



LUND UNIVERSITY

From PowerPoints to Reality - Managing Strategic Change in the Paper Packaging Industry

Olander Roese, Malin

2014

[Link to publication](#)

Citation for published version (APA):

Olander Roese, M. (2014). *From PowerPoints to Reality - Managing Strategic Change in the Paper Packaging Industry*. [Doctoral Thesis (compilation), Packaging Logistics]. Lund University LTH.

Total number of authors:

1

General rights

Unless other specific re-use rights are stated the following general rights apply:

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal

Read more about Creative commons licenses: <https://creativecommons.org/licenses/>

Take down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

LUND UNIVERSITY

PO Box 117
221 00 Lund
+46 46-222 00 00

From PowerPoints to Reality

Managing Strategic Change in the Paper Packaging Industry

Malin Olander Roese



LUND
UNIVERSITY

DOCTORAL DISSERTATION

by due permission of the Faculty of Engineering, Lund University, Sweden.

To be defended at Stora Hörsalen, IKDC, Sölvegatan 26, Lund. April 25, 2014 at 10.15.

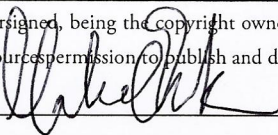
Faculty opponent

Staffan Brege Linköping University

Organization LUND UNIVERSITY, Faculty of Engineering, Department of Design Sciences, Division of Packaging Logistics		Document name Doctoral Dissertation	
Author(s): Malin Olander Roesé		Date of issue: April 25, 2014	
		Sponsoring organization	
Title and subtitle: From PowerPoints to Reality - Managing Strategic Change in the Paper Packaging Industry			
<p>Abstract: This thesis explores and describes strategic change towards increased customer orientation and innovation in the Swedish forest and paper packaging industry, an industry which has been subject to calls for new strategic directions for more than two decades. The large-scale and cost-efficient strategy, which has been the industry's hallmark, is in need of a more customer based and innovative emphasis.</p> <p>The research is inspired by different schools of thought in strategy and motivated by the limited longitudinal studies; on the link between customer orientation, innovation and strategy, and on this empirical setting. The link is of particular relevance given the emerging paradigms of dual and ambidextrous strategies in literature and practice, integrating strategies focused on cost and differentiation, efficiency and innovation – at the same time. This development further adds to the need for more insight into the gap between strategy development and implementation.</p> <p>A qualitative and longitudinal case study of one actor in the Swedish forest and paper packaging industry is carried out. Crossing several theoretical boundaries, the research contributes to knowledge on what strategic change towards increased customer orientation and innovation entails: what the challenges are, how they can be managed, and how change can be measured.</p> <p>In the case study, strategic change is found to be a time-consuming, incremental yet revolutionary process. Far from a linear journey, it is challenged by paradoxes on a strategic and organisational level formed by dual and seemingly opposing strategic intents. It is managed by expanding the perspective of the value chain and using traditional levers such as the organisational structure. But more interestingly, it is also managed by means of less orthodox ways for market learning, development and featuring of new offerings combined with faith in the direction aimed for.</p> <p>This thesis argues that being able to manage a strategic change towards this end requires an integration of rational and pragmatic thinking and doing that combines levers and measures of cultural and cognitive change with more traditional ones. It contributes to a further understanding of this challenging endeavour and to future research on competitive and sustainable development of mature industries.</p>			
Key words: Strategic change, Customer Orientation, Innovation, Longitudinal Case Study, Paper Packaging Industry			
Classification system and/or index terms (if any)			
Supplementary bibliographical information			Language: English
ISSN and key title	ISBN978-91-7473-967-1 (Print) ISBN 978-91-7473-968-8 (Pdf)		
Recipient's notes		Number of pages 234	Price
		Security classification	

I, the undersigned, being the copyright owner of the abstract of the above-mentioned dissertation, hereby grant to all reference sources permission to publish and disseminate the abstract of the above-mentioned dissertation.

Signature



Date

18/3-2014

From PowerPoints to Reality

Managing Strategic Change in the Paper Packaging Industry

Malin Olander Roese



LUND
UNIVERSITY

Copyright © Malin Olander Roesse

Front page: Photographs used by permission from BillerudKorsnäs (below), Charlotte Carlberg Bårg (left) and Erik Andersson (above).

Faculty of Engineering, Department of Design Sciences, Division of Packaging Logistics

ISBN 978-91-7473-967-1 (Print)

ISBN 978-91-7473-968-8 (Pdf)

Printed in Sweden by Media-Tryck, Lund University

Lund 2014



To Maya, Zoey, Gunilla and Annika.

To a bright, generous and fun filled future.

Acknowledgements

“I once asked a young dissertation writer whether her suddenly grayed hair was due to ill health or personal tragedy; she answered: “It was the footnotes”.

(Joanna Russ)

In my case it was the references...

This thesis is the result of a longitudinal study of a strategic change in one company. It is also the outcome of a long research journey which in many regards can be compared with that of taking a driver's license, although the extended version.

I think the seed that sparked this journey was planted a long time ago. When I was a young(er) employee I attended a kick-off where the CEO presented the company's vision, objectives and strategy – with the help of PowerPoints. I listened actively but failed to fully understand how I was supposed to contribute. Even more confusingly I did not recognize the company the CEO was describing or what I had perceived as being important strategic priorities thus far. The new strategy did require some changes, or did it? I was intrigued. Since then I have tried to develop and implement strategy myself. I have met employees in organisations faced with up to 700 power point slides of their company's strategy and the challenging task to implement it. A particularly paradoxical ordeal when the strategy requires changing from one way of perceiving the world and market needs – to another. Intrigued by this conundrum from both a management and an employee perspective I found my way back to the academic world after a decade in the public and private sectors.

There are in particular two persons who made this return possible and a deeply rewarding one too: Gunilla Jönson and Annika Olsson. Thank you – you two – for ceaselessly inspiring, encouraging and supporting me throughout this doctoral journey as my supervisors. I have learnt many things from you. And thank you Mats Johnsson for finding me in the first place!

I would also like to express my deepest gratitude to the one company who opened the door for my many questions: thank you to all at Billerud (BillerudKorsnäs) who contributed with your time and input and for welcoming my final thoughts at the

end. The Bo Rydin Foundation and Lund University, Packaging Logistics financially supported this research.

It has been a true pleasure and fulfilling experience being a doctorate student at Packaging Logistics. I want to express a big thank you to *all* of you, my fellow colleagues! Especially Märith Beckeman, my inspirational and knowledgeable roommate; Daniel Hellström and Fredrik Nilsson for always being prepared to discuss issues of methodology and theory and Henrik Pålsson, my supportive and ever challenging next door neighbour. A warm thank you for all practical and emotional support to: Erik (the rock), Jessika (coach), Robert (IT!), Cilla (care) and Rose-Marie (admin). And, thank you Eileen Deaner for great editing.

A special thank you to my co-authors: Annika Olsson (again!), Mats Magnusson (also for the much inspiring discussion on my licentiate thesis), Sverker Sikström, Helena Lindh and Sandra Silgård Casell. I would also like to thank you Lars Bengtsson, very much, for an inspiring pre-seminar and continued discussion on the development of my 'Kappa'.

There are many others who have made this doctoral project an enjoyable and inspiring journey. Among my academic colleagues and friends I am indebted to Susanne Nilsson and Susanna Bill for input and intense cheerleading (Nerdverket is formed). Thank you also, all inspiring colleagues within the PIEp network and at Integrated Product Development at KTH.

And last but not least I would like to express a wholehearted thank you to *all* my friends and family, my everyday supporters and intellectual sparring partners and especially: my parents Eva and Christer for your eternal curiosity, my brother Mårten (the Olanderway), and my invaluable (!) and inquiring brothers in arms: Pär Jonsson and Carl-Johan Petri. To Eleni Cronström I say, thank you for your extended patience, support and energy. Here we go!

Most importantly, the completion of this thesis would not have been possible without the support of my two intelligent and encouraging daughters Maya and Zoey and my inspiring and overwhelmingly caring husband Michael. The three of you are the best.

What joy! I have completed one journey and am ready to embark on the next.

Malin Olander Roese

Lund, February 2014

Abstract

This thesis explores and describes strategic change towards increased customer orientation and innovation in the Swedish forest and paper packaging industry, an industry which has been subject to calls for new strategic directions for more than two decades. The large-scale and cost-efficient strategy, which has been the industry's hallmark, is in need of a more customer based and innovative emphasis.

The research is inspired by different schools of thought in strategy and motivated by the limited longitudinal studies; on the link between customer orientation, innovation and strategy, and on this empirical setting. The link is of particular relevance given the emerging paradigms of dual and ambidextrous strategies in literature and practice, integrating strategies focused on cost and differentiation, efficiency and innovation – at the same time. This development further adds to the need for more insight into the gap between strategy development and implementation.

A qualitative and longitudinal case study of one actor in the Swedish forest and paper packaging industry is carried out. Crossing several theoretical boundaries, the research contributes to knowledge on what strategic change towards increased customer orientation and innovation entails: what the challenges are, how they can be managed, and how change can be measured.

In the case study, strategic change is found to be a time-consuming, incremental yet revolutionary process. Far from a linear journey, it is challenged by paradoxes on a strategic and organisational level formed by dual and seemingly opposing strategic intents. It is managed by expanding the perspective of the value chain and using traditional levers such as the organisational structure. But more interestingly, it is also managed by means of less orthodox ways for market learning, development and featuring of new offerings combined with faith in the direction aimed for.

This thesis argues that being able to manage a strategic change towards this end requires an integration of rational and pragmatic thinking and doing that combines levers and measures of cultural and cognitive change with more traditional ones. It contributes to a further understanding of this challenging endeavour and to future research on competitive and sustainable development of mature industries.

En svensk sammanfattning

Den viktigaste frågan för många företag handlar om att trygga långsiktig och framgångsrik utveckling. Men hur säkerställer man ett företags framtid när efterfrågan förändras och kostnaderna för produktionen bara ökar? Hur hanterar man teknikutvecklingen och ändrade maktförhållanden i värdekedjan? Svaren på dessa frågor är ofta nytänkande, innovation och en stark kundorientering. Detta är självklara begrepp i sammanhang som beskriver ett företags strategi, som hos exempelvis IKEA, Apple och Google. Den här avhandlingen handlar inte om dem. Den handlar om företag i den svenska skogsindustrin som både måste och vill bli mer som dem. Fast på sina egna villkor.

Under mer än två decennier har företag i den svenska skogsindustrin uppmanats att byta strategisk riktning. Det tillvägagångssätt som sedan andra världskriget bidragit till att placera svenska massa-, och pappersproducenter på världskartan håller inte längre måttet. Den storskaliga och produktionseffektiva strategi, som varit industrins signum, måste utvecklas mot en mer kundorienterad riktning där innovation och värdeskapande erbjudanden står i fokus. Denna avhandling handlar om de utmaningar som en sådan resa kan innebära, hur resan kan genomföras och ett litet annorlunda sätt att mäta förändringen.

Avhandlingen baseras på en kvalitativ och flerårig fallstudie av förpackningspappersföretaget Billerud¹ och bidrar till att öka förståelsen för strategisk förändring i mogna branscher som den svenska skogsindustrin. De empiriska resultaten bygger på djupintervjuer, möten och studier av intern och extern kommunikation, som sedan tolkats och omtolkats i relation till olika skolbildningar inom strategiforskningen och teorier inom marknadsföring (kundorientering) och innovation.

I strategi- och managementlitteraturen finns många svar på vad strategi är och hur en förändring kan genomföras. Närliggande begrepp som kundorientering och innovation har också skilda definitioner och angreppssätt. Att byta riktning sätter

¹ Den här avhandlingen omfattar en studie av Billerud mellan 2004 och 2010. I slutet av 2012 blev Billerud, BillerudKorsnäs genom ett samgående med Korsnäs.

strålkastaren på vad ett företags strategi omfattar och framförallt hur den förverkligas. Särskilt intressant för den här avhandlingen är relationen mellan ett företags existerande och önskade strategi, och kopplingen till just kundorientering och innovation. En koppling som kan tyckas självklar men som hittills har studerats i begränsad omfattning. Hur en förändring av dessa begrepp hänger ihop och hanteras i ett företag som Billerud vet vi inte heller mycket om.

När ett företag i skogsindustrin vill bryta mot ett historiskt tillvägagångssätt uppstår utmaningar. Att bestämma sig för att bli mer kundorienterad och innovativ är enkelt. Att omsätta det i vardagen är betydligt svårare. En utmaning som inte bara handlar om nya verktyg och processer utan om sökandet efter svar på frågor som ett företag kanske aldrig tidigare behövt ställa. Dessa frågor är angelägna i relation till de synsätt som är på frammarsch i litteraturen och i näringslivet, där till synes helt motstridiga strategier samverkar. Genom att föra samman dessa olika strategier på samma karta försöker jag i avhandlingen återge det landskap som den här förändringen omfattar. Ett landskap där det som har format aktörer i den svenska skogsindustrin (kostnadsfokus, produktionskompetens, kvalitet) läggs intill det önskade (kundfokus, innovation, entreprenörskap).

Resan mot en ny riktning, någonstans mittemellan de två ytterligheterna, visar sig kräva långt mer situationsanpassade angreppssätt för att skapa ny förståelse och genomförandekraft än vad traditionella tankeskolor inom strategi och strategisk ledning erbjuder. Utöver att använda den organisatoriska strukturen som möjliggörare (genom att dela upp ansvaret för det nya och det existerande) är ett utvidgat perspektiv bortom kunden centralt. Mest intressant är hur Billerud gick tillväga för att lära om marknadens behov och utveckla nya erbjudanden, kombinerat med en fast tro på den nya riktningen. Angreppssätt som fler än det studerade företaget kan dra nytta av och som normalt sett förknippas med den typen av kända företag som nämns i inledningen.

För att mäta ett företags utveckling och framsteg är siffrorna på sista raden ett självklart mått. Men det ekonomiska resultatet är inte alltid en bra indikator på att resan går åt rätt håll. Givet att strategisk förändring kräver en ny förståelse är språket ett intressant medel och mått på densamma. Inspirerad av en kvantitativ metod som används inom kognitiv psykologi har jag mätt förändringen av språkets innebörd över tid. En analys med intressanta och signifikanta resultat som uppmanar till fortsatt utveckling och studier av liknande karaktär.

För att genomföra en strategisk förändring mot ökad kundorientering och innovation krävs en blandning av rationella och pragmatiska antaganden och aktiviteter, en kombination av åtgärder för kulturell och kognitiv förändring och mer traditionella styrmedel. Denna avhandling ökar förståelsen för utmaningen och vill bidra till fortsatt forskning i frågan om vad mogna industriers framtida och hållbara utveckling innebär. En framtid där enkelhet och dialog kan bli centrala framgångsfaktorer.

Appended Papers

PAPER I

Adapting to Changes in the Supply Chain – Challenges to Redefining the Supply Chain for Increased Customer Orientation and Product Innovation within the Paper Packaging Industry

Malin Olander and Annika Olsson

Paper published after double blind peer review in the conference proceedings of the International Purchasing and Supply Education and Research Association (IPSERA) 2007.

Olander and Olsson designed and conducted the empirical inquiry. Olander was the principle author of the paper and presenter at the conference. Olsson provided reflections on the writing of the paper.

PAPER II

Challenging the Strategy Paradigm within the Paper Packaging Industry

Malin Olander Roese and Annika Olsson

Paper published in the International Journal of Business Science and Applied Management (IJBSAM), Volume 7, Issue 2, 2012.

Olander designed and conducted the empirical inquiry and was the principle author of the paper. Olsson provided reflections on the writing of the paper.

