socio-technical system (Summerton 1992). This means that business arrangements to a large part consist of the management of long-term relationships with different stakeholders. Producers, customers and suppliers need to have the possibility of re-evaluating their positions. The narratives thus describe the role of flexibility and rigidity in relation to particular issues.

Within the narratives there was a plethora of different tools that it was possible to classify into two groups: tangible objects – such as fliers for advertisement campaigns or bills, and abstract means – such as activities in the form of dialogue, meetings, planning, pricing or organizational changes. Among the attributes that these tools displayed there were two that were clear oppositions, in that agency was presented either as obscure or as comprehensible to the narrator, agent or secondary agents (see Table 1). Obscure tools occurred in situations where the agents did not see or understand the workings of the tools that were deployed. Such tools were often seen as insufficient drivers of change. Comprehensible tools were those described as being understood by or revealed for the agents. Examples of this opposition can be found in narratives about the interaction with customers. Here the transparency of the price model was elevated as being of the highest importance. Costs associated with production may vary greatly over time, which means that there is a need to adjust the price when, for example, auxiliary power is used or when fuel prices rise unexpectedly. The pricing model thus contains a number of parameters which may be used to reflect fixed and variable costs that can be used for risk adjustment (Fredriksen & Werner, 1993). A complex model is, however, problematic when communicating with customers. Consequently both the construction of the price model and the ability to explain how a customer should interpret the price model were narrated as important factors for success.

The purposes described in the narratives can be categorized as being exclusive or inclusive of other agents in the narrative (see Table 1). An exclusive purpose was, for example, value creation which was aimed at one specific group of actors or one type of value, such as monetary goals. The direction of value towards specific groups was associated with problems

such as conflicts with the excluded groups. Descriptions of inclusive purposes portrayed, for example, several types of value being generated or value being distributed among several groups of actors.

Narrative outcome and oppositions

Assessing the outcomes of the 270 narratives it was concluded that 161 had beneficial, 55 detrimental and 54 neutral endings. The oppositions were found to be linked to the different outcomes (see Table 2).

Table 2: Oppositions by narrative outcome.

Terms		Detrimental (n. 55)		Beneficial (n. 161)
Description of the act/plot	Monophon	28(51 %)	Polyphon	105(65 %)
	Polyphon	27(49 %)	Monophon	56(35 %)
Scene of BM formation	Closed	35(64 %)	Open	131(81 %)
	Open	8(14 %)	Closed	3(2 %)
	N/A	12(22 %)	N/A	27(17 %)
Agent identity	Rigid	37(67 %)	Flexible	132(82 %)
	Flexible	16(29 %)	Rigid	14(9 %)
	N/A	2(4 %)	N/A	15(9 %)
Agency/tool used	Obscure	20(36 %)	Comprehensible	120(74 %)
	Comprehensible	18(33 %)	Obscure	0(0 %)
	N/A	17(31 %)	N/A	41(26 %)
Purpose behind the act	Exclusive	30(55 %)	Inclusive	117(73 %)
	Inclusive	5(9 %)	Exclusive	10(6 %)
	N/A	20(36 %)	N/A	34(21 %)

The positively charged properties were particularly frequent in the narratives with beneficial outcomes. A narrative could contain one or several of the oppositions. There was no narrative with a detrimental or beneficial outcome that did not contain any of the negatively or positively charged oppositions. Some of the narratives contained all of the positively or negatively charged terms. An example of a narrative with beneficial outcome with all of the positively charged terms was found in an interview with a CEO from a small firm.

The CEO narrated about the challenges associated with the opening of a new urban area located a considerable distance from the firm's established distribution grid. The quote starts where the CEO introduces the area to the interviewer. The introduction is not part of the narrative but it lays the ground for the coming story by contextualizing it and presenting how difficult it is for the CEO to find room for the new area within the firm's existing business model.

CEO: "We have a new urban area [Name] here and right now they are building stage two where there will be more detached houses, bungalows and such. We made a deal with the builders that we would make an effort and that we would have 90 per cent district heating in the area. It is a partnership, as it is called, but the developers build fairly energy efficient houses so I do not see any profits arising from that, but we let them in. They will contribute marginally. [...]"

Jon: "[...] Would you mind describing the new area and the project? How did it come to happen?"

CEO: "Yes. It is a peripheral area of the city and because of that we had no infrastructure close by. We had some pipes going in that direction, but the capacity in those pipes was not enough. We would have been forced to lay down thicker pipes, all the way from the central urban area. So we made some calculations on that scenario. During the same process we looked into building a provisional furnace for wooden pellets in connection with the new school that was being built. Naturally, the members of the partnership wanted to build the school first, but we did not want to lose that sales potential so we made calculations on the furnace while planning to put down pipes to connect the school to the district heating network some years later. However, we could not get any profitability out of this project. It was just too expensive. So we said to the project partners that we could not make this economically viable. I told them: 'Just go with geothermal heat pumps up there!' During this back and forth discussion we also did an environmental impact assessment and discovered that the electricity for the heat pumps would make that solution dirtier than district heating. So, that solution did not seem to be very friendly to the environment. With that

information we initiated a good dialogue with our owners that resulted in an issuance of shares directed to the municipality. We ended up getting enough money from the owners to pay for the new pipe.”