PAPER III

The Road to Paradoxical Strategy: Lessons from Strategic Change in the Paper Packaging Industry

Malin Olander Roese and Mats Magnusson

Submitted to LRP Long Range Planning, 2013.

Olander designed and conducted the empirical inquiry and was the principle author of the paper. Magnusson contributed with reflections on the writing of the paper and input on the analysis and conclusions.

PAPER IV

Strategic Change: A Journey Towards New Meaning? Semantic Analysis of Corporate Communication

Malin Olander Roese and Sverker Sikström

Submitted to the International Journal of Business Science and Applied Management (IJBSAM), 2014.

Olander and Sikström designed the study. Olander collected and prepared the empirical data, interpreted the results and was the principle author of the paper. Sikström performed the quantitative semantic analysis and provided reflections on the results.

PAPER V

Towards Improved Reporting of Case Study Research

Malin Olander Roese, Helena Lindh and Sandra Silgård Casell

Paper published after double blind peer review in the conference proceedings of The Nordic Logistics Research network (NOFOMA), 21st Annual Conference 2009, pp.615-633.

Olander Roese, Lindh and Silgård Casell contributed equally to the literature review and evaluation of articles. Olander Roese and Lindh were the principal authors of the paper and Silgård Casell presented at the conference.

Contents

Acknowledgements	1
Abstract	3
En svensk sammanfattning	5
Appended Papers	7
1. Introduction	13
1.1 Background	14
1.2 Research aim and questions	16
1.3 Empirical setting and scope of study	16
1.4 A few comments on nomenclature	17
1.5 Disposition of the thesis	18
2. Research philosophy and practice	19
2.1 The outset	19
2.2 A qualitative interpretative approach for studying strategic change	20
2.3 Case study research and design	22
2.3.1 Criticism and improvement for reporting case study research – Paper V summary	24
2.4 The research scope and process	24
2.4.1 Data collection	25
2.4.2 Analysis and the abductive process	27
2.5 The quality of qualitative findings	29
2.6 My role as researcher	30
2.7 Benefits and problems with pre-understanding	31
3. The empirical setting	33
3.1 The Swedish forest industry	33
3.2 Calls for new strategic directions	36
3.3 The case of Billerud	38

4.	Theoretical frame of reference	45
4.1	Strategy and change	46
4.2	Customer orientation and innovation	48
4.2.1	Market and customer orientation	48
4.2.2	Innovation	50
4.3	Linking customer orientation and innovation with strategy	52
4.4	What is strategy? Different definitions and schools of thought	54
4.4.1	Different approaches – different assumptions	55
4.5	Managing strategic change towards increased customer orientation and innovation	57
4.5.1	Dealing with issues of duality and paradox	57
4.5.2	Approaches to implementing strategic change	59
4.5.3	Managing market oriented and innovative capabilities	61
4.6	Measuring the outcome or process of strategic change	63
4.7	Previous research in the Swedish forest and paper packaging industry	64
4.8	Summary	66
5.	Summary of findings and appended papers	67
5.1	Introduction	67
5.2	Towards increased customer orientation and innovation	68
5.2.1	Paper I. Challenges to Redefining the Supply Chain for Increased Customer Orientation and Product Innovation	70
5.2.2	A replicating case in the PaperPackaging industry	72
5.3	Towards a dual strategy	73
5.3.1	Paper II. Challenging the Strategy Paradigm within the Paper Packaging Industry	75
5.4	Dealing with duality over time	79
5.4.1	Paper III. The Road to Paradoxical Strategy: Lessons from Strategic Change in the Paper Packaging Industry	80
5.5	Measures of strategic change	84
5.5.1	Paper IV. Strategic Change: A Journey Towards New Meaning?	87
5.6	Summarising a strategic change journey	89
6.	Extended discussion and conclusions	91
6.1	Introduction	91
6.2	Seeing the forest for all the trees: conceiving the link and the landscape	92

6.3	Managing strategic change through unorthodox mechanisms and capabilities	96
6.4	An incremental revolution	100
6.5	The difference between PowerPoint and reality	102
6.6	Conclusions	104
7.	Contributions and suggestions for future research	107
7.1	Contributions to academia and practice	107
7.2	Suggestions for future research	109
	References	112

Appended Papers:

Paper I. Adapting to Changes in the Supply Chain – Challenges to Redefining the Supply Chain for Increased Customer Orientation and Product Innovation within the Paper Packaging Industry

Paper II. Challenging the Strategy Paradigm within the Paper Packaging Industry

Paper III. The Road to Paradoxical Strategy: Lessons from Strategic Change in the Paper Packaging Industry

Paper IV. Strategic Change: A Journey Towards New Meaning? Semantic Analysis of Corporate Communication

Paper V. Towards Improved Reporting of Case Study Research

Appendices:

Appendix A. List of Interviewees

Appendix B. Interview guide

1. Introduction

“There is a real problem in the structure and society at large which is about to throw everything overboard. You researchers and writers are a contributing factor to this; removing the power from professionals and workers to studies and PowerPoints. This is serious, because in a business like this there is a risk of not getting an honest sense or respect for the real expertise out here”.

(Senior Manager, Billerud)

This thesis explores and describes strategic change towards increased customer orientation and innovation in the Swedish forest and paper packaging industry. Based on a case study of one company, the thesis identifies challenges of a new strategic direction, proposes a link between customer orientation, strategy and innovation, illustrates a landscape of dual strategic intents and suggests how the resulting paradoxes can be managed. Furthermore, the thesis taps into language as a means for, and measure of change.

For more than two decades, actors in the Swedish forest industry have been subject to calls for new strategic directions towards increased customer orientation and innovation. Thus far, evidence of a development towards this end is limited in theory and practice.

While the concepts of market and customer orientation and innovation are well elaborated in the literature, there are few examples of – or references to – companies upstream in the supply and value chain, such as pulp, paper and packaging producers. Given the challenges and opportunities facing businesses in this industry, a further inquiry into strategic change efforts in this context can be argued for.

From a theoretical perspective, the study presented in this thesis is further motivated based on the limited research available, not on the market and customer orientation and innovation concepts per se, but with regard to the link between them and strategy. This is particularly relevant given the calls for new and emerging paradigms of dual strategies in the literature, together with the continued search for increased understanding of strategy execution and implementation.

Applying a qualitative research approach, different schools of thought in strategy and related fields are integrated and iterated with the empirical findings. As a result, this thesis provides themes, conceptual frameworks, suggestions and tests one hypothesis contributing to further understanding of the challenges and enablers for managing

and measuring strategic change towards increased customer orientation and innovation over time.

1.1 Background

Businesses in the Swedish forest, paper and packaging industry are subject to calls for new strategic directions. Companies such as SCA, Holmen, Stora Enso and Billerud (BillerudKorsnäs) have been part of tremendous structural changes involving mergers, reduction of manufacturing units and increased process efficiency, which have multiplied the levels of output over recent decades. However, actors in one of Sweden's most important primary industries are accused of being poor at listening to the 'market' and equally poor at working with other actors in their supply and value chains (Berg, 2005; Hayhurst, 2002). Shifts in technology, changing market demands, periods of financial instability and increasing costs for production have spurred suggestions for increased market orientation and innovation, to ensure the industry's continued and sustainable development (Edström & Strömberg, 1993; Klint, 1997; Ottosson, 2008). The large-scale and cost-efficient strategy, which has been the industry's hallmark since World War II, is being challenged.

Changing strategy is not an easy endeavour. Developing and executing strategy is hard to begin with (Baden-Fuller & Volberda, 1997; Mintzberg & Quinn, 1992). Scholars argue that there are still more suggestions in the literature on how to comprehend the external scene and formulate strategies than on how to implement them in practice (Herrmann, 2005; Markides, 2001; Simons, 1995). Calls for increased market or customer orientation and innovation may create an even bigger challenge, given that these notions are often synonymous with firms in less mature industries (Day, 1999).

While there are many suggestions in the literature on what to do in terms of strategy and change, there is less in relation to how to go about it in a particular context (Markides, 2001). This may be particularly true with regard to companies upstream in the supply and value chains of mature and primary industries. A summary of the "10 Must reads on Strategy" in the management oriented Harvard Business Review (HBR, 2011) is but one example. In the collated articles, written by scholars and practitioners, companies like Ikea, Southwest Airlines, Microsoft, Apple, Walmart, Walt Disney, Procter & Gamble, and 3M are commonplace. Actors upstream in the supply/value chains in the forest, paper and packaging industry are not commonly referred to in research from a strategic and managerial point of view (Rundh, 2005). Research on strategic renewal and innovation with paper and pulp producers is still limited (Bjorkdahl & Borjesson, 2011). This raises the research question on how organisations in more mature industries, upstream in the supply/value chain, go about strategic change towards increased customer orientation and innovation?

The core process of a company over time, is to form new ‘dominating ideas’ in line with external developments, and to ensure that these ideas are implemented within the company (Normann, 2001). In as much, strategic management may be all about change (Cummings & Daellenbach, 2009). O’Reilly and Tushman (2004) suggest that one of the toughest managerial challenges is the mental balancing act required to attend to the products and processes of the past, while preparing the innovations that will define a company’s future. This may be increasingly difficult when the logic of business is changing from an industrial economy with standardisation and production at its heart towards an economy where ‘value’, ‘knowledge’ and ‘relationships’ are conditions for long-term success (Cummings & Daellenbach, 2009; Normann, 2001; Normann & Ramirez, 1998). Herrmann (2005) frames it interestingly: “Competitive advantage will increasingly be more difficult to define, for it will be based on speed, innovation, service and customization as well as volume, scale and low cost” (ibid., p. 122).

The development in the field of strategy (and practice) towards dual, ambidextrous and paradoxical strategies (see e.g. Kim & Mauborgne, 2005; Sarkees & Hulland, 2009; Smith, Binns, & Tushman, 2010; Tushman & O’Reilly, 1996) begs new questions on what strategy is and how to implement it in practice. In the literature, balancing the past with the future, changing logic or combining dual strategies tap into issues on the content and process of strategy both with regard to formulation and implementation. This raises questions on whether strategy is a position or a perspective (or both), a plan to be executed or a plan that emerges (or both), and foremost what levers and capabilities are to be used or built (Markides, 2004; Mintzberg & Quinn, 1992; Porter, 1996; Whittington, 1997).

Market orientation and innovation may be the most argued and important prerequisites for long term success, however found difficult in large mature firms (Bessant, Lamming, Noke, & Phillips, 2005; Day, 1999; Dougherty & Hardy, 1996). According to Normann (2001), the new strategy paradigms towards increased value is about cognition “...a mode of being, a mind-set” (Normann, 2001, p. 69). Strategies that require companies to orient their whole system towards achieving a leap in value for both buyers and themselves (Kim & Mauborgne, 2005). Research shows that a commitment to new product development and innovation in turn depends on a company’s strategy and strategic choices, and the degree to which strategy influences the nature and extent of a company’s market orientation. However obvious the relationship between new product activity and innovation, market orientation and strategy may appear, this link has received limited attention in the literature (Frambach, Prabhu, & Verhallen, 2003).

For an actor in the Swedish forest and paper packaging industry, moving from a predominant strategy of ‘cost’, to paraphrase Porter (1985), where the production resources and efficiency increases have been at the heart of the business, towards

increased market, customer orientation and innovation begs questions on the inherent and future strategy paradigm and how a transition is facilitated. Hence the research questions: What are the challenges related to strategic change towards customer orientation and innovation, and how can strategic change be enabled?

Financial results, market share and share value are undisputed measures of success for a company and its stakeholders, particularly if listed on the stock exchange. However, an improvement of these figures may take time to realise given the incremental nature of strategic change (Quinn, 1978; Teece, Pisano, & Shuen, 1997). The level of customer satisfaction, the number of new ideas and products, and measures of continuous improvements may be alternative and important indicators of progress (Tidd, Bessant, & Pavitt, 1997). Other research suggests that communication is an important prerequisite in strategy development and implementation in general (Mankins & Steele, 2005; Porter, 1996), and in strategic change and innovation in particular (Jacobs & Heracleous, 2005; Markides, 1997). Language being our most important means for communication, learning and understanding and altering mental models (Brown, Collins, & Newman, 1989; Györi, 2002; Jacobs & Heracleous, 2005). A customer oriented language is found to be particularly important in guiding market oriented behaviours (Homburg & Pflesser, 2000). This reasoning begs questions on how strategic change towards increased customer orientation and innovation can be measured.

1.2 Research aim and questions

This thesis explores and describes strategic change towards increased customer orientation and innovation with the aim to contribute to an increased understanding of the same in mature industries like the forest and paper packaging industry. Four central questions have guided the research: *How does an organisation upstream in the supply/value chain go about strategic change towards increased customer orientation and innovation?; What are the challenges related to strategic change towards customer orientation and innovation, and how can this strategic change be enabled? And finally How can strategic change towards increased customer orientation and innovation be measured?*

1.3 Empirical setting and scope of study

The focus of this thesis and the empirical inquiry is one representative of the Swedish forest and paper packaging industry named Billerud. The research presented takes its starting point in the company's intent in 2004 to move from a position of competing on price, volume and 'receiving orders', to taking a proactive lead in the development of future packaging and packaging solutions. A longitudinal study was carried out from 2004 to 2010 to study this transition. This kind of study is well argued for in

the literature on strategy and strategic change (Herrmann, 2005; Pettigrew, 1990). The scope of strategic change addressed in this thesis is captured in the research aim.

1.4 A few comments on nomenclature

Throughout this thesis there are a few concepts which are referred to by the use of different wordings. These merit further explanation:

Customer orientation and *market orientation* are used interchangeably in the thesis and in the appended papers. Unless otherwise stated, both are used to indicate a focus on customers, customers' customers and a customer driven development of the company's offering (i.e. products and services). Although these terms are defined in the literature, the definitions can also serve to confuse. For example, Frambach et al. (2003) refer to 'market orientation' meaning: competitor and/or customer orientation. Slater and Narver (1998) refer to 'customer orientation' and different degrees thereof being: customer-led or market oriented.

New product development and *innovation* are equally used interchangeably. While new product development simply refers to development of new (physical) products (which was the primary focus in the initial stages of the empirical inquiry presented in this thesis), the move towards the development of services and business broadened the reference to innovation. Innovation is defined as a commercially favourable change in the products and services offered by a company and/or change in the ways in which these are created and delivered (Deschamps, 2008; Drucker, 2002; Tidd et al., 1997; Utterback, 1996).

Supply chain and *value chain* are used to describe the position of the case company, Billerud, and illustrate the supply and value creation between and across actors, that is, firms that add value to what they receive upstream and/or to what they pass downstream (Normann & Ramirez, 1998).

Duality, *ambidextrous* and *paradoxical* are used with reference (in particular) to strategy meaning a combination of seemingly contradictory strategic intents, positions and abilities (Kim & Mauborgne, 2005; Sarkees & Hlland, 2009; Smith et al., 2010; Tushman & O'Reilly, 1996).

1.5 Disposition of the thesis

Chapter 1: Introduction

Chapter 2: Research philosophy and practice

Chapter 3: The empirical setting

Chapter 4: Theoretical frame of reference

Chapter 5: Summary of findings and appended papers

Chapter 6: Extended discussion and conclusions

Chapter 7: Contributions and suggestions for future research

2. Research philosophy and practice

“A dissertation can show one of two things: stringency or novelty. You my friend will struggle with both. As a born practitioner you lack the patience, time and meticulous approach needed for any degree of stringency and as for novelty – there is, I’m afraid, nothing that has not been said or done before”.

(A good friend and merited doctor of philosophy)

These words welcoming me to the academic world may not have been particularly encouraging. They do however capture three important aspects of my research expedition: Firstly, that a person’s background and pre-understanding will have an impact on their research. Secondly, the help of a desire to search for a deeper understanding (in my case) of strategy and strategic change and to find answers that are relevant for practice and academia. Thirdly, that this desire to find those answers requires stringency in carrying out the research. To paraphrase Gummesson (2000), a true scientific approach is personal, an approach to life, a search for truth and meaning.

2.1 The outset

I returned to academia after more than ten years of working as an employee and employer in the public and private sectors. I brought with me a pre-understanding influenced by previous studies and experiences in practice. My academic pre-understanding of strategy was that of a linear process, starting with analysis, followed by a set of decisions on priorities and actions, put together in a document, communicated to the organisation and subsequently implemented. My experiences from working in government, consultancy and retail were similar, except for the implementation part – ‘how to go about making it happen’, particularly in times of change: incorporating new tasks, markets or merging organisations, or just embracing new perspectives. While not having any preconceived answers to the change and/or implementation problem, my experiences and familiarity with the world of business and organisations influenced my research process. At the outset I did not doubt my pre-understanding from academia, supported by a continuous consumption of management literature. However, I was no longer convinced that there was *one* answer or a simple recipe to the problems encountered in practice (albeit hoping for one).

Two other matters formed my research from the outset. The first was my research context, Packaging Logistics at Lund University’s Faculty of Engineering, LTH. With

a degree in business administration and economics, and a research interest in business strategy, this may seem an unlikely place to end up. However, going back to academia after many years in practice, Packaging Logistics offered interdisciplinary research, in an equally interdisciplinary team, which enabled a holistic and pragmatic approach suitable for my research quest. The vision and practice of Packaging Logistics' are to contribute to a sustainable society, and to integrate research in product/package development, innovation and supply chain management from economic, technical and environmental perspectives. The second matter forming my research was that before I had formally reentered the academic world, I was invited to a meeting at Lund University with representatives from a company in the forest and paper packaging industry. They raised questions about the future strategic direction for their company that made the search for answers potentially more interesting in the light of my research interest, in the realm of Packaging Logistics. The company was Billerud, which (through a stepwise process) came to be the focal attention of my research.

Given this outset I have aimed to advance my own and other academics knowledge. I have with equal intent aspired to draw from my empirical research and return the insights gained back to the world of organisations and businesses – to all the people who bestowed on me their curiosity to search for more knowledge in the first place. Knowledge, in relation to the issues addressed in this thesis, is foremost a product of my interpretive view on ontology and epistemology in that interpretation is at the core of empirical inquiry, acknowledging also the importance of context and a holistic perspective (Alvesson & Sköldbberg, 1994; Burrell & Morgan, 1979; Gummesson, 2003; Patton, 2002; Pettigrew, 1990). Having said that, it is important to add that I do not assume that social phenomena are purely subjective but also exist in the objective world where, as stated by Miles and Huberman (1994): "...social phenomena exist not only in the mind but also in the objective world – and that some lawful, reasonably stable relationships are to be found among them" (ibid., p. 4).

2.2 A qualitative interpretative approach for studying strategic change

With an interpretive view on ontology and epistemology, support is found in a qualitative research approach (Gummesson, 2000; Marshall & Rossman, 2006; Patton, 2002). The qualitative research paradigm is pragmatic, interpretive and grounded in the lived experiences and perspective of the individual (Bryman, 1989; Marshall & Rossman, 2006). Studying strategic change with a qualitative research approach is based on the assumption that reality is socially constructed, focusing on understanding subjective knowledge rather than objective or explanatory knowledge (Gummesson, 2000). The focus has been on the individuals' interpretations of the

context they are in as suggested by Bryman (1989). However, as already stated, this has not meant discarding what can be categorised as more objective information or analysis. This is reflected through my choice of research design, data collection and analysis.

Moving from research philosophy to practice entails choices on how to go about collecting data, perform the analysis and report findings and conclusions. The literature in science philosophy and methodology advocates that the map, destination and preferred road should be clear before you get into your vehicle of choice (Marshall & Rossman, 2006; Yin, 2003). Such suggestions have served as inspiration, beginning with defining the research question, which is argued to be the most vital step in a research process, with no exception.

Eisenhardt and Graebner (2007) argue that “Sound empirical research begins with strong grounding in related literature, identifies a research gap, and proposes research questions that address the gap” (p. 26). Taking the outset in literature indicates a deductive approach as opposed to an inductive one which starts in the empirical setting and real-life observations, preferably with no grounding in literature (Alvesson & Sköldbberg, 1994; Gummesson, 2000; Hansson, 1992). While both approaches have their proponents and opponents, Gummesson (2000) argues that it is only the starting point of research that separates the two; after that, research becomes an iteration between theory and the empirical world.

In this thesis, the research takes its outset in the empirical setting rather than a predefined gap in the existing literature. However, it is also based on a pre-understanding formed by practical experience and theoretical input, which is why it cannot be argued to be purely inductive. With the goal of contributing to both academia and practice, the research aim and questions were formed by an iterative process where issues raised in practice lead to an initial anchoring in existing theory. This was followed by further development of the research questions, and a continued process where findings from both theory and practice were reinterpreted in the light of the other (Huberman & Miles, 1998). This is similar to an abductive approach: an iterative process between theory and empirical data and research activities, with elements of both induction and deduction. The aim of the abductive approach is to contribute to further ‘understanding’ of the phenomena studied, however, with a stronger reliance on, and iteration with, existing theory than in induction, while setting it apart from ‘testing’ existing theory as in deduction (Alvesson & Sköldbberg, 1994; Dubois & Gadde, 2002; Gummesson, 2000; Kirkeby, 1994).

The research aim and questions have guided my choice of research strategy supported by authors in the field of qualitative research (Gummesson, 2000; Patton, 2002; Yin, 2003). Yin (2003) argues that ‘how’ and ‘why’ questions are particularly suitable for case study research when the researcher has little control over events and the focus is on contemporary phenomena within some real-life context. However, whereas Yin

(2003) advocates these two questions and an explanatory purpose as most suitable for case studies, 'what' questions may be equally relevant linked to an exploratory purpose with the aim to develop hypotheses and propositions for further inquiry.

2.3 Case study research and design

Case studies are commonly used when studying organisations and are appropriate when the research approach is qualitative (Bryman, 1989; Gummesson, 2000; Marshall & Rossman, 2006). A case study strategy is, according to Gummesson (2000), particularly suitable for achieving more in-depth understanding of the mechanisms of change. Hence, choosing the case study as the framework and research design for my studies arguably fits well with the research aim and questions.

Case studies may vary in character and design, from attempts to derive general conclusions from a limited number of cases, or specific conclusions from a single case. Both types can produce results of general interest (Gummesson, 2000). Yin (2003) suggests that single case studies are suitable if the case is critical, extreme or unique, representative or typical, revelatory or longitudinal. Multiple cases may be argued for if the objective is to replicate results, which is why this choice should be based on prediction of similar results (literal replication) or contrasting results but for predictable reasons (theoretical replication). In selecting the final case or cases, theoretical sampling (as opposed to random or stratified) is most relevant. This means that case/s should be selected in relation to how suitable they are for illuminating and extending relationships and logic among theoretical constructs (Eisenhardt & Graebner, 2007).

A particular benefit and strength of case studies is that they allow searching for a variety of evidence through multiple methods for data collection and are context sensitive. Hence, the final selection of empirical setting should be based on a choice of case/s where data about the complexity of the issues can be found and data on multiple versions of reality can be collected. This does not only allow for typically qualitative methods for data collection and analysis but also quantitative (Marshall & Rossman, 2006). Furthermore, an important prerequisite for a similar study, particularly with regard to questions of strategy and change, is access: "When dealing with processes of decision making, implementation and change it is essential to establish satisfactory access" (Gummesson, 2000, p.53).

Given my research interest, I aimed for a single case which would allow for a comprehensive and multifaceted study of issues of strategy implementation and strategic change, preferably over time. The initial contact with Billerud indicated an interesting avenue, enhanced by identified calls for new strategic directions in the Swedish forest and paper packaging industry and finding little evidence of studies in the industry from a managerial or strategic point of view (see e.g. Rundh, 2005).

Hence, Billerud, representing a case of strategic change in this industry, where similar studies were not commonly found and with a promise of longitudinal access finalised the choice. Aiming for a longitudinal study, the outset was exploratory which led to further refining of the research questions in relation to literature and the empirical questions raised. To paraphrase Yin (2003), the objective was to study the same case at different points in time to identify changes.

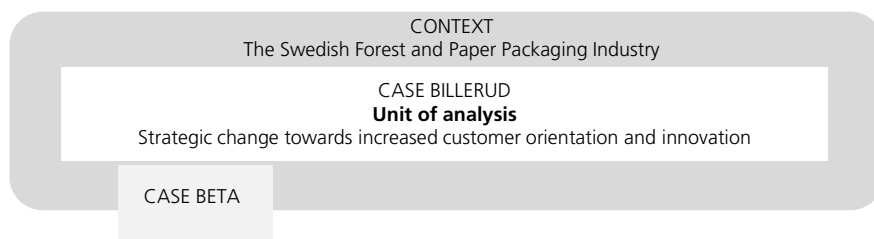
Having chosen a case study strategy also entails clarifying the unit of analysis, “the case”, which may be one or several of many things such as individuals, groups, organisations (Bryman, 1989; Patton, 2002); decisions and relations (Yin, 2003); or “the set of managerial actions and decisions involved in making a major market-creating business offering” (Kim & Mauborgne, 2005, p.10). Furthermore, one can distinguish between holistic and embedded case study design, that is, a case study focusing on a more holistic, global picture versus a one with several units or subunits of analysis (Yin, 2003).

My unit of analysis is holistic. It is the case of strategic change. Strategic change is per se a moving target, a journey. It encompasses the intended change, the decisions and actions taken to implement the change, the reactions and experiences of the change on the management level and in selected parts of the organisation. The strategic change examined here is based on individuals’ views and experiences, documentation and the issues related to the strategic change within one company. The unit of analysis is defined as strategic change towards increased customer orientation and innovation (see Figure 2.1).

However, as pointed out by Gummesson (2003), studying business organisations means studying change that is only partially predictable. A year and a half into the study the case company had a change in management which put a halt to the empirical inquiry. As a consequence, the decision was taken to carry out another case study at a different company. It was also decided to continue following Billerud through public communications and media reports. The second case study was carried out at BETA, a European based global leader in paper based packaging. The study was more limited in scope and aimed at replicating findings from the initial empirical inquiry with Billerud. BETA, a European based global leader in paper based packaging, was selected based on them having managed a similar strategic change effort earlier.

Meanwhile efforts were made to proceed with the study in Billerud which was finally granted. Hence, even though one could claim that I have pursued a multiple case study, the perspective has always been that of the main study of Billerud. This is why I chose to call the design a single case study with one delimited replicating case.

Figure 2.1. Case study design and unit of analysis – a single case study with one replicating case.



2.3.1 Criticism and improvement for reporting case study research – Paper V summary

In spite of the argued relevance of qualitative case study research and the appropriateness for the research in this thesis, the approach has been and still is questioned. The criticism involves lack of rigor in following, or describing, a systematic procedure; vague and interpretive evidence; and conclusions that cannot be generalised (Voss, Tsikriktsis, & Frohlich, 2002; Yin, 2003). To remedy the problem, the reporting of case study research is argued to be important, explicating the criteria established for sound case study conduct (Eisenhardt & Graebner, 2007). Given the criticism, and with the view to contribute to improve how case study research is conducted and reported, case study based research articles were assessed (Paper V).

In Paper V, a framework for assessing the reporting of case study based research is proposed with four main criteria – research question/purpose, case setting, data collection and analysis – and 16 sub-criteria. As a result, four sub-criteria for general improvement in the reporting of case studies were identified within three of the main criteria: the role of researcher (case setting); the time period of the study and the use and motivation of triangulation (data collection); the description of procedure and steps for analysis (analysis). However, as noted in Paper V, academic conference and journal papers do not always allow for elaborate descriptions of the research process, which is why I am more detailed here.

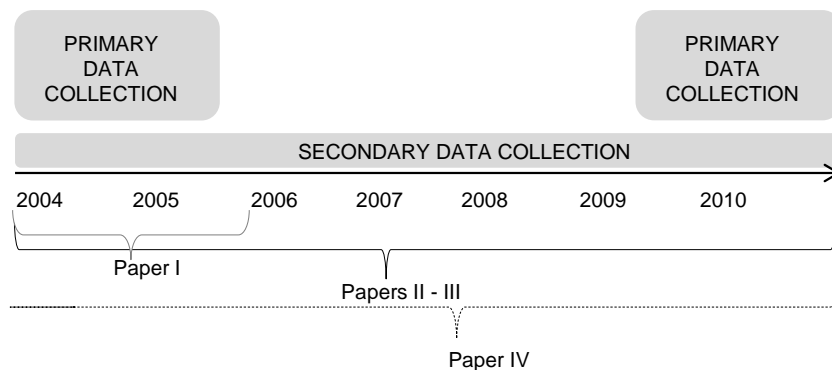
2.4 The research scope and process

This thesis includes the present document and a preceding licentiate thesis (Olander-Roese, 2008). Both consist of compilations of articles and a summarising introduction (the Kappa). At the core of the research is a longitudinal case study of strategic change at Billerud between 2004 and 2010. The licentiate thesis covers empirical findings up to 2006. In this thesis, the theoretical frame of reference and empirical findings are based on the initial and continued case study until the end of

2010. This thesis presents the main conclusions from the licentiate thesis in the form of an appended, published paper (Paper I).

The empirical study was initiated in 2004 and covers Billerud’s journey up to the end of 2010 with the exception of Paper IV, which covers the years 2001 to 2010 based on secondary data (i.e. annual reports and press releases). The scope of research and appended papers I – IV are illustrated in Figure 2.2.

Figure 2.2. The empirical inquiry 2004 to 2010 and scope of appended Papers I – IV.



2.4.1 Data collection

In order to study processes like strategic change, semi-structured interviews, observations and even informal meetings are argued to provide the best opportunities for collecting primary data. Secondary data such as documentation, printed material and archival records are equally relevant sources of evidence (Bryman, 1989; Gummesson, 2000; Marshall & Rossman, 2006; Patton, 2002). In line with these suggestions, I have relied on in-depth semi-structured interviews, participatory meetings and observations, as well as secondary data collection of documents including internal and external presentations, employee magazines, annual reports, press releases and media articles; hence using multiple methods for data collection (Eisenhardt, 1989; Patton, 2002; Yin, 2003). Most of the data collection refers to the main Billerud case. The methods used in the replicating BETA case were limited to in-depth semi-structured interviews.

In total I have conducted 26 in-depth interviews of between two to three hours each, of which 23 represent the main case. Concentrating on Billerud, I participated in nine meetings taking place at different locations, also enabling informal observations of the headquarters, two of the paper mills and one European sales office. In selecting the interviewees, the level of experience and involvement in the issues at hand were important criteria in determining who should be included in the empirical inquiry. This is in line with the recommendations of Bryman (1989). In addressing

management issues, individuals in the management teams were included in the scope together with individuals in prioritised business units or segments who were responsible for implementation. The interview questions covered background, intentions, descriptions, experiences, and views on: objectives and financial targets, strategy and implementation efforts, customers/markets, products/services, innovation and development, implementation and control systems. In the second part of the study at Billerud, the interviews were supplemented with four copied illustrations and text of the company's business idea, strategy, organisational structure and value chain, from 2004/2005 and 2009/2010. These were used to contrast the differences and similarities between the years and capture the interviewees' experiences and reflections on the changes. All interviews were recorded and transcribed verbatim. The author also took field notes during the meetings to document them. The data collection is summarised in Table 2.1. A list of interviewees and interview questions are found in Appendices A and B.