In this narrative the CEO describes how the firm wanted to be a partner in the creation of the new urban area, encountered severe challenges that threatened their traditional business model, attempted different solutions and finally – due to the flexibility of a co-agent – succeeded in finding one that worked. The story is classified as polyphonic since the narrator expresses understanding and acceptance of the desire to build the school first and the partnership group’s implicit necessity of finding an economical solution that is best for the group and not for the firm. The agents (main agent – the firm, counter-agents – the partnership group, co-agent – the owners) are all flexible and willing to change solutions based on shifts in financial and environmental arguments. The scene in which the actors engage is open in the sense that the actors are aware of what is going on and can act on events and information provided in the scene. The tools that are used, such as the calculations, are understood and accepted by all the agents involved and are thus classified as comprehensible. The purpose – to develop the area with everyone’s best interest in mind – is inclusive. This ‘typical’ success story reveals an image of an open firm with a desire to compromise and create solutions through the use of transparency in order to satisfy the stakeholders involved.

In a typical narrative with a detrimental outcome, the business model formation process fails due to the presence of one or more negatively charged oppositions. The terms indicate an unattractive cloak-and-dagger narrative that can be exemplified by another quote from the interview with the CEO introduced above. The narrative describes how the district heating firm (the main agent) tried to re-negotiate a contract and failed due to the suppliers’ (the counter-agent) inability to be flexible and their pursuit of an exclusive purpose, namely profits.

CEO: “We are doing an overhaul of our business model and we have announced that publicly. We have collaborated with [Name]. A 15-year long contract is about to expire and we have decided not to renew it. The reason for that is the following. We approached them and asked for a new 15-year contract. Together we wrote an initial letter of intent that covered possible investments and an option to build a new production facility. We might need to invest in another biofuel facility and we need to lower the prices to the customer because we are ranked high above the national average. So we wrote a letter of intent that stated that we would agree to lower the prices and start new production and find a new 15-year contract.

Well, they went home and did some calculations and instead they wanted to have a new price hike, right away! I can tell you, our customers would not have taken that well. It would have meant the death of district heating in this area. So that left us with no other choice than not to renew the contract.”

The narrative is told in a monophonic style, describing only the perspective and logic of the main agent – the district heating firm. The narrative contains two scenes, the meeting between the representatives from the two firms and the retreat of the counter-agents to their office. In the second scene the narrator was not able to participate or see what was going on and it is therefore assessed as closed. The calculations are not presented to the listener and appear obscure. The counter-agents are rigid in the sense that they refuse to meet the requests of the CEO. Their attempt to introduce a price increase signals an exclusive purpose behind their actions, prioritizing profits over a lowered price.

Each of the oppositions presents in itself a compelling reason for success or failure of the business model formation. Bundled together the terms generate narratives that are noticeably familiar and attractive in their simplicity. Consequently, these typical narratives appear to be powerful vehicles for the transmission of the knowledge or worldview that a manager holds.

Discussion

Returning to the general issue of narrative analysis of business model formation processes it can be said that Chesbrough’s (2010) critique of business model formation research is an outstretched hand towards the field of sensemaking research. Consequently, the study of narratives is a logical next step for business model formation research. As we have seen can a narrative approach shed light on the sensemaking involved in business model formation (cf. Tikkanen et al. 2005) and provides the possibility of interpreting and exposing contextually-framed dependencies through semiotic readings (cf. Czarniawska 1997). A narrative approach reveals how and why different meanings are infused in artifacts and actions. It identifies properties which play an important role in business model formation, and suggests reasons why certain of these properties are elevated by the narrator. The approach also allows the listener to learn from the narratives that the managers convey.

Narratives consist of and create a context that limits the choices that are available, as well as the arguments that are valid for deciding between possible alternatives (Weick 1995). The “confusion” that clouds managerial decision-making about business model formation (Chesbrough 2010) should

be seen as the struggle to make a decision which is congruent with an existing contextually-based worldview (cf. Weick 1995; Parry 2003; Weick et al. 2005; Maitlis 2005; O’Leary & Chia 2007). The results from this study are indicative of how the managers perceive and justify the development and outcome of their business activities. Fincham (2002) sees narratives of success and failure as reflexive mechanisms that influence change within organizations through the labeling of events. The oppositions found in the material posit labels that show what can be seen as acceptable and not within these firms. As such, the labels might influence the development of organizations, as proposed by Geiger & Antonacopoulou (2009) and Näslund & Perner (2012). Consequently, the properties of the narrative terms both function as guides for managers and as tools to explain to a listener why events have developed in a certain way.