Table 2.1. Data collection 2004 to 2010.

2004	2005	2006	2007	2008	2009	2010	2011
<i>BILLERUD</i> 14 inter-views with representatives of the board, management and segment team. Four (4) meetings with management team.	Two (2) meet-ings with the segment team.			One (1) meeting with manage-ment team and board.	One (1) meeting with member manage-ment team.	Nine (9) interviews with represent-atives of management team and members of strategic projects.	One (1) meeting with manage-ment team.
Secondary data: annual reports, press releases, internal magazines	Second-ary data	Second-ary data	Second-ary data	Second-ary data	Second-ary data	Secondary data	
<i>OTHER</i>		Three (3) inter-views at BETA.					

2.4.2 Analysis and the abductive process

Different methods for analysis are argued for in case study research following the selected research approach and philosophy (Eisenhardt, 1989; Patton, 2002; Yin, 2003). In analysing the empirical findings, I have used generic methods for qualitative analysis with the exception of the study presented in Paper IV where a quantitative analysis (latent semantic analysis) was applied to secondary data (thoroughly described in Paper IV). The qualitative research approach and methods are accounted for in the appended papers and described and summarised here, illustrating the abductive process.

Organising and analysing the vast collection of words from the longitudinal and qualitative case study was made up of several steps including storytelling (chronology and narratives interspersed with quotations from key interviewees) and analytical frameworks to illuminate key issues through pattern and content analysis as suggested by Patton (2002) and Eisenhardt and Grabner (2007). In brief this involves "...reducing the volume of raw information, sifting trivia from significance, identifying significant patterns, and constructing a framework for communicating the essence of what the data reveal" (Patton, 2002, p.432). Seeing that there is no one way of analysing qualitative data (See e.g. Huberman & Miles, 1998; Marshall & Rossman, 2006; Patton, 2002), I have relied on the following four generic steps after data collection:

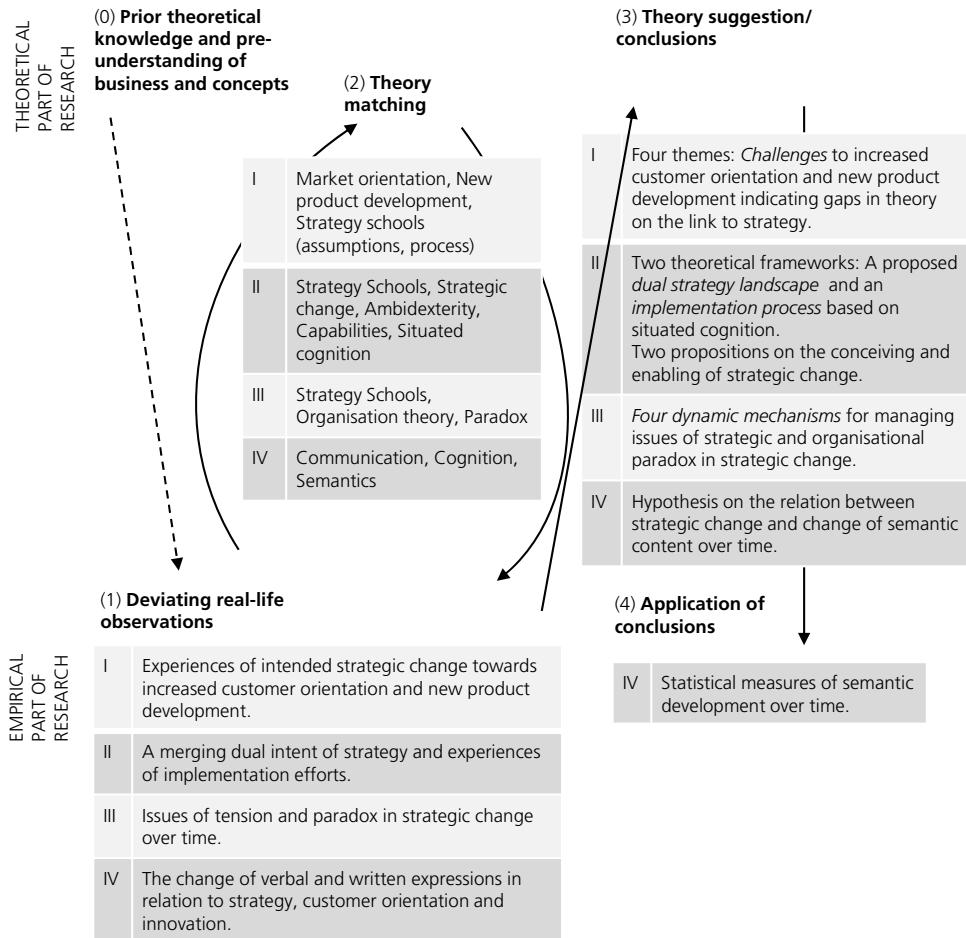
Firstly, recorded interviews were transcribed (verbatim) and read. Answers were structured in relation to the interview questions/categories of questions and/or merging areas (in in-depth, semi-structured interviews the answers do not necessarily follow the structure of the questionnaire and may include unforeseen responses or issues). The interviewees' answers were kept separate. The questionnaire itself was built on what Patton (2002) refers to as sensitised concepts (as opposed to indigenous concepts). These are categories/concepts that the researcher brings to the data (such as strategy, customer orientation, innovation). Secondly, patterns in answers were identified, colour coded and organised according to how the concepts were manifest and/or given meaning in the particular setting or by interviewees (i.e. statements about the strategic change, historical events and future outlook, personal responsibilities and experiences in general, and with regard to product development and customer orientation in particular). This was complemented with corresponding statements from secondary data (annual reports, press release and internal magazines). Thirdly, the data was interpreted in relation to the literature, discussing and/or clarifying preliminary findings with interviewees and colleagues. Fourthly, the main findings were selected and presented in the form of themes, frameworks, suggestions and propositions.

The empirical inquiry was mainly inductive and explorative at the outset. The themes emerging from the first study (Paper I) were not prefigured whilst becoming a central

part in guiding the continued theory matching, structuring and analysing of later collections of empirical data; hence moving from an inductive towards a more deductive analysis as in abduction (Alvesson & Sköldbberg, 1994; Dubois & Gadde, 2002; Gummesson, 2000; Patton, 2002). More than one field in theory has served as inspiration, covering literature in marketing, product development and innovation, strategy, organisation theory and management as well as cognition in search of a deeper understanding in relation to the empirical inquiry and findings. Hence, the abductive process iterates between the empirical world and theory. It goes back and forth from one type of research activity to another, confronting theory with the empirical observations with the aim to increase understanding of both theory and phenomena in real-life, and to develop theory by refining or adding to existing theories rather than inventing new or confirming to existing ones (Dubois & Gadde, 2002; Kovács & Spens, 2005). Corley and Gioia (2011) summarize the scholarly debate and research on what constitutes a contribution to theory in organisation and management studies along the two dimensions being originality (classified as either incremental or revelatory) and utility (classified as scientifically or practically useful). In this study, theoretical contribution is considered both in terms of theoretical 'originality' (i.e. incremental or revelatory) and 'utility' (i.e. practically useful and/or scientifically useful) as suggested by Corley and Gioia (2011).

In Figure 2.3 the abductive research approach is illustrated in relation to the resulting Papers I – IV. The research process started and continued with empirical observations (1) rather than a given theoretical framework, however acknowledging pre-understanding (0). This was followed by an iterative process of theory matching (2), analysis, selecting and reporting conclusions (3) in four steps representing Papers I to IV. The abductive approach may end with the application or 'testing' of conclusions in an empirical setting (4), however it is not necessary as this moves the abductive process towards deduction as in the testing of the hypotheses suggested in Paper IV. Given the longitudinal character of the study conducted here, the abductive process has been ongoing, incorporating several layers of empirical observations and processes of theory matching and analysis resulting in different yet complementing conclusions.

Figure 2.3. The abductive research process illustrated through Papers I – IV. Model derived and developed from Kovács and Spens (2005).



2.5 The quality of qualitative findings

The scientific character of qualitative findings is foremost an interpretation of words, by one subject (me the researcher) of other subject/s (the researched individuals, documents, etc.). Thus, the quality of the findings cannot be measured using methods found in quantitative research that show statistical significance. Evaluating qualitative research requires other measures. Patton (2002) argues that “In lieu of statistical significance, qualitative findings are judged by their substantive significance” (ibid., p. 467). This refers to measures such as ‘coherency’ or ‘soundness’ of the findings through, for example, triangulation, consistency with existing

knowledge (confirmatory significance) and the usefulness and relevance of findings in relation to the intended purpose. Others propose ‘credibility’, ‘transferability’, ‘dependability’ and ‘confirmability’ in place of traditional measures such as ‘validity’ and ‘reliability’ (Lincoln & Guba, 1985). Arbnor and Bjerke (1994) suggest ‘credibility’ and ‘truthfulness’. Explicating the whole research process (Marshall & Rossman, 2006) and the actual reporting of qualitative case research (Eisenhardt & Graebner, 2007) are argued to be equally important. Yin (2003) refers to construct validity, internal validity, external validity and reliability.

To ensure the quality of my findings I have used multiple sources of data and methods for analysis (qualitative and quantitative) as a means of triangulation to allow for increasing construct validity (Dong, 2005; Dul & Hak, 2008) and confirmability (Lincoln & Guba, 1985). Continuous feedback and dialogue to and with interviewees have been of particular importance to reflect on the findings and further ensure their truthfulness (Arbnor & Bjerke, 1994; Bryman, 1989). I have aimed to achieve internal validity (Yin, 2003) through pattern matching and storytelling in order to explicate the research process and findings. I have relied on and interpreted the findings in relation to the existing literature and used replication logic through one delimited case study to ensure external validity (Yin, 2003) and reasonable, confirmable and confirmatory significance (Patton, 2002). I have also aimed to ensure transferability (Lincoln & Guba, 1985) and reliability (Yin, 2003) by keeping field notes, by organised data collection and by analysing findings with colleagues.

Furthermore, reporting in itself is an important measure, which has been accomplished by communicating the results in published papers along the way (Eisenhardt, 1989; Yin, 2003). In the words of Patton: “Where all three – analyst, those studied, and reviewers – agree, one has consensual validation of the substantive significance of the findings” (Patton, 2002, p.467).

2.6 My role as researcher

In a case study it is important to include information and reflections about the researcher and on the role of the researcher (Marshall & Rossman, 2006; Stuart, McCutcheon, Handfield, McLachlin, & Samson, 2002). Gummesson (2000), an advocate for interpretative case study research, suggests seven different roles of a researcher being more or less embedded, ranging from analyst to management-for-hire. While the initial ambition was to conduct action research by adopting an interactive role with the individuals taking part in the study, my role has foremost been that of an analyst, a traditional research role. Choosing a more traditional role was based on the practical challenges of conducting action research where active participation in the case company’s problem solving is commonplace (Gummesson, 2000). The analyst role is characterised by intellectual work, in this case spanning over several years with a number of planned visits to the company combined with

considerable desk work summarised and published through written reports, such as academic papers. My role has in practice been to identify relevant interviewees, conduct interviews, participate in meetings, summarise findings, present and discuss these in academia and with the case company. Even though my research role has foremost been what Gummesson (2000) refers to as an analyst, his definition of a ‘catalyst’ is also close at hand, given that the interviews and reflection sessions with the representatives of the case company have spurred discussion (among the interviewees) and called for suggestions on interpretations.

The initial part of the case study (2004 to 2005) was conducted by two researchers (Olsson & Olander-Roese, 2005). The succeeding part was conducted by me alone. The analysis and reporting of the appended papers have been carried out in collaboration with the initial research partner (Papers I and II) and with other colleagues at the Division of Packaging Logistics (Paper V), The Royal Institute of Technology, KTH (Paper III) and the Department of Psychology at Lund University (Paper IV).

2.7 Benefits and problems with pre-understanding

As described in section 2.1, I am and have been influenced by my pre-understanding. This together with the understanding I gained throughout the research process have influenced my academic inquiry and interpretation of findings. I have striven to balance and challenge my pre-understanding to ensure a valid end result in line with the parameters in place for qualitative research, and to enable others to interpret the findings.

On the one hand, my pre-understanding has been an advantage in approaching the empirical setting with which I am familiar (even if not the particular settings of my research). It has been helpful in formulating questions, conducting interviews and managing the findings. It has also been helpful in interpreting the findings, being familiar with the processes, subjects and vocabulary found in organisations, as argued for by Gummesson (2000).

On the other hand, my pre-understanding may have narrowed my view and research approach. It has posed a challenge in terms of reaching conclusions: to move beyond a rejection, or acceptance, of established paradigms and the traditional parameters of successful strategies and strategy making. Given my pre-understanding of strategy in theory and practice I have aimed for a broad frame of reference in theory, embracing multiple perspectives in interpreting the findings. I have challenged my own assumptions on for example the communicative power of management in implementing strategy (see Paper I), the linear approach in strategy and faith in “the one model”. Under way, I have also challenged my research approach. I agree with the benefits of qualitative inquiry and analysis; that formal generalisations tend to be

overvalued and the force of example is often underestimated as supported by Flyvbjerg (2006). However, in search for answers to the research question on how strategic change can be measured I concluded the case study with a quantitative analysis (Paper IV). The Latent semantic analysis applied provided valuable confirmation and perspective of the qualitative results.

Returning to the introductory quotation of this chapter: Have I managed to be stringent and/or come up with something novel? In this chapter I have described my research process to show my efforts to be stringent. In the appended papers and summary of findings and discussions, I believe I have contributed with a degree of novelty both in relation to theory and to practice as further described in chapter seven. However, I will leave it to you, the reader (academic or practitioner) to be the judge.

3. The empirical setting

“There exist limitless opportunities in every industry. Where there is an open mind, there will always be a frontier”.

(Charles F. Kettering, 1876-1958, American engineer, inventor of the electric starter)

The future of the Swedish forest industry – one of Sweden’s most important primary industries in terms of its contribution to the country’s GDP, trade balance and employment – is of national concern. The changing landscape of the forest industry, influenced by shifts in technology, new growth markets, periods of great financial instability and increasing costs for production has spurred calls for new strategic directions. Increased market orientation, customer orientation and innovation are believed to be important prerequisites for the industry’s continued and sustainable development. It is in this context that the forest industry, and particularly its largest sector, pulp and paper, becomes an attractive domain for research.

The empirical setting for this thesis is primarily one of the Swedish forest industry’s representatives: Billerud², a manufacturer of strong primary fibre-based paper packaging material. In the beginning of 2004, Billerud explicitly communicated its intent to increase market orientation and new product development (Billerud, 2004). This intent motivated the study, coupled with the national importance of the industry and the limited longitudinal research of strategy and change in a similar setting. Before introducing Billerud, the Swedish forest industry and calls for new strategic directions are described.

3.1 The Swedish forest industry

The Swedish forest industry is a cornerstone in the Swedish economy, providing a significant contribution to the trade balance. The industry’s legacy and history date as far back as the year 1288 with the founding of Stora Kopparberg that later became STORA (today StoraEnso). Starting out with copper mining, the focus moved to mining of iron and forestry in the early 19th century. In the wake of the 20th century,

² This thesis covers Billerud between 2004 to 2010. At the end of 2012, Billerud became BillerudKorsnäs through the merger and acquisition of Korsnäs.

investments in manufacturing of cellulose and paper were made and boosted in the years following the Second World War. Three main actors dominated the scene with Stora Kopparberg emanating from mining, MoDo and SCA stemming from the sawmill industry. From 1950 on, these actors grew through continuous structural changes, internationalisation and further refining of the forest products towards high quality paper packaging materials and personal hygiene products. Their strategies were similar: to focus on large-scale and cost-effective production of paper qualities, particularly those that other countries in Europe had less capability to produce, such as newsprint paper and packaging paper. The firms' paths have crossed many times through mergers and acquisition of mills and production facilities in Sweden and internationally (Andersson, 1993).

In the last decade, the Swedish forest industry made up 10-12% of the nation's GDP, export, and employment. On the global scene, Sweden is an important forest industry power and among the top exporters in the world alongside Canada, the USA, Finland, Germany and Russia. The forest industry cluster, including suppliers and partners in machine and chemical industry, transport, IT, construction as well as universities and educational institutions is regarded as particularly strong in Sweden not least for employment (The Swedish Forest Industries, 2007b; The Swedish Forest Industries, 2011b).

The forest industry as a whole today includes companies in the pulp and paper industry and wood mechanical industry. Wood products, paper, packaging materials and hygiene paper are traditional products as well as production and consumption of biofuel. The single largest sector is the pulp and paper industry, which together with the converting and packaging sectors also referred to as the *paper packaging industry* (Jönson, 2001), make up more than half of the industry. Together with Finland, Sweden is regarded a world leader in the pulp and paper industry in terms of technology. Sweden's export of pulp and paper is the third largest in Europe after Germany and Finland (The Swedish Forest Industries, 2007b; The Swedish Forest Industries, 2011b).

The pulp and paper industry with manufacturers of newsprint, printing and packaging paper, board and tissue, is in itself the third largest in Europe. More than 80% of the pulp and paper production is exported. Industry characteristics include its high-tech, capital intensive processes and products with high knowledge content. While the industry prioritises research and development in continued production and process efficiency, the development of new products with high value added have become increasingly important in meeting global changes of technology, competition from emerging markets, and changing consumer demands (The Swedish Forest Industries, 2007a; The Swedish Forest Industries, 2012a; The Swedish Forest Industries, 2012b).

Like many other primary industries the pulp and paper industry has continued to undergo structural development with a tremendous increase in capacity while at the same time a reduced number of production facilities for paper and pulp as shown in Table 3.1. Structural development over the last three decades has nearly halved the number of production facilities and doubled the capacity and production of paper. Nordic forest industry companies have been heavily involved in restructuring of the industry and companies have carried out long-term cost reduction and efficiency programmes in order to reduce costs and improve competitiveness (The Swedish Forest Industries, 2007b; The Swedish Forest Industries, 2011b).

Table 3.1. The pulp and paper industry 1980-2011 (The Swedish Forest Industries, 2012c).

PAPER (PULP)	1980	1990	2000	2010	2011
Number of mills	62 (72)	51 (48)	48 (45)	40 (41)	39 (41)
Total capacity, million tonnes	7.2 (10.5)	9.5 (10.9)	11.1 (11.7)	12.1 (13.1)	12.3 (13.3)
Capacity per mill, 1,000 tonnes	115 (145)	185 (225)	232 (253)	295 (320)	315 (324)
Production, million tonnes	6.2 (8.7)	8.4 (9.9)	10.8 (11.5)	11.4 (11.9)	11.3 (11.9)
Exports, million tonnes	4.5 (3.0)	6.7 (2.7)	8.9 (3.1)	10.1 (3.2)	10.0 (3.1)
Export value, SEK billion	11.4 (6.1)	32.7 (11.6)	57.0 (16.6)	70.2 (17.1)	72.0 (15.4)
Main markets, 1,000 tonnes					
<i>Germany (Germany)</i>	800 (600)	1,300 (900)	1,785 (946)	2,025 (899)	2,028 (803)
<i>Great Britain (Italy)</i>	750 (300)	1,400 (300)	1,530 (312)	1,322 (308)	1,224 (268)
<i>Italy (France)</i>	234 (400)	454 (300)	564 (350)	654 (235)	660 (238)
<i>France (China)</i>	500 (24)	650 (11)	758 (40)	543 (197)	525 (262)

The demand for paper and paperboard keeps growing in Europe albeit slowly with an increasing demand for pulp from markets like China. The financial crisis of 2008-2009 took its toll on continued growth, particularly on the historically important European markets. On the global arena the challenges are increasing with competition from countries with faster growing raw material (forests) and lower costs for production, whereas costs for production (energy, transport, etc.) in Sweden are increasing. Continued strategic research is a national concern, not only for improving the efficiency of production processes and forest growth but also with regard to new materials and new products that can create added value for the industry (The Swedish Forest Industries, 2007a; The Swedish Forest Industries, 2011a).

3.2 Calls for new strategic directions

The development in the Swedish forest industry during the 1980s and 1990s was characterised by national mergers alongside substantial investments in production capacity outside the country. International competition both in the supply of the raw material and changing market demands raised questions on the future of the Swedish forest industry. Major structural changes of the industry and a supportive political environment were called for from different actors.

At the end of 1990, The Royal Swedish Academy of Engineering Sciences, IVA launched a project called “Sweden’s Role in a Globalised Forest Industry”. In one of the subprojects a strategic dialogue was held with representatives from industry, academia, the government and relevant authorities. It was concluded that the industry is headed towards a major structural change, a transition from a production based focus and standardised products towards a customer based emphasis with an expected increase in differentiated offers. The best the government could do was to take further initiatives in the areas of education, research and development to ensure the strong home base needed for a future development of the forest industry in Sweden (Edström & Strömberg, 1993).

In 1997, Klint (1997) summarised his professional experience and many years of research in the forest industry in a report describing the situation of the Swedish forest industry (paper and pulp) at the dawn of the new century. Klint concluded similarly that the increased competition on the global market and IT diminishing the role of paper, called for a new strategic direction: a shift from cost to differentiation. This, Klint argued, would require a new view of the market both in terms of broadening the spectrum of customers and collaborating partners, product development beyond the actual product, and challenging assumptions on costs, values and attitudes. He suggests that “flexibility, adaptability and broad knowledge” replace “streamlining, homogeneity and concentration” (ibid., p 94). New organisational structures are also argued to be necessary, advocating structural separation to allow for the development of a new strategic paradigm.

In a report on the paper packaging industry, Jönson (2001) paints a gloomy picture, comparing the industry’s development with that of the competing plastic industry: “The value of plastic packaging will grow faster than that of paper packaging due to a more dynamic development” (ibid., p. 22). With reference to the pulp and paper industry and the development of packaging, Jönson concludes that while packaging (in general) has seen tremendous growth since the 1950s, paper packaging converting concepts, design and service have not. While the plastic industry has set the standard for recycling by addressing the entire packaging chain to solve problems identified by the market, the paper industry has failed to capitalise on sustainability. Jönson suggests three future scenarios: environmental, individual, and/or economic

fundamentalism. This, in summary, argues the need for a more holistic understanding of the paper packaging value and supply chain and the differentiated market needs.

The calls for change continued. In 2008, Ottosson (2008) argued that the forest industry in the Nordic countries was in a dangerously weak position for the future. Ottosson pointed to the need for structural change and the opportunities but foremost challenges in companies like Stora Enso, Billerud, Holmen, UPM, Södra, and SCA where production, logistics and sales structures have been optimised for decades. Ottosson argued that these 'stiffening' structures undermine the ability and driving forces for entrepreneurship and strategic development deemed necessary in a changing landscape with increased competition from new actors on the Asian, South American and Eastern European markets together with increasing costs for energy, environment and timber. The same year, Beckeman (2008), another expert with insight and experience from the Swedish forest industry, argued the need for a new business philosophy based on increased market orientation, open innovation and a change of mind-set in management teams. He added however, "A business philosophy which truly takes its outset in the conditions and needs of the market can be difficult to apply in an industry burdened by tradition and already made investments" (Beckeman, 2008, p.58).

For more than two decades the calls for change and new strategic directions have surrounded actors in the Swedish forest industry. This is an industry with a long history and strategic paradigms formed by different conditions and intents than those now called for. Comparing some of the dominant (listed) actors of the Swedish Forest industry between 2004 and 2010 shows that growth in turnover has been limited, or decreasing, and margins in terms of profit/loss small and fluctuating (Table 3.2).

Table 3.2. Summary of turnover and profit/loss for listed forest industry companies 2004-2010 (The Swedish Forest Industries, 2007b; The Swedish Forest Industries, 2009; The Swedish Forest Industries, 2011b).

Year		Billerud	Holmen	SCA	Stora Enso
2004	Turnover (SEKbn)	7.16	15.65	89.97	12.4 (Eurobn)
	Profit/loss (after tax)	0.51	1.2	3.64	0.74 (Eurobn)
2005	Turnover	6.8	16.3	96.4	122.4
	Profit/loss	neg	1.3	0.5	neg
2006	Turnover	7.4	18.6	101.4	135
	Profit/loss	0.3	1.5	5.5	5.5
2007	Turnover	7.76	19.16	105.91	109.60
	Profit/loss	0.34	1.51	7.16	0.12
2008	Turnover	7.81	19.33	110.45	105.99
	Profit/loss	0.15	0.64	5.60	-6.53
2009	Turnover	7.76	18.07	110.86	95.00
	Profit/loss	0.17	1.01	5.91	-9.33
2010	Turnover	8.83	17.58	109.14	98.22
	Profit/loss	0.71	0.70	6.28	-7.34

3.3 The case of Billerud

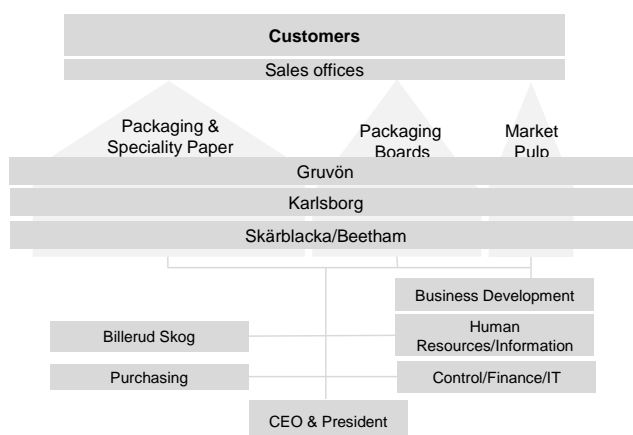
Billerud was formed in 2001 through a merger of three existing Swedish paper mills: AssiDomän's *Skärblacka* and *Karlsborg* paper mills, and Stora Enso's *Gruvön* paper mill. The name Billerud was resurrected, a name with a history in the pulp and paper industry from the late 1800s. The earlier 'Billerud' was acquired by Stora Kopparberg in 1984, forming the predecessor to Stora Enso (STORA). The Gruvön mill was part of Billerud at the time. The Karlsborg mill has a long history in the government owned AssiDomän, and the Skärblacka mill has a history with MoDo (Holmen). The merger in 2001 demonstrates the continued restructuring in the industry where paths between dominant actors on the Swedish market keep crossing.

After the merger of the three paper mills, Stora Enso and AssiDomän owned 50% of the shares in Billerud AB before the company was introduced on the Stockholm Stock exchange in November 2001. With the competence and capacity at the respective mills, Billerud became a leading European manufacturer and supplier of paper and pulp, particularly kraft paper (packaging & speciality paper) and containerboard (packaging boards), aimed for packaging in selected product and customer segments. In 2010, the ownership was distributed among 120,000 shareholders with the Austrian holding company, Frapag Beteiligungsholding AG, being the biggest owner with 21%.

The organisation

Between 2004 and 2010 the number of employees was over 2000, the majority working at the mills: the three Swedish pulp and paper mills in Gruvön, Karlsborg and Skärblacka, and the UK paper mill Beetham, acquired in 2004. The Gruvön mill produces white sack and kraft paper, fluting and white liner for corrugated board and market pulp; Karlsborg, white sack paper white kraft paper and long-fibre sulphate pulp for the open market; and Skärblacka focuses on brown sack paper, white MG paper and fluting. The Beetham paper mill produces paper for medical packaging, food packaging, wallpaper and for various industrial applications. Billerud headquarters is located to Stockholm with eleven sales offices spread over ten countries. The development and changes throughout the years of study is further described in chapter 5. The organisation chart (Figure 3.1) is based on the change from segments to business areas in 2006 (Billerud, 2008).

Figure 3.1. Billerud Organisation Chart 2006-2010.



The offering

Billerud's product mix consists of Packaging & Speciality Paper (kraft paper), Packaging Boards (containerboard) and Pulp. Between 2004 and 2010 the first two made up 80% of the sales, whereas pulp answered for 20%, sold on the open market in volumes not used in the company's own production of paper. For this empirical inquiry, the first two areas have been in focus, especially Packaging & Speciality Paper which is responsible for half of production and sales.

Within kraft paper (Packaging & Speciality Paper), Billerud offers sack paper and technical kraft paper. White and brown sack paper is used in packaging of, for example, building materials and chemicals, food, animal feed and pet food. Technical kraft paper, which can be uncoated and coated MF (machine finished) and MG (machine glazed) paper, has a wide range of applications. One is flexible packaging

where paper is combined with another material, such as aluminium or plastic, used for products that require a barrier against moisture, odour or oxygen. Over the years the offering has been directed towards food packaging, carrier bags, sack solutions and industrial packaging. Service development has included packaging optimising services and solutions for material choice, function, design and sustainability.

Within containerboard (Packaging Boards), Billerud's main products are white liner (surface layers) and primary-fibre fluting (rippled middle layer) and liquid board suitable for packaging of food, beverages and agricultural products as well as luxury and gift items. Over the years the offering has come to focus on fresh foods and consumer goods customer segments, also including market insight, technical consultations and knowledge regarding the role of packaging throughout the value chain.

The developments of the offering, from the focus on new product development to a broader view of innovation between 2004 and 2010, are further discussed in Papers II to III, and in Chapter 5.

The market

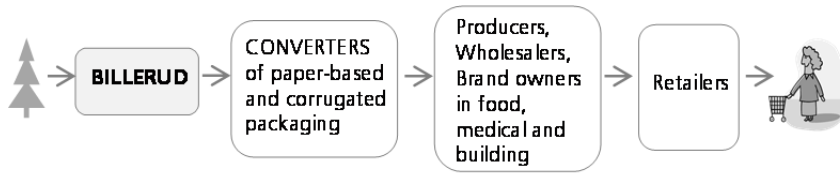
The main market for Billerud is Europe, representing 80% of sales with growing demand from the Middle East, Asia and South America. Billerud has a base of around 1000 customers throughout the world, mainly converters of packaging for the building, food and medical industries.

The customers of Packaging & Speciality Paper are primarily converters producing paper-based packaging for different applications, the majority being packaging for food and similar products. In Europe more than half of Billerud's kraft paper is used by end-customers and brand owners of foodstuff. Main competitors are companies like UPM-Kymmene, Korsnäs, Canfor, Mondi Packaging, Burgo Group, Segheza and Smurfit Kappa Group; hence players on the European and global market.

Billerud's Packaging Boards customers are converters who make corrugated packaging, with the majority going to the food industry for packaging of fruit and vegetables, beverages, luxury items and consumer goods. Main competitors are companies like Stora Enso, Powerflute Oy, Smurfit Kappa Group and Mondi Packaging.

The market share for Packaging & Speciality Paper is 25% globally for white sack paper and a 25% share of the European market for white uncoated and coated kraft paper. For Packaging Boards, the market share in Europe for certain liners and flutes is between 40 and 70%.

Figure 3.2. The supply and value chain of Billerud's offering of Packaging & Speciality Paper and Packaging Boards.