Business model formation research stresses the importance of openness (Chesbrough 2007, Chesbrough & Schwartz 2007) and places trial-and-error learning at the heart of the formation process (Sosna et al. 2010). In the light of such research, this study presents supporting results, i.e. openness of scenes, flexibility of agent roles and transparency of means, which are contextually anchored in unique empirical material. In relation to previous research the inclusive purpose as a key to success is a new factor. It might be associated to the spread of stakeholder oriented managerial attitudes or as a remnant of a municipal heritage that has been reshaped in the new managerial narratives.

According to Geiger & Antonacopoulou (2009), a study of narratives makes it possible to see behind the facade maintained by managers and to peel away the layers of self-legitimizing and self-reinforcing tendencies that they might fall prey to. Meyer (1995) also claims that it is possible to reveal organizational values through the study of narratives. The ideals and values that the narratives about success convey are of a democratic and communal nature. This stands in contrast to what one would expect when considering that the case firms have been active in increasingly competitive markets (cf. Westin & Lagergren 2002) with intensified institutional pressure to adopt more corporate values (e.g. the 2008 law on business like management of municipal district heating firms). When considering the emphasis on flexibility, openness and inclusiveness as success factors, it is noteworthy that district heating firms have been criticized for monopolistic behavior (Söderholm & Wårell 2011), something that does not match the emphasis of such values. It is possible that the managers have learnt from the past and present a successful actor as one that is welcoming and open to stakeholders,

flexible in its role, pedagogic about the tools that are used and setting goals with the benefit of the many in mind.

As narrative research is subjective (cf. Barry & Elmes 1997), the interpretations offered in this paper constitute one out of many possible readings of the material. When studying narratives it is important to remember that it is often that which disturbs or interests us that need explanation. It is not the logic of the explanation that we require, but rather its connection to our contextual understandings, the narrative fidelity (Fisher 1987), that brings satisfaction and thus saturation. This implies that the interests and predisposition of the researcher or interviewer inescapably influences the results that come out of narrative research. Kuhn (1996) asserts that this type of context dependency is not exclusive to knowledge generated through narratives, but that it also is a component of scientific inquiry. Knowledge produced through both ventures is judged by its conformity with a contextual understanding. Despite the subjective nature of narrative science, the fact that this paper presents plausible explanations, by associating that which has been interpreted with earlier texts (cf. Czarniawska 2012), makes it possible to claim that it generates knowledge.

Conclusion

This study was initiated due to an identified lack of research on business models and business model formation that embraces sensemaking and narratives. By merging an approach to narrative research proposed by Feldman et al. (2004) with Burke's (1969) five narrative terms (act, scene, agent, agency and purpose) and a business model framework proposed by Morris et al. (2005), the purpose of creating a narrative framework for the study of business model formation was fulfilled. The framework identifies business model-related narratives and facilitates their analysis by suggesting analytical categories which can be used for the search of oppositions and tensions within the empirical material (cf. Feldman et al. 2004). The framework was applied on 270 narratives of varying length that were gathered through interviews with 22 managers working in the recently deregulated Swedish municipal district heating sector.

Since narratives function as guides on what constitutes success and failure within a particular context the narratives were divided into three categories where the outcome of the narrative was categorized as being beneficial, neutral or detrimental to the business model formation. The analysis of the narratives show that the managers on the one hand tell success stories with accessible scenes, agents that were malleable or willing to adapt, instruments

that were comprehensible and easily understood, and inclusive purposes which directs value to a wide circle of relevant agents. On the other hand, narratives with a negative outcome portrayed closed scenes, inflexible agents, cryptic or obscure means and value production that was focused on a single or exclusive set of agents. Based on these interpretations, the managers appear to describe key stakeholders, such as customers and owners, as guides and partners in the development of their firms. The narratives were permeated by democratic values and a sensitivity towards stakeholders which contradicts the critique that has been leveled against firms in the sector. The results support research that stresses openness, transparency and flexibility as key factors in business model formation processes but adds the dimension of inclusiveness towards stakeholders as a success factor.

Finally, as narrative analysis of business model formation creates a contextually based understanding of the narratives that guide managers, the suggested framework helps both researchers and managers to better understand the motives that lie behind managerial statements and actions in relation to decision making on business model formation.

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Paper IV

Paper IV

A communicative perspective on the business model concept

Abstract

The business model has become a popular topic in business administration research, but there is disagreement about how the business model is best conceptualized as a representation of the firm. Existing frameworks created for the study of business models deal poorly with change, both within and outside the firm. This paper enters the debate by analyzing the contemporary RCOV framework – which has been suggested to ameliorate the issues relating to change – and examining the assumptions which it, and many frameworks like it, is built on. Inspired by recent developments in the fields of philosophy of science, business model research and the communicative theory of the firm, I propose an alternative perspective on the business model concept and propose a new type of business model framework.

Keywords: business model, framework, communicative theory of the firm, pragmatism

Introduction

During the last decade the business model concept has become increasingly popular in both professional and academic circles (Baden-Fuller & Morgan 2010). It has been presented as a new and promising unit of analysis in relation to the creation and capture of value at firm level (Zott et al. 2011). The explanative power of the concept is thought to be great. Research on e-business (Amit & Zott 2001) and high-tech firms (Chesbrough & Rosenbloom 2002, Chesbrough 2010) indicate that the business model might be more important for profitability than technological prowess. Teece (2010) even suggests that all firms active on competitive markets rely on a business model in order to produce and capture value, and that the ability to find a suitable business model is especially important for firms that are active in markets characterized by dramatic and frequent change.

Most definitions of the business model concept present it as an activity-centered and holistic description of how a firm produces and captures value within a specific context (Zott et al. 2011). Such definitions indicate that the

business model concept builds on a tradition of model use which presents the relationship between reality and its representation as dyadic in nature, and that the use of the business model is driven by two underlying ideas. The first idea is that there is a configuration of concepts, resources, processes and relationships that exist independently of the observer and that this configuration matters for the creation and capture of value. The second idea is that it is possible and meaningful to conceptualize a representation, a business model, of this configuration.

Demil & Lecocq (2010) describe how business models are, in general, used in two diametrically different ways. The first is static, utilizing business models as something akin to blueprints of different organizational and economic properties. A business model thus serves as a scientific model which is utilized for hypothesis generation and testing, as well as description and classification of businesses (cf. Baden-Fuller & Morgan 2010). The second use is transformational and focuses on business models as a means of dealing with or initiating change. Both categories are seen by Demil & Lecocq (2010) as having drawbacks which make them problematic. The static category excels at exploring causal relationships and classifying types of businesses but fails to deal with and facilitate change, while the opposite is true for models belonging to the transformational category. Demil & Lecocq (2010) try to overcome the divide between the two types by producing a new framework largely based on a Penrosian view of value creation. They suggest a framework for studying the business model that describes resources and competences, organizational structure and value proposition (abbreviated as RCOV) as components that decide the structure and volume of costs and revenues and therefore also explain profitability. The RCOV framework produces a snapshot of the organization and focuses on relationships and changes within and between the different components which the framework contains. The components are intentionally defined in a broad manner in order to make the framework inclusive and general. It is also explicitly created in such a way as to avoid the holistic view which is otherwise often presented as a general trademark of business model research (e.g. Zott et al. 2011).

The RCOV framework represents an attempt at making the business model concept a more functional tool for researchers and practitioners. Analyzing the framework I have found that it does have six features that call into question whether the authors achieved what they set out to do. The features, or rather, shortcomings are: i) a structuralist perspective on the relationship between model and reality, ii) an ambiguous conceptualization of change,

iii) a reactive view on the process of business model formation, iv) a lack of reflexivity between the firm and its environment, v) an over-simplification of manager cognition, and vi) a strong link to a theoretical tradition of competitive advantage research that has influenced the resource-based view. Each one of these shortcomings hinders the authors from reaching the goal of producing a business model definition that manages and facilitates change at the same time as providing a way of describing the creation and capture of value by the firm. The shortcomings are discussed in detail in the following section.

This paper is an attempt at achieving that which Demil & Lecocq (2010) set out to do by ameliorating the shortcomings of contemporary business model frameworks. Based on an analysis of these shortcomings, an alternative perspective on the business model concept is developed. From this perspective a new framework is created that goes some way to solving the shortcomings identified by Demil & Lecocq's (2010).

Review of the RCOV framework

The first of the shortcomings of the RCOV framework is so deeply rooted in the theoretical perspective presented by the authors that it is difficult to detect unless one scrutinizes the implicit assumptions on which their framework rests. In essence, Demil & Lecocq (2010) link a theoretical perspective on abstract properties of the firm to a model. They present the connection between the business model's different parts and the properties of these parts as being predictive of certain types of outcomes. This indicates that the RCOV framework is based on a structuralist perspective on the relationship between model and reality. This is a feature that the framework shares with most business model frameworks that consist of a configuration of components (e.g. Morris et al 2005, Shafer, Smith & Linder 2005) or activities (e.g. Zott & Amit 2010). According to Knuuttila (2005) a structuralist perspective describes the relationship between world and model as being dyadic; there is reality and an abstract depiction. Business model research in general appears to be influenced by this traditional perspective on models. Baden-Fuller & Morgan (2010), for example, categorize business models in three ways: i) as tools for categorizing within a taxonomy, ii) as tools for scientific inquiry in the sense used by biology, mathematics and economics, and iii) as a recipe for how a firm should be configured in a particular context. All these categories appear to rely on the model as being a representation of something that exists independently of the user's cognition. According to the structuralist perspective, the usefulness of models rests on their capacity to be isomorphic with the target system. From this perspective

a model is a representation of reality that is independent from the user and that can, due to its isomorphic capabilities, mimic trajectories and therefore be used to forecast outcomes. The representative power of models is thus contingent on its capacity to mimic relationships found in reality (Knuuttila 2005).