With Europe as its home base, Billerud is active on the global market for packaging paper which accounts for an increasing part of the total packaging market (one third in 2004 beside newsprint and fine paper), with an annual growth of 4% between 2004 and 2010 (Billerud, 2011a). The developments of the European markets are slowing while demand and competition in Asia, Arica and South America are on the rise.

Strategy and major events 2004 to 2010

As mentioned, the study of Billerud took its outset in the company's strategic intent to increase market orientation and new product development. In 2004, changing market demands and continually rising costs of energy, wood and other production related costs initiated a search for new ways to compete. The aim was to move from being a supplier of packaging paper to being an active and natural partner for customers when selecting packaging solutions. Billerud's strategy of 2004 (Billerud, 2005) was to *Focus on attractive niche segments* and *Earnings growth* (increasing margins through new products and markets, reducing costs through increased productivity). While improving the efficiency of production and processes in the mills, the focus was also on increasing margins through increased *customer focus* and new *product development*. An important ingredient was the decision to remain upstream in the supply or value chain (i.e. not integrate horizontally by acquiring converting capacity). In 2006, the financial objectives and strategy were revised anew, focusing on the two parallel cornerstones of *World class process efficiency* and *Customer focused development*, broadening the concept of innovation, a strategy which would remain throughout the empirical inquiry ending in 2010.

The focus of the following chapters and Papers I – IV of this thesis concern the strategic change towards increased customer orientation and innovation, and Billerud's journey from 2004 to 2010. Table 3.3 presents a compilation of publicly retrievable information based on annual reports and press releases over the years that depicts some of the internal and external activities and events impacting Billerud's journey. The table shows some of the myriad of actions taken over the years from external acquisitions and co-operation initiatives with end-customers beyond the direct customers (converters), to organisational changes and development programmes, production efficiency measures, new product and service concept launches.

Table 3.3. CEO statements, communicated activities and events 2004-2010.

YEAR	CEO statements, communicated activities and events (text in bold by author)
2004	<p>“During its first years since formation Billerud has co-ordinated the activities of its three Swedish mills and thereby created a niche business and established listed company focus on packaging paper. Synergies have led to increased production capacity, which has meant a significant rise in deliveries. Following the successful start it is now time to move to the second phase, in which the focus will be on increased market orientation. This will enable Billerud to meet new demands from customers and end-users. Increasing efficiency within the business will be equally important, and this will be done by cutting costs”.</p> <p>A new paper mill in British Beetham acquired.</p> <p>Representative office in China opened.</p> <p>Internal campaign and organisation development project “Billerud 2009” aimed to create a strong and vibrant corporate culture, share working methods of the highest quality and increase efficiency by 20% in 2009.</p> <p>A business control system established to turn the company’s vision into practical action.</p> <p>Implementation of an advanced leadership development programme for senior managers and development programmes for junior managers and specialists.</p>
2005	<p>“A renewal has begun. Billerud’s results were disappointing. Continued weak economic conditions and the dramatic rise in costs for energy, raw materials and chemicals affected us negatively. We have now implemented strong measures to transform our results and build a more modern, more efficient company”.</p> <p>New president and CEO in August.</p> <p>Ownership changes (Frapag 15%).</p> <p>Throughout 2005 an intensive programme of change implemented to create a ‘customer- and market oriented company for the future’ through the “Billerud 2007” project.</p>
2006	<p>“Billerud undergoing change. After several years of faltering profitability, Billerud’s earnings trend was turned around in 2006. Prices could be raised slightly higher than costs increased. Combined with greater efficiency this meant a strong improvement in profits”.</p> <p>New financial targets set and the strategy revised.</p> <p>A new organisation introduced: three business areas: Packaging & Speciality Paper, Packaging Boards and Market Pulp.</p> <p>New people recruited to top management posts.</p> <p>New sales offices in Warsaw and Shanghai.</p> <p>205 employees left the company.</p> <p>Major programme for competence development started.</p>

2007	<p>“The hard work continues. In 2007 we worked very hard and successfully to develop markets, customer relationships and products, to reduce costs and improve efficiency. Over the past 12 months we have raised prices and reduced our energy costs. However, increases in wood costs and currency changes impacted negatively on earnings. We will continue working intensively on our chosen course to make improvements”.</p> <p>New purchasing organisation established through the Billerud Skog AB subsidiary to counter competition and dramatic increase of wood costs.</p> <p>New sales office Shanghai.</p> <p>Formation of consulting firm, Nine TPP, in partnership with the design company, No Picnic.</p> <p>Sack solution centre formed – gathering expertise in sack paper together with technical service and resources.</p> <p>Billerud Box Lab inaugurated – first laboratory of its kind to collect knowledge about optimum design for advanced packaging.</p> <p>Cross mill projects to distribute knowledge and experience and create shared solutions.</p> <p>Training programme for all managers in Situational Leadership.</p> <p>Fresh food project started (increase knowledge about transportation of fresh goods to new customer categories such as fruit importers and wholesalers).</p> <p>Matrix organisation fully implemented.</p> <p>“Billerud 2007” project completed with savings of 250 MSEK per year by achieving maximum efficiency in all processes and continuous productivity improvements. To be continued with a “major productivity programme involving all employees from 2008: One Billerud”.</p>
2008	<p>“A changed reality. Billerud’s positive development continued at the start of 2008. We were successful on the market and our customers appreciated our new business concepts and products. In the middle of the year a weakening in the industrial business cycle became more obvious, and by the end of the year the financial crisis had struck and the downturn was a fact. We were forced to face up to further challenges”.</p> <p>Three primary customer segments prioritised for business development: Food and Consumer packaging, Fresh Foods (fruit and veggies) and Sack Solutions.</p> <p>“One Billerud” launched; major productivity programme involving all employees aimed to cut consumption of chemicals, wood and energy by an annual sum of MSEK 150 by 2009.</p> <p>Financial crisis and economic downturn became increasingly significant for Billerud’s markets in the second half of the year.</p> <p>Work on cost savings continued and further cost savings programmes were initiated, totalling MSEK 250 in annual savings.</p> <p>Redundancies for 125 employees.</p>

2009	<p>“The resurgence. Describing 2009 in brief is almost impossible. We were plunged into a financial crisis and an economic slump with falling demand, plummeting prices and a financial market that practically stopped working all together. However, we handled the situation and bounced back very strongly at the end of the year. I think that in 2009 we really showed Billerud’s inherent strength”.</p> <p>Market share increased in most segments.</p> <p>Strategic acquisition of Tenova Bioplastics AB.</p> <p>Signed agreement with Rigesa in Brazil on deliveries and collaboration.</p> <p>New stretchable and formable paper grade FibreForm launched.</p> <p>Signed up to UN’s Global Compact, introduced GRI reporting and drew up a new Code of Conduct.</p> <p>CSR Council reporting to the CEO and Ethics Council linked to the new code of conduct set up.</p> <p>Sustainable packaging solutions – a new organisation w/in business is Packaging & Speciality Paper.</p> <p>The first sustainability report communicated – with code of conduct and sustainability targets.</p> <p>In 2009 group-wide processes were introduced for recruitment, skills development, salary administration, personnel statistics, health and the work environment.</p>
2010	<p>“Strong position for Billerud. I am pleased, happy and impressed with the progress that we made in 2010. Demand for our products rose very strongly over the year, resulting in an operating margin of 12%. I interpret that as proof of how strong our customer offering is”.</p> <p>Financial targets met for the first time since 2006.</p> <p>Innovation, business development focusing on sustainability increasingly in focus.</p> <p>Billerud FibreForm received several international innovation awards.</p> <p>Emissions of fossil carbon dioxide in the manufacturing process were 21% lower than in the base year 2008, exceeding the target for 2013.</p> <p>Growing sales in Asia, Africa and South America.</p> <p>New mill managers appointed at all three Swedish mills.</p> <p>Changes in group management team from three to one production manager/director.</p> <p>The code of conduct was distributed to all employees in 2010 and training started in the purchasing organisation.</p> <p>First trainee programme for young engineers.</p>

4. Theoretical frame of reference

“In an ideal world, managers could formulate a long-term strategy, methodically implement it and then sustain the resulting competitive advantage. Reality, however, is rarely so neat and tidy”.

(Sull, 2007, p.30)

Strategic change bonds two central themes in the field of strategic management: strategy and change. Research on strategic change has to incorporate both, viewing the process (of change) as teleological, a means to an end (Gummesson, 2000). Strategic change, incorporating market or customer orientation and innovation, yields a rich source of research in different theoretical fields. These fields are home to different schools of thought and offer different perspectives on the matters involved. However, while research in the areas of strategy and organisation (change) theory is vast, linking different notions within and between different fields has not always been acknowledged in research (Baden-Fuller, 1995; Pettigrew, 1990). This is particularly true for the link between strategy, market orientation, new product activity and innovation (Dobni, 2010a; Frambach et al., 2003).

Baden-Fuller (1995) and Pettigrew (1990) argue the need for holistic views in the field of strategy, acknowledging different perspectives and relating what goes on inside organisations to what goes on outside. Translated into the world of practice, a holistic view may be further argued for, as strategy and strategic change incorporate, implicitly or explicitly, both *what strategy is* and how it should be *managed* in a particular context (Markides, 2001).

Based on the calls for new strategic directions in the Swedish forest and paper packaging industry, and the limited research of these issues in this empirical setting, the theoretical frame of reference was formed by the questions raised in practice and the longitudinal empirical inquiry. Markides (2001) argues that academia has been too preoccupied with how to think about strategy and less about how it happens, taking a ‘customer view’ of sorts (i.e. from the empirical perspective). This has inspired the theoretical frame of reference. It has been shaped by the ongoing process of strategic change towards increased customer orientation and innovation in practice, while iterating with relevant and existing literature in parallel. Relying on an abductive process, the framework has been successively modified as a result of unanticipated findings and theoretical insights (Dubois & Gadde, 2002).

The theoretical frame of reference is influenced by the concepts of and prerequisites for customer orientation and innovation and the relationship between these two and

strategy as noted by Frambach et al. (2003) It is also influenced by new strategic paradigms and issues of duality and ambidexterity (Kim & Mauborgne, 2005; Normann, 2001; Smith et al., 2010; Tushman & O'Reilly, 1996) along with different schools of thought in the field of strategy and strategic change. But foremost, the theoretical frame of reference is influenced by the underlying assumptions and implications for implementing, managing and even measuring strategic change (Dufour & Steane, 2006; Whittington, 1997).

4.1 Strategy and change

The core process of a company in the long term is to form new 'dominating ideas' in line with developing external context and to ensure that these ideas are turned into a structure, and a mode of operating within the company (Normann, 2001). In as much, strategic management may be all about change (Cummings & Daellenbach, 2009). However, while managing strategy is to recognise and frequently adapt to changes, strategy itself is about continuity and long-term stability rather than change (Mintzberg & Quinn, 1992). Changing strategy is argued to be far more difficult with consequences of practical and cognitive magnitude. Mintzberg and Quinn explain how changing strategy means "...moving from a familiar domain into a less well-defined future where many of the old rules no longer apply. People must often abandon the roots to their past successes and develop entirely new skills and attitudes" (Mintzberg & Quinn, 1992, p.393). This is a change that in practice may be far from 'neat and tidy' to paraphrase Sull (2007).

Strategic change is a multifaceted concept, defined and manifested in different ways through different schools of thought in the field of strategy. Strategic change may be defined along several dimensions in terms of *what* the change is comprised of, *how* the change takes place (the process), and in terms of intended outcome (Baden-Fuller, 1995; Dufour & Steane, 2006; Pettigrew, 1990; Whittington, 1997). Hence, a change of strategy may encompass one or all of these dimensions.

In terms of what, the online BusinessDictionary.com defines strategic change as "...a restructuring of an organization's business or marketing plan that is typically performed in order to achieve an important objective. For example, a strategic change might include shifts in a corporation's policies, target market, mission or organizational structure". Markides (2001) claims that: "A new strategic position is simply a new viable Who-What-How combination – perhaps a new customer segment (a new Who), or a new value proposition (a new What), or a new way of distributing or manufacturing the product (a new How)" (ibid., p. 9). It may entail a new value proposition based on dual strategic intents (Kim & Mauborgne, 2005; Smith et al., 2010) or developing new resources and capabilities (Eisenhardt & Martin, 2000; Teece, 2007). A real innovation in strategy, in turn, takes place when a company is able to switch from a dominant way of thinking to an alternative way –

from external market analysis to internal core competencies or vice versa (Markides, 1997; Markides, 2001). In brief, these suggestions imply that strategic change and/or innovation may encompass market positioning as well as the internal organisation and management thereof (Baden-Fuller, 1995).

As for how, change can take place through continuous or incremental alternations or improvement towards an explicit or more implicit end, or through more radical rethinking and renewal of the business model (Mintzberg & Quinn, 1992; Normann, 2001; Quinn, 1978). The inherent tensions and experienced paradoxes of change may be dealt with by outsourcing the change problem (spin in/out) or internal spatial and/or temporal separation (Baden-Fuller & Volberda, 1997). Tensions and paradoxes of strategy and strategic change inherent in dual strategic intents and ambidextrous strategies turn the light to other suggestion as to how to manage a transition beyond spatial, or structural, and temporal solutions (Kim & Mauborgne, 2005; Raisch, Birkinshaw, Probst, & Tushman, 2009; Sarkees & Hulland, 2009).

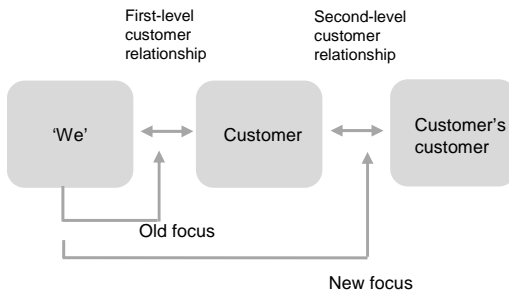
Normann (2001) argues that the majority of change efforts are essentially reactive-adaptive, outside-in processes: in other words, defending or adapting to changes in the market in the hope to retain or increase market shares and profit. Some, albeit few, are proactive inside-out driven, meaning that the organisation creatively imposes itself, and its structures, on the external environment. The intended outcome of strategic change, as in strategy at large, may be that of maximising profit or, depending on how strategy is viewed, be more pluralistic (Dufour & Steane, 2006; Whittington, 1997). While the fundamental question in the field of strategic management is how firms achieve and sustain competitive advantage, Herrmann (2005) argues that 'competitive advantage' will be increasingly difficult to define given the merging nature of different strategic intents, in theory and practice.

Hence, there are a number of variables at play in strategic change; success in turn depends on an equal number of ingredients depending on the organisation at hand, the industry and market in which the organisation competes (Normann, 2001; Whittington, 1997). The forest and paper packaging industry in focus here has over the last century and particularly in recent decades been part of substantial structural changes. This has reduced the number of production units while increasing process efficiency and output volumes. The industry has refined its offerings from hard wood products to pulp, from pulp to paper, paperboard and packaging over a long time (Andersson, 1993). However, faced with limited financial rewards, changes in demand, technology and more, the calls for strategic renewal and change towards increased customer orientation, innovation and differentiation are increasingly competing for a place on managers' agendas, alongside the continuous need for increased efficiency.