Considering developments in the field of philosophy of science, which question the use of structuralist perspective on models (e.g. Giere 2004, Knuuttila 2005), the endeavor of linking a business model framework to reality in a structuralist manner is problematic. The capacity to mimic, or to be similar to reality, is in itself dependent on the medium that is used and the agent using the model. Language, particularly, is considered to be a cultural artifact, infused with meaning. This indicates that the representational power of a model is contingent on cultural understanding (Giere 2004). The result is that the structuralist perspective, which posits the dyadic view of the relationship between model and reality, needs to be replaced by a perspective that is at minimum triadic, including model, reality and the intention of representation (Giere 2004, Knuuttila 2005). As intentions are by necessity contingent on cognition, the agent using the model becomes a key aspect in the functionality of the model. The result is that a model's ability to represent is dependent on the claim of representativeness made by some human actor (Giere 2004). Furthermore, the real world does not consist of structures which can be neutrally portrayed in a sense that fits with the structuralist view of the representational capacity of models. Instead it is the observer who creates and applies artificial structures to the model (Knuuttila 2005). The relationship between model and reality is thus far more complex than what is suggested by a structuralist perspective. Instead models should be seen as a form of cultural artifact. McCloskey (1992) completely severs the ties to the dyadic perspective when she describes economic models – to which business models are often similar (Baden-Fuller & Morgan 2010) – as metaphors. She places them in a rhetorical tetrad of fact, logic, metaphor and story, which forms an arsenal of tools which the researcher may use to convince her audience. Another example is Magretta (2002), who believes business models to be much more than mere attempts at imitating scientific models. In essence, she claims, they are narratives, tied to an economic logic, which explain how a business works. Being contingent on intention and cultural understanding, the use of models appears more relativistic than objective, and the conclusions reached through them less possible to knock down through falsification than what is desirable from a positivistic perspective. It is thus necessary to dismiss a dyadic conceptualization of the

relationship between model and reality as a basis for the business model, and search for something different.

It is most likely the case that beliefs and theories about that which is being modeled have had an impact on the conceptualization of the RCOV framework. The five remaining shortcomings can therefore be interpreted as symptoms of underlying theoretical positions on the nature of the firm and the individuals that work in it. The second shortcoming – an ambiguous conceptualization of change both inside and outside of the firm – originates in the RCOV framework's inability to assess what changes are important to the framework. The authors even point out that, just as the business environment changes constantly, the underlying business model is always changing in some way. Much of organizational research also concurs that change is something that is endemic to organizations (Thomas et al. 2011). Hence, the question is when change should be considered as noteworthy enough to be reflected in the business model framework. Demil & Lecocq (2010) concede that it is difficult to say when change should be considered important enough to impact the business model framework. They see substantial structural changes in costs and revenues or the organizational structure of the firm as being hallmarks of such noteworthy business model change. I would argue that it is impossible to decide when change is substantial in an objective manner worthy of the structuralist perspective the authors have adopted. The process of making such a decision will instead reflect the power of actors to push interpretations onto others. Furthermore, structure has also been shown by Waterman et al. (1980) to be an inefficient concept to rely on when trying to entice or manage change in organizations. It is therefore questionable if a definition that focuses on structure is relevant for a framework that aims at managing change. Research points instead to organizational change as the outcome from the negotiation between actors over meaning (Hardy et al. 2005, Tsoukas 2005).

The third shortcoming, a reactive view on business model formation, is based on how Demil & Lecocq (2010) describe how the business model is influenced by change. They suggest that the business model should be adapted to changes in the business environment, but that it may also change, independently of managerial action, due to changes in the said environment. Both claims imply a reactive perspective on business model formation. Such a perspective is considered by Camillus (2008) and Sharma & Vredenburg (1998), for example, to be insufficient as a value driver in markets characterized by change. Instead these authors argue that managers need to adopt a proactive stance in order to be successful in a changing environment.

Particularly intensified stakeholder interaction is considered as paramount for such progressive management work (cf. Camillus 2008, Buysse & Verbeke 2003).

The reactive view presented above can be seen as symptomatic of the fourth shortcoming – the absence of recognition of the reflexivity that exists between the firm and the business environment. Demil & Lecocq (2010) describe how it is important for managers to respond to changes in the environment, but the question of what is caused by factors outside of managerial power and what is not, is a case for interpretation. Teece (2010) points out that the business environment is in part a choice variable, by which he means that managers may create markets as well as shape and influence the business environment. This indicates that reflexivity and managers' ability influence the people that the firm interact with should be important features of a business model framework.

The fifth shortcoming is related to how managers are described by Demil & Lecocq (2010). In essence, managers are seen as reacting to change and using teleological thinking in order to decide on the best configuration of the business model. This view on cognition and rationality in connection to business model formation is criticized by Chesbrough (2010). He claims that managers are unsure about what the environment looks like and thus which business model configuration will work in a particular setting. Chesbrough's work is aligned with the field of sensemaking research (e.g. Chesbrough & Rosenbloom 2002). Other examples of business model research linked to managerial sensemaking are studies by Tikkanen et al. (2004) and Hacklin & Wallnöfer (2012). According to sensemaking research, the idea of objectively assessable rational decision-making should be replaced by that of socially constructed and contextual rationality (Weick 1995). This leads to the conclusion that the creation of contextual interpretations is an important factor when trying to understand decisions made about the business model.

The sixth and final shortcoming is the fact that the RCOV framework is explicitly inspired by Penrose's (1959) work on the growth of the firm and the role of different components of a firm to explain the results that it generates. Penrose is seen as a considerable inspirational source for research on the resource-based perspective (Kor & Mahoney 2004), and despite the fact that Demil & Lecocq (2010) claim their framework to be different from the resource-based view, it does bear some resemblance. For example, Demil & Lecocq (2010) postulate that the configuration of specific components and resources is explanatory of competitive outcomes. The resource-based view

has been criticized by Powell (2001, 2002, 2003) who suggests that the philosophical and logical basis for such a perspective is weak. Consequently, it would be advantageous to move away from that perspective when conceptualizing a foundation for the business model concept.

A new conceptualization of the business model

The shortcomings of the RCOV framework are caused by ontological, epistemological and theoretical issues related not only to the firm, but also to the behavior, power and relationships of individuals tied to or interacting with the firm. According to Kuhn (2008), dominant theories of the firm, such as the resource-based view and transaction cost economics, produce such shortcomings due to the simplifying assumptions that characterize them. Both theories are frequently used as the foundation for business model definitions. Furthermore, they limit understanding of the social side of firms and result in an instrumentalist view of stakeholders and an unproductive conceptualization of power. Kuhn (2008) claims that these theories produce mechanistic descriptions of the internal operations of the firm, conceptualize managers as more or less rational, present stakeholders as encroaching on managers' ability to control assets, and sideline symbolism and the construction of meaning, which is a large part of sensemaking research. The fundamental reason for these issues, he argues, is a conception of relationships between individuals and organizations which places communication as a peripheral activity which only indirectly points to underlying causes. Kuhn (2008) suggests an alternative approach which he calls the communicative theory of the firm.

The communicative theory of the firm is influenced by the Montreal School of organizational communication, which envisions communicative practices as the thing that constitutes organizational life (Brummans et al. 2014). Consequently, Kuhn (2008) sees co-orientation through communication as the infrastructure of organizing. Within organizations, co-orientation is achieved through a continuous exchange of concrete and figurative texts, which are abstract representations of practices and sites between individuals and groups. The exchange produces a blending or complete replacement of texts which Kuhn (2008) refers to as textual saturation. Out of the saturation process emerge authoritative texts or 'official' depictions, physically and mentally manifested, of the organization. Such depictions work as reference points for actors within the organization and for those interacting with it. The communicative theory of the firm represents a fundamentally different perspective on the firm and the individuals interacting with it, than that which Demil & Lecocq (2010) rely on when creating the RCOV framework.

The communicative theory focuses on the context dependency of interaction and elevates such concepts as sensemaking when trying to understand organizational life. Relying on the communicative theory allows for a new way of looking at the business model concept.

Since it is necessary to abandon the structuralist perspective on models, one may ask what can be used to replace it. Models are, after all, considered by many as a crucial tool for gaining knowledge about the world (Morgan & Morrison 1999). It would thus be a great loss if models were seen as useless. Powell (2001) argues that when science fails to satisfy the strict positivist demands for objectivity and falsifiability, we must replace positivist theory with a pragmatist standpoint. For pragmatists the goal of scientific inquiry, whether it be theory crafting or model construction, should be to facilitate problem-solving (Powell 2001). Pragmatist research is concerned with values associated with human action and driven by anticipated consequences (Cherryholmes 1992). The pragmatist stance eliminates the representational dilemma, since a model does not need the claim of representativeness in order to be tested. It merely needs to produce results that are more useful than existing alternatives. This leads to the conclusion that a model should not be viewed as a pure representation of something which is “out there”. Instead it should be seen as a vocabulary-dependent tool which can be used to motivate action and enact (cf. Weick 1995) environments. The business model should therefore work as a guide to explore aspects that are important to its users. Since the social sciences should strive to analyze the values and power that underpin social and economic development (Flyvbjerg 2001), a business model should explicate values and power relations. Here the communicative theory of the firm enters the scene. It builds on communication and co-orientation and highlights contextual power and interaction between individuals or groups of individuals. It is also possible to think of the business model as a particular kind of authoritative text which deals with and defines certain issues relating to the firm. The question is then what should be included in this particular kind of authoritative text? By studying previous business model research literature I have identified five topics, or rather areas of concern that constitute the business model.

The main purpose of the business model is often expressed as the portrayal of the creation and capture of value as it is conducted by a firm (Zott et al. 2011). Value creation and capture are two separate and complex issues (Bowman & Ambrosini 2000, Lepak et al. 2007). Business models often contain a sub-construct called “value proposition”, which implies that the firm presents a well-defined offer of value on a market. The modeling of

customer value in this way is thought to help to understand demand and facilitate the segmentation of markets (Teece 2010). It is however a simplification which underestimates the difficulties of value creation and capture. Rather than simply being thought of as created and then presented on a market independently by the firm, value should be understood as being co-created together with the customer (Ramaswamy 2011, Vargo & Lusch 2004, Prahalad & Ramaswamy 2004, Ramirez 1999). This indicates that there is a necessity for managers to identify and interact with the receiver of value in order to understand both what the value of the product or service is in the eyes of the customer and to grasp how that value is co-produced. A business model must therefore be explicit about who the customer is, what value that customer sees in the product and how the value is co-produced with the customer (Prahalad & Ramaswamy 2002). The business model thus needs to explicate what drives the customer to engage in the co-production of value.