4.2 Customer orientation and innovation

Being customer oriented and innovative are two of the most argued prerequisites for long-term success in business irrespective of context, industry and market. The inherent meaning of these prerequisites may however differ, and change, between industries and in the light of new technologies, global competition and changing markets (Normann & Ramirez, 1998). Normann (2001) and Normann and Ramirez (1998) claim that the logic of business is changing and that the competitive edge has moved, from an industrial economy where resource transformation, standardisation and production were at the heart of this logic, to an economy where the crucial competence is to organise value creation. Normann (2001) calls this new paradigm the “reconfiguration of value-creating systems” (Ibid., p. 24), which in turn “implies a dramatic conceptual change and a very real shift in how we view customers” (ibid., p. 25). The major conceptual implication of that is moving away from what Normann refers to as the traditional industrial view of the customer as a receiver, to a view where a company’s offering is seen as an input in the customer’s value creating process. This means going beyond the relationship between one’s first and primary customer to understand the relationship between the customers and the customers’ customers – from the ‘first’ to the ‘second level customer relationship’ (Figure 4.1). Similarly, Day (1999) states the importance of seeing past the immediate customer to understand the end-user, particularly for industrial companies operating at one stage of a complex, multi-stage value chain.

Figure 4.1. From first- to second level customer relationship (Normann, 2001, p. 71)



4.2.1 Market and customer orientation

How customers are viewed, and how learning is enabled from different relationships with first or second level customers depend on the level of market and/or customer orientation in a firm. Slater and Narver (1998) distinguish between two forms of ‘customer orientation’: customer-led and market oriented. They represent different degrees to which a business attempts to understand its market and transform the learning into action. A customer-led orientation is reactive and short-term in nature,

focusing on the customers' expressed needs. A market orientation is proactive and focused on understanding and satisfying customers' expressed and latent needs in the long term. It is in turn based on norms for behaviour that guide learning from and about different types of needs, and responding in an entrepreneurial manner to deliver superior customer value. A market orientation in the view of Slater and Narver implies particular values that precede the norms of behaviour: "A business is market-oriented only when the entire organization embraces the values implicit therein and when all business processes are directed at creating superior customer value" (ibid., p. 1003).

The concept of market orientation has been further conceptualised (Jenster & Jaworski, 2000; Kohli & Jaworski, 1990). Jenster and Jaworski (2000) argue that market orientation rests on information management including: intelligence generation – identification, collection and assessment of customer needs and market trends; intelligence dissemination – formal and informal processes for market information exchange within a firm; and responsiveness to actions taken in response to these factors. Hence, "The extent to which your firm is market oriented depends on the efficiency of its information (Intelligence) management" (Jenster & Jaworski, 2000, p. 358). The authors claim that it is only when all three elements are present that an organisation can consider itself highly market oriented.

The references above can be argued to represent two different views of customer and market orientation present in literature: the cultural and the behavioural (Frambach et al., 2003; Homburg & Pflesser, 2000). Whereas Slater and Narver (1998) represent the former, seeing values as an important ingredient in market orientation, Jenster and Jaworski (2000) represent the latter, suggesting particular activities that guide behaviour. Opposing this view, Slater and Narver argue that if market orientation is simply a set of activities disassociated from underlying values in an organisation, market orientation could be easily implanted in any firm at any time. Linking the two together, Homburg and Pflesser (2000) develop a broader and more in-depth perspective of market orientation.

Homburg and Pflesser (2000) suggest that a market oriented culture is made up of four components (indicating higher or lower levels of market orientation): 1) organisation-wide shared basic values supporting market orientation of, for example, open internal communication and employee responsibility; 2) organisation-wide norms for market orientation meaning values that have become a norm for such things as openness with market-related internal communication and specific market-related employee responsibility; 3) perceptible artefacts of market orientation such as stories and narratives of employees (as opposed to senior managers), customer events and a customer focused (as opposed to and internally focused) language; and 4) market oriented behaviours, referring to the three constructs of information management suggested by Kohli and Jaworski (1990). Postulating a causal chain

leading from values supporting market orientation through norms, artefacts and subsequently behaviours, Homburg and Pflesser's empirical findings show that the establishments of norms are not enough for guiding market orientated behaviours. Their results show that an organisation that has strong norms will not exhibit market oriented behaviours unless the artefacts are also present in the organisations. This emphasises the role of artefacts such as narratives and customer focused language as important determinants of market oriented behaviour.

4.2.2 Innovation

The management literature is full of suggestions on how to boost innovation. In an issue of the *Harvard Business Review* in 2002, the editors asked 16 innovation experts and leaders "What's the one thing you've done that most inspired innovation in your organization?" (HBR, 2002). The answers may be commonplace but relevant with advice such as: make it the norm, mix people up, don't fear failure, abandon the crowd (i.e. don't do as others), don't underestimate science (i.e. science drives innovation as much as markets do), experiment like crazy, don't innovate – solve problems and make it meaningful.

In the literature, innovation is often referred to as a commercially favourable change in the products and services offered by a company and/or change in the ways in which these are created and delivered, as far as to strategy and business model innovation (Deschamps, 2008; Drucker, 2002; Tidd et al., 1997; Utterback, 1996). Deschamps (2008) suggests four categories: 1) new or improved products, processes or service offering; 2) new product categories or service offerings; 3) new business models and systems; and 4) new or improved customer solutions. The level of innovation may equally vary from incremental to really new to radical (Garcia & Calantone, 2002; Utterback, 1996). Each requires in turn different processes, structures, cultures, people and competence (Deschamps, 2008).

The predominant answer to innovation is that it can and has to be managed and managed for, whether it concerns enabling innovation at large within a firm, or a processes for product development (Cooper, 1990; Cooper & Kleinschmidt, 1993; Drucker, 2002; McDonough, 2000; Tidd et al., 1997). Tidd et al. (1997) advocate that innovation is a core process depending on two key ingredients: technical resources (i.e. people, equipment, knowledge, money, etc.), and the organisational capabilities to manage them. It concerns renewing what an organisation offers and the ways in which it generates and delivers this, and hence needs to be managed as such (i.e. a process) and not as a single event. Managing innovation is primarily about building and improving effective routines, and facilitate their emergence across an organisation, including an incremental approach to strategy development, building effective implementations mechanisms, external linkages and a supportive organisational context (Tidd et al., 1997). Innovation is, Tidd et al. argue, foremost a

learning process over time and through experience, and should be managed in an integrated way. It is not enough to develop abilities only in some areas, a process argued to apply irrespective of industry or type of innovation.

The literature on innovation and the different levels thereof is often coupled with an organisation's explorative and/or exploitative abilities. 'Exploration' refers to variation, growth, adaptability, risk taking, experimentation, flexibility, and innovation; whereas 'exploitation' is related to operations, efficiency, refinement, quality, low risk, and even implementation and execution (March, 1991; O'Reilly & Tushman, 2004; Sarkees & Hulland, 2009). To master the dynamics of innovation, Utterback (1996) argues that "...established firms must occasionally attempt to renew and diversify their core business rather than simply improve and expand their well-established products" (ibid., p. xx), hence be able combine explorative and exploitative abilities. Acknowledging that this is more challenging for established firms with a long history, Utterback advocates the need for a strong technical base and a good understanding of markets as critical for prosperous survival. While the sources of innovation have been debated in the literature – be it market demand or internal competence of a firm, framed as (demand) pull or (technology) push – there appears to be agreement that you cannot have one without the other (Di Stefano, Gambardella, & Verona, 2012). Hence, the ability to explore and read market needs has little value if it is not transferred to an offering. Equally, a new product, service or business, however technically advanced or intelligent at the outset, has no value if it is not accepted by the market.

In summarising the ideas and prerequisites for customer orientation and innovation, it should be noted that for some industries, particularly within fast moving consumer goods "...a market orientation is as natural as breathing" and hence the majority of research on the topic is with corresponding actors (Day, 1999, p.5). Other organisations may fail because they are oblivious to the market, are too compelled by the market or see themselves as superior to the market (Day, 1999). As for innovation, the size of a company, market and industry maturity can generate challenges (Utterback, 1996). Dougherty and Hardy (1996) claim that "...large, mature organizations often privilege existing business over new products, avoid uncertainty in favor of the tried and true, and emphasize control over flexibility and creativity" (ibid., p. 1124). Dougherty (1992) found that different interpretive schemes, or "departmental thought worlds" among people in the technical, field, manufacturing and planning areas of a company inhibit innovation and development.

4.3 Linking customer orientation and innovation with strategy

Scholars have underlined the relationship between strategy and market orientation, and strategy and innovation. For example, Tidd et al. (1997) stress the important relationship and fit with a business's *strategy* for successful innovation. Dobni (2010a) argues equally that synergies between strategy and innovation are key for increased value creation. However, while research has been carried out on the relationship between market orientation, innovation and firm performance and the link between strategy and innovation is emphasised, the link and relationship between all three – customer orientation, innovation and strategy – have received limited research attention (Frambach et al., 2003). Frambach et al. postulate that a company's business strategy influences new product activity both directly and indirectly via its influence on market orientation (meaning customer and/or competitor orientation). Taking the outset in Porter's (1980) classification of strategy (i.e. cost leadership, differentiation and focus) and a behavioural view of market orientation, Frambach et al.'s results show that "firms engage in new product activity to a greater extent depending upon the strategic choices they make and upon the degree to which their strategy influences the nature and extent of their market orientation" (Frambach et al., 2003, p. 380).

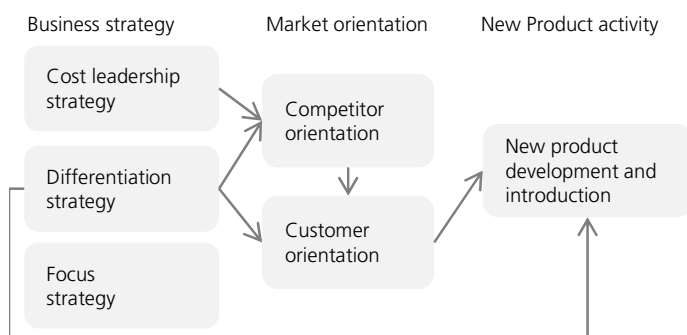
Taking a particular interest in the 'cost versus differentiation' strategies in this thesis, the findings of Frambach et al. (2003) show that 'cost leadership' leads to greater competitor orientation and only limited new product activity. A 'differentiation strategy' on the other hand has a positive effect on a greater customer orientation, which leads to increased new product activity. More specifically, their results show that a firm's strategy influences the nature and the extents of its market orientation and 'new product activity' is simultaneously influenced by the business strategy, directly and indirectly via market orientation. Furthermore, greater customer orientation leads to increased new product activity while greater competitor orientation has a negative direct effect on new product activity. Competitor orientation only indirectly leads to increased new product activity via increased customer orientation (Figure 4.2).

In line with these results, Dobni (2010b) found more recently that an organisation's innovation orientation (i.e. intention, infrastructure, influence and implementation) depended on the type of competitive strategy pursued. Dobni's findings suggest that innovative organisations embrace strategies that are customer focused and information based while organisations with a low level of innovation will be internally focused, reactive and likely to pursue standardisation and cost leadership. However Frambach et al.'s (2003) findings also show that a focus strategy has a negative effect on new product activity and more surprisingly, according to their view, on customer

orientation. This result leads Frambach et al. to suggest support for the resource based view of strategy, rather than the market oriented view they adhere to, in relation to focused firms arguing that these are less able to spend time and resources on customer orientation and new product activity (see Figure 4.2).

Adopting the behavioural view of market orientation, Frambach et al. (2003) argue that strategy precedes and thus influences market orientation. However, when acknowledging the cultural view market orientation would precede business strategy. This is because business strategy, as an indisputable reflection of organisational choices, is also likely to be influenced by an organisation's cultural values. Hence, in the cultural view that posits a causal chain leading from values through norms and particularly artefacts to behaviours as suggested by Homburg and Pflesser (2000), a company's strategy and market orientation may be influenced by artefacts that may, or may not be compatible with the established norms.

Figure 4.2. Framework for the influence of business strategy on market orientation and new product activity, derived and developed from Frambach et al. (2003, p. 380).



The findings of Frambach et al. (2003) and their suggested framework for conceptualising the influence of business strategy on market orientation and new product activity, and results, open up for other avenues for understanding this relationship. Two aspects have been of particular relevance for this thesis: firstly, the definition and view of *what strategy is*, beyond Porter's definition, and secondly, the *cultural view* of market orientation as opposed to the behavioural view, also moving beyond 'new product activity' to a more comprehensive view of innovation and the management thereof.

Linking strategy, market orientation and innovation, over time, offers interesting avenues for research seeing that each of these three may be considered from multiple (philosophical) perspectives, and more than one (practical) level in a firm, and thus can be conceptualised in different ways. Having discussed customer, market orientation and innovation, it is time to turn to strategy.

4.4 What is strategy? Different definitions and schools of thought

There is no one definition of what strategy is and there is no one school (Herrmann, 2005; Markides, 2004; Mintzberg, 1987; Porter, 1996; Whittington, 1997). The debate in the literature on what strategy is has been lively (Markides, 2004; Porter, 1996). Even though the resource-based view is one, if not the most accepted theoretical perspective in the field of strategic management today (Newbert, 2007; Stieglitz & Heine, 2007), the industrial-based view and the generic strategies and frameworks on competitive advantage suggested by Porter (See e.g. Porter, 1985) are still present in academia and practice (Herrmann, 2005; Sull, 2007).

Porter is the long-term authority on strategy. He, referred to the industrial-based view, argues that strategy should be based on a pre-defined and unique market position marked by clear trade-offs between, for example, 'cost leadership' and 'differentiation' for achieving a competitive advantage (Porter, 1985; Porter, 1996). Kay (1993) suggests, contrary to Porter, that a competitive advantage is not reached through trade-offs but rather the through uniqueness and selection of distinctive capabilities of a firm's relationships with customers, employees and suppliers. The resource-based view opposes the whole notion of strategy as position, based on the external and industrial-based view and structure analysis (e.g. Porter's five forces). The resource-based view focuses on an organisation's internal resources and capabilities as a means for competitive advantage (Hamel & Prahalad, 1993; Teece et al., 1997; Wernerfelt, 1984).

Suggestions in the literature that defy the clear lines between the different schools of thought and scholars in strategy may well be a consequence of the more holistic approaches, often referred to strategic and organisational paradox and ambidexterity (see e.g. Eisenhardt, 2000; Gibson & Birkinshaw, 2004; March, 1991; O'Reilly & Tushman, 2004). In 2004 Kim and Mauborgne (2004) coined the term 'blue ocean strategies', a dual paradoxical strategy of sorts. It suggests a combination of cost and value through the creation of 'uncontested market space' as opposed to competing in existing markets as in traditional or 'red ocean strategies'. Smith et al. (2010) use the term 'paradoxical' to combine seemingly different intents to refer to "...multiple strategies that are 'contradictory yet interrelated'. They involve contradictory or inconsistent products, markets, technology or associated resources, yet they both may be necessary for long-term organizational success and, in fact, they can reinforce one another" (Smith et al., 2010, p. 450). Sarkees and Hulland (2009) provide another definition, opposing Porter's notion of choice: "A firm which employs an ambidextrous strategy simultaneously engages in a high degree of both efficiency and innovation, relative to its competitors" (ibid., p. 46). Markides (2004) argues more pragmatically that strategy is both about 'what' game to play, and 'how' to play it,

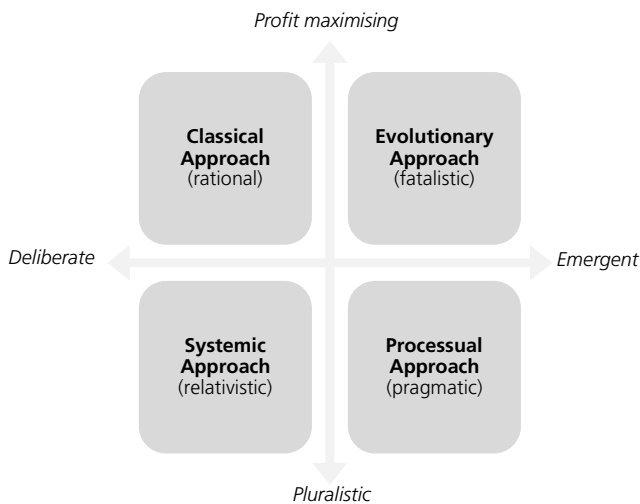
drawing on all suggestions, claiming that strategy is defined by difficult decisions on three parameters: who will be the targeted customers (and not); what products or services will be offered (and not); how to achieve it all in terms of activities to be performed (and not).