Much of business model research has also been preoccupied with the capacity to explain how value is produced and how the delivery of the product or service influence value (see for example Amit & Zott 2001, Morris et al. 2005, Magretta 2002). Consequently, the construction and delivery of value are areas which are to be included in a business model. However, value is not only appropriated by the consumer but also manifested for the firm through that which the purchasing party is willing to pay (Bowman & Ambrosini 2000). The capture or realization of monetary value, through pricing, has therefore been another concern for business model researchers (e.g. Teece 2010).

Another important issue for business model researchers has been the relationship between the organization and major stakeholders. The mapping of such relationships explains expectations on and continuation of the conditions under which the business model may produce value (Morris et al. 2005), while sustainability is seen as the key issue for business models in order for firms to have a legitimate and continuing presence (Stubbs & Cocklin 2008). Kuhn (2008) describes how individuals active in organizations have the possibility of participating in finite and infinite “game play”. Games provide actors with a purpose, since they create a context which sets goals, suggests valid strategies, assigns roles, defines audiences to whom the game should be presented, and even provide definitions of success and failure (Long 1958). Finite games, those with a fixed goal and time frame, are frequent both within and outside organizations and are explored theoretically through game-theoretic models. Infinite games, Kuhn (2008)

claims, set themselves apart by providing the basis for a continuing renegotiation of roles and goals for those interacting with an organization. This means that continuity, or as Kuhn (2008) would put it, the continuing game play, is a concern for a business model, otherwise the firm would merely be a one-off deal.

To sum up the five key areas of concern (i.e. matters that are of particular interest in relation to the authoritative text that the business model constitutes) are: i) the value receiver (the identity and motives of the one who consumes and co-creates the value), ii) the value composition (what the value consists of), iii) the value construction (how the value is produced and delivered), iv) the value realization (how the value is realized and transferred into other forms such as money), and v) the value continuation (how the firm continues to deliver value to its stakeholders).

It is important to consider whether or not there actually should be a normative statement about the inclusion of specific concerns in a business model definition. The suggested areas of concern bear some resemblance to the questions that Morris et al. (2005) present as basis for their structuralist definition of the business model. There are, however, important differences. As this framework is based on a non-structuralist perspective, the content should be seen as a suggestion which may be modified based on the context rather than as a complete list of topics. The exploration of the business model as well as the content of the concerns should not be conducted through arm-chair reflection but should rather be based on the exposure of stakeholder views to each other. In order to achieve this I propose that the business model framework should be conceptualized as a number of dialogues, which are used to explore the areas of concern suggested above. A dialogue requires at least two voices and is by definition a participatory and contextually understood activity, which entails a high degree of reflexivity and change. This might appear strange, but the term “model” can be applied to a great variety of different types of physical and linguistic objects created with the purpose of representing some phenomenon (Giere 2004). To say that the business model framework consists of dialogues is therefore both in line with the heterogeneity of model use and with a pragmatic approach to science. When perceiving the business model as ongoing dialogues about particular concerns, its analysis becomes, to a large extent, a study of rhetoric. This fits with a rhetorical view on economic language (e.g. McCloskey 1998), which explores power and values. Consequently, the business model should be envisioned as a tool for

understanding the firm-related language games (cf. Wittgenstein 2009) that managers are taking part in.

Comparing the communicative business model framework with the RCOV framework on the issues of the shortcomings produces the following results. Since the communicative framework is based on a pragmatist perspective there is no issue of representativeness for the framework. The framework is only seen as guidance for dialogue between parties, not as an abstract depiction of mechanisms within or around the firm which requires isomorphism to provide scientific legitimacy. Since change is seen as taking place in texts, it is both contextual and qualitative. The communicative theory describes managers as not only taking in texts but also constantly producing and forcing texts upon the surroundings. The result is a vision of managers which posits sensemaking as being at the core of manager cognition and thus envisions contextually rational, fully reflexive managers capable of proactive decision-making.