Understanding what strategy is may be of little interest when it comes to practice – in the way of the academic debate. However, the core of strategy, meaning the rationale behind, sets the scene for the subsequent questions of content and process, with an impact on the tools and methods used in strategy formulation and implementation in practice. While the content or process may be that of a position, plan, pattern or perspective, Mintzberg (1987) argues that “To almost anyone you care to ask, strategy is a plan – some sort of consciously intended course of action...” (ibid., p. 11), and suggests another view, that distinguishes between intended, deliberate, realised and emergent strategies; hence a process.

4.4.1 Different approaches – different assumptions

Whittington (1997) suggests a categorisation of strategy along four approaches: the classical, evolutionary, systemic and processual. He shows how these differ fundamentally along two dimensions: the *outcome* of strategy and the *processes* by which it is made, based on the underlying assumptions of strategy being rational, fatalistic, pragmatic or relativistic (Figure 4.3).

Figure 4.3. Different approaches to strategy, derived and modified from Whittington (1997, p. 3).



In the *classical* approach, strategy is a rational process, based on deliberate calculations and analysis, designed to maximise profit and long-term success. It is based on the assumption that both the outside world and the organisation itself are predictable. To the *evolutionist*, strategy is about finding the optimal fit between the company and the environment in order to maximise profit. A successful strategy emerges “as the process of natural selection delivers its judgement” (Whittington, 1997, p. 4), the assumption being fatalistic and Darwinian rather than rational. The *systemic* approach is based on relativistic assumptions depending on the particular social system in which strategy making takes place. This approach views strategy as a deliberate process in the pursuit of several objectives such as political and personal ones as well as profit maximisation. *Processualists* take their starting point in a pragmatic assumption that views strategy as an emergent process: “...a pragmatic process of boding, learning, and compromise” (ibid., p. 4) where the outcome is not only about profit maximisation.

With reference to the different authors and strategy academics mentioned, Whittington places the likes of Porter in the classical approach and Mintzberg in the processual approach. The scholars advocating the resource-based view (RBV) are largely absent in this scheme. However, they could be placed in the upper two boxes of Figure 4.3, drawing from rational economic theory and Schumpeterian notions of natural, emergent selection even though advocates suggest that the industrial, classical view and RBV are competitive rather than complementary.

Embracing the different views on strategy, Mintzberg (1987) discusses the non-exclusive nature of strategy in that strategy as position or perspective can be compatible with strategy as plan and/or pattern. In rejecting strategy as being a mere analytically developed plan, a strategically manoeuvred ploy or a market position, Mintzberg and Quinn (1992) state that strategy is the pattern or plan that integrates an organisation’s major goals, policies and action sequences into a cohesive whole. In as much, it is also a perspective that influences the way an organisation develops new ideas, weighs options, and responds to changes in its environment.

In summary, the different approaches represent different paradigms through their ontology, epistemology and as a consequence, methodology. Strategy can be based on externally (i.e. market) defined positions or internally based resources, based on rational or more pragmatic perspectives that allow for both intended and merging outcomes. However, I would argue that as opposed to Teece et al. (1997), strategy paradigms are not necessarily incommensurable or competitive but rather complementary. While planning, linearity and instrumental tools and models may have disappeared or declined in the literature (Cummings & Daellenbach, 2009), they are still used in academia and in practice (Sull, 2007). Whittington’s framework offers opportunities for better understanding what strategy is and how it comes about, of its relevance for the particular study in the paper packaging industry and the link to managing a transition towards increased customer orientation and innovation.

4.5 Managing strategic change towards increased customer orientation and innovation

Although the chasm between strategy formulation and implementation is dismissed in theory, the latter remains an imperative challenge facing firms in practice (see e.g. Mankins & Steele, 2005; Mintzberg & Quinn, 1992; Neilson, Martin, & Powers, 2008; Porter, 1996; Sarkees & Hulland, 2009; Sull, 2007). The challenges and respective solutions to improve organisational performance and competitive advantage are manifold and may result from failures in analysis and formulation and/or implementation.

Closing in on the endeavour of managing change towards increased customer orientation and innovation, Markides (1997) argues that “A company that aspires to be more customer oriented must, at the very least, change its underlying culture, structure, systems and incentives to allow its people to achieve this goal. Simply pronouncing the virtues of customer orientation without fundamentally changing the underlying organizational environment will not deliver any results” (Markides, 1997, p.18). According to Tidd et al. (1997) successful innovation management in turn depends on building and improving effective routines for enhancing the fit with business strategy, effective implementation mechanisms, an enabling and supportive organisational context, and effective external linkages. While these measures are relevant for increasing customer orientation and innovation, translating them into practice may prove a challenging feat.

4.5.1 Dealing with issues of duality and paradox

The suggested strategic change towards increased customer orientation and innovation from an existing strategy paradigm of ‘cost’ to one of ‘differentiation’ further hinges on the notions of duality and paradox. Implementing a dual strategy and/or ambidextrous organisation may be an even greater challenge. Kim and Mauborgne (2005) argue that a ‘blue ocean’ strategy that combines ‘cost’ and ‘value’ represents “...a significant departure from the status quo” (ibid., p. 147), which in turn raises the execution bar. The four main hurdles to implementation are cognitive: “waking employees up to the need for a strategic shift” (ibid., p. 147), balancing limited resources, motivation, and company politics. Kim and Mauborgne (2005) argue that the most important measures for implementing and managing a ‘blue ocean’ strategy are what they refer to as ‘tipping point leadership’ and a ‘fair process’, while also suggesting an analytical framework and a stepwise process for strategy analysis and formulation.

Building on the notion of simultaneously being able to pursue ‘exploiting’ and ‘exploring’, Sarkees and Hulland (2009) claim that failures in implementation can be particularly damaging for an ambidextrous strategy: “The tenuous nature of balancing

efficiency and innovation requires constant reassessment of how the firm is utilizing its resources to support ambidextrous organizations” (Sarkees & Hulland 2009, p. 49). The solutions to ambidexterity found in the literature are foremost structural (Gibson & Birkinshaw, 2004; O’Reilly & Tushman, 2004). Successful ambidextrous organisations have, according to O’Reilly and Tushman (O’Reilly & Tushman, 2004), created organisationally distinct units: “...they separate their new, exploratory units from their traditional, exploitative ones, allowing for differentiated processes, structures, and cultures; at the same time they maintain tight links across units at the senior executive level” (ibid., p. 75). Baden Fuller and Volberda (1997) suggest equally a structural, spatial solution to resolve paradox internally or a temporal separation. Dynamic decision making, conflict and active learning are, furthermore, important enablers to hosting the contradiction and paradox of complex business models or strategy as found by Smith et al. (2010).

On the notions and need for enabling and capitalising on exploration and exploitation, O’Reilly and Tushman (O’Reilly & Tushman, 2004; Tushman & O’Reilly, 1996) advocate ‘ambidextrous organisations’ by which they mean the ability to exploit what an organisation has through increased cost efficiency, and to explore new areas for innovation and growth at the same time (Table 4.1). This is in line with suggestions from other authors (Gibson & Birkinshaw, 2004; Sarkees, Hulland, & Prescott, 2010; Smith et al., 2010).

Table 4.1. Scope of the ambidextrous organisation (O’Reilly & Tushman, 2004)

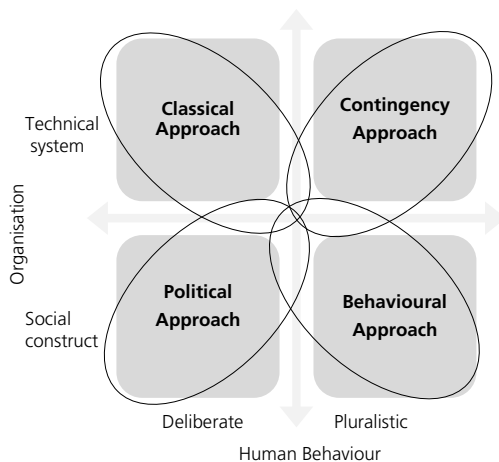
	Exploitative Business	Exploratory Business
Strategic intent	Cost, profit	Innovation, growth
Critical task	Operations, efficiency, incremental innovation	Adaptability, new products, breakthrough innovation
Competencies	Operational	Entrepreneurial
Structure	Formal, mechanistic	Adaptive, loose
Controls, rewards	Margins, productivity	Milestones, Growth
Culture	Efficiency, low risk, quality, customers	Risk taking, speed, flexibility, experimentation
Leadership role	Authoritative, top down	Visionary, involved

Given the suggestions on paradoxical and ambidextrous strategies and organisations, a potential landscape and trajectory of strategic change merges where competing or complementing paradigms of strategy may co-exist.

4.5.2 Approaches to implementing strategic change

Given the different paradigms and underlying assumptions on strategy (see e.g. Whittington, 1997), Dufour and Steane (2006) suggest four main approaches, or “competing paradigms” on strategic change. With labels similar to those of Whittington (see Figure 4.3), Dufour and Steane refer to the *classical* rational approach, the *contingency* evolutionary approach, the *behavioural* approach (similar to Whittington’s ‘systemic’) and the *political* approach (similar to Whittington’s ‘processual’). Dufour and Steane also add dimensions for human behaviour by contrasting voluntaristic and deterministic behaviours, and dimensions for organisations by contrasting technical systems and social constructed ones (Figure 4.4).

Figure 4.4. Approaches and perspectives to strategic change (Dufour & Steane, 2006).



In line with Whittington (1997), Dufour and Steane argue that seeing strategic change from the classical approach builds on a rational planning perspective where decision making and rational tools for implementation are important ingredients. Efficiency is the basic criterion on which to evaluate strategic change performance, seeing change as a technical, non-political activity that proceeds in response to management directives. Success or failure is judged by observing the discrepancy between stated intentions and outcomes. It taps into the traditional levers of strategy implementation such as organisational structure, along with processes and systems for control such as financial analysing, reporting systems and balance score cards (Kaplan & Norton, 1992; Mintzberg & Quinn, 1992; Simons, 1995). The classical approach also relates to the linear and sequential process of strategy formulation followed by implementation. To quote Porter, “Indeed one of the most important functions of an explicit, communicated strategy is to guide employees in making choices that arise

because of trade-offs in their individual activities and in day-to-day decisions” (Porter, 1996, p. 77). While these remain important measures for implementing in practice, other schools of thought offer different solutions.

Mintzberg (1994) has done a meticulous job of dissecting the planning school. He argues that it has created one of the biggest chasms in strategy by separating thought from action, formulation from implementation, and by generating models that give the illusion of control. The processual and political approaches build on a process perspective where networks, bargaining of ideas and resources are central together with the use of language and beliefs. Success or failure then, builds not only on the rationale of efficiency or achievement of objectives but, for example, on the proposal itself, the internal implementation process used and speed of implementation. Hence, strategic change may have been carefully planned in terms of structure and systems, but if it takes insufficient account of the internal and external interests it is unlikely to succeed. The crux of the processual paradigm for strategic change and innovation is conversation, inquiry and dialogue (Jacobs & Heracleous, 2005; Markides, 1997; Vanderheijden, 1996). According to Van der Heijden (1996) the processual school is based on the premise that “... business success cannot be codified, but requires an original invention from the people involved. This implies that the resource the company needs to mobilise is the brain power of its people and their networking and observational skills... ...linking action, perception and thinking towards continual learning” (ibid., pp. 36-37). Pfeffer and Sutton (2000) argue that organisations that are better at learning and translating knowledge into action understand the virtue of simple language, structure and concepts, which they claim to be remarkably uncommon.

Brown et al. (1989) offer an interesting take on learning drawing on research in cognition aimed at a different audience than organisations and management (i.e. education). They argue that knowledge is situated, being in part a product of the activity, context and culture in which it is developed and used. In other words, conceptual knowledge concerning ‘customer orientation’ and ‘innovation’, which is in focus here, cannot be abstracted from the situations in which it is learnt and used; what is learnt and how it is learnt cannot be separated because learning and cognition are fundamentally situated. Brown et al. outline components for a framework where activity and situations are integral to cognition and learning. They argue that concepts are both situated and progressively developed through activity. Concepts (or knowledge) can in turn be seen as tools, which can only be fully understood through use (and using them entails both changing the user’s view of the world and adopting the belief system of the culture in which they are used). It is thus not possible to use a tool without understanding the community or the culture in which it is used.

Given the claims that strategic change and strategic innovation require shifts in mental models and mind-sets (Jacobs & Heracleous, 2005; Markides, 1997), Jacobs

and Heracleous (2005) state that “the link between discursive action and the constitution of mental maps has been acknowledged in the literature, but not within a broader framework linking such shifts with strategy innovation” (ibid., p. 348). Their findings show that fundamental strategic innovation requires shifts in existing mental models of organisational actors that underlie the overall strategy paradigm of a firm. They suggest that dialogue as a form of reflective conversation enables actors to alter managers’ mental models through conscious, critical exploration. “Given the emergent nature of strategic innovation and the relevance of conversation for processes of change, understanding the conditions of possibility for a shift in mental models is critical for understanding the antecedents of strategic innovation itself” (ibid., p. 339).

Strategic change in the processual view is an incremental affair, not necessarily haphazard but deliberate as in logical incrementalism suggested by Quinn (1978). The view that strategic change is incremental is shared by proponents of the resource-based view, albeit based on building or altering asset resources and dynamic capabilities rather than changing mental models. However, Hamel (1996) being an advocate of the RBV, suggests that strategy is revolution, everything else is tactics. This suggests a pragmatic, democratic and participatory process of strategy formulation and implementation, particularly when there are no clear answer to where the end is: “Though it is impossible to see the end from the beginning, an open-ended and inclusive process of strategy creation substantially lessens the challenge of implementation. Implementation is often more difficult than it need be because only a handful of people have been involved in the creating of strategy and only a few key executives share a conviction of the way forward” (ibid., p. 82).

Hence, where the classical, rational approach to strategic change is normative and fails to capture the interactive relationship between formulation and implementation, it does offer models and measures familiar to the strategy process. The political approach (or ‘processual’) acknowledges the human and political dimensions – conflict and processes in organisations and decisions that are coupled with perspectives and measures that may seem easy (i.e. dialogue) but can be more difficult in practice. Given the empirical study in focus here, I subscribe to the argument by Dufour and Steane (2006): “Understanding strategic change benefits from a holistic treatment which allows divergent paradigms and perspectives to co-exist and ultimately contribute to analysis” (ibid., p. 142).

4.5.3 Managing market oriented and innovative capabilities

Baden-Fuller (1995) advocates a more holistic view for renewing and innovating the field and practice of strategy. He suggests that dynamic competence-based theories and ‘dynamic capabilities’ offer a potential avenue as these are closely tied to innovation. The literature on innovation management (see e.g. Tidd et al., 1997) and

ambidextrous organisations (see e.g. O'Reilly and Tushman, 2004) incorporates many of these notions in the scope of combining abilities for exploring and exploiting; linking different perspectives, activities and capabilities.

The contemporary theoretical extensions of the resource-based view on strategy into 'dynamic capabilities' focus beyond static resources, to processes