Discussion

Much of earlier research on business models has operated on the premise that there exist stable constructs for managers and researchers to find, and that it is meaningful to try to find and catalogue them. Since there is no stable non-agent basis for specific constructs over time, and since several meanings of the constructs can coexist, finding, defining and cataloguing each setup is a Sisyphean task. Instead of trying to tie the business model concept to an objective “reality”, it should be tied to the use of language. By doing so the framework contextualizes action and texts with intention (cf. Schuetz 1945) in an explicit way. The proposed framework severs the tie to the structuralist perspective on business models and focuses on the construction of meaning at individual and group level, instead of trying to find a neutral position which reflects an abstract “reality”. As the framework is based on the communicative theory of the firm, the definition embraces the view that there is a constantly ongoing saturation process associated with the act of organizing. The framework is shaped by the idea of the business model as a thematically demarcated tool that can be used to guide dialogues between, for example, firm representatives and stakeholders. The framework is envisioned as being used to explore and develop the creation and capture of value through dialogues that deal with five areas of concern related to the firm. It is, after all, in the interaction between texts, in the communication between stakeholders, where value is recognized, expressed and enacted. By elevating the importance of interaction and communication, these activities become central to the business model. The framework explicates the

importance of influencing stakeholders to produce and realize value and enable the continuity of the firm. The use of the communicative framework should therefore be driven by three purposes: to explore, to influence and to create perceptions related to the concerns.

Change was the core issue that gave rise to the RCOV framework (Demil & Lecocq 2010). The communicative theory of the firm appears to be built on a social constructionist perspective on change and is therefore fundamentally different from the RCOV framework. From a social constructionist perspective change is constructed and enacted by the stakeholders that are connected to an organization (Lewis 2014). Kuhn (2008) describes how it is possible initiate change by challenging the authoritative texts, and a dialogical form of the business model opens up the possibility for such attempts. By searching out interaction with stakeholders it should be possible to challenge preconceptions and predispositions while gaining the opportunity for an ongoing and rapid construction of meaning and an adaptive business model formation.

The interaction and replacement of vocabularies that goes on within the saturation process appears to be related to the positive form of progress that Rorty (1989) sees emanating from conversation. Focusing on contextual understanding also offers the possibility to illuminate the positioning in negotiation in much the same way as it occurs in conversations (e.g. Davies & Harré 1991). Using the communicative theory of the firm and pragmatism as a basis for the business model concept opens up the field for a perspective on value creation which is engaging to stakeholders, and allows reflexivity between their perspectives and the texts presented by firm representatives.

It is necessary to consider what implications the suggested perspective has for empirical inquiries linked to the business model. When basing an inquiry on the communicative theory, the spotlight falls on the textual saturation process in which the exchange of concrete and figurative texts coalesces into the production of authoritative texts. According to Kuhn (2008), concrete and figurative texts share three characteristics which shape the inquiry into their contents. First, these texts have a relative permanence that enables them to be the focus of a retroactive study. Second, they tend to exist as a network of meaning rather than as sole entities. Third, both kinds of texts give rise to a multitude of interpretations among the actors who deal with them. These three properties lead to texts lingering in the organization, being interpreted and associated to each other by actors in different ways, and even presenting views which conflict with actual practice. Kuhn (2008) draws the conclusion

that it is therefore possible to approach particularly the elusive figurative texts involved in the saturation process through inference about discursive practices, actors' reports of textual content or abstraction from concrete texts. Considering these properties, it appears as if a researcher that wants to study the business model has two options to choose from. The first option is to try to follow the transformation of concrete texts, such as documents, signs and symbols with a lasting form (Hardy et al. 2005). Such an endeavor requires gathering documents which might be difficult to access due to their sensitive nature. Figurative texts appear even more elusive, since this category includes discourse-related aspects of business that are more perishable. The second option is to rely on the individuals involved in the saturation process and engage in interviews in order to open a window (Czarniawska 1997) through which to view the past. Such a window enables a negotiation between the researcher and the interviewee about what is important. Accordingly, interviews grant participants the opportunity to express their interpretation of the saturation process and to narrate how they created meaning out of preceding events or ideas of the future (cf. Weick 1995, Czarniawska 2012).

Conclusion

This paper started out by questioning the state of contemporary business model research. Even though the RCOV framework was presented by Demil & Lecocq (2010) as a way to ameliorate the different limitations of previous frameworks, it has a range of shortcomings that are problematic when put in relation to research on organizations, managerial behavior and philosophy of science. The goal of the paper was therefore to develop an alternative framework that ameliorates those shortcomings. By drawing on research from various fields, the conclusion was drawn that many of the challenges that plague previous framework definitions are derived from the theories and perspectives on which they are implicitly or explicitly based, and that a business model definition should not be based on a structuralist stance on the relationship between model and reality.

A non-structuralist framework, based on Kuhn's (2008) communicative theory of the firm and business model research, is proposed as an alternative. The definition postulates five firm-related areas of concern for the business model: i) the value receiver (i.e. the identity and motives of the one who consumes and co-creates the value), ii) the value composition (what the value consists of), iii) the value construction (how the value is produced and delivered), iv) the value realization (how the value is realized and transferred into other forms such as money) and v) the value continuation (how the firm

continues to deliver value to its stakeholders). The areas of concern are not a basis for modeling in a traditional sense; instead they are guides for dialogues between managers, employees and various stakeholders. Furthermore, the business model should be envisioned as a language tool and its use should be motivated by three purposes: i) to explore, ii) to influence and iii) to create perceptions related to the five areas of concern. Such a perspective on the business model creates a basis for dynamic renewal not only of the content of the framework but also of the framework itself.

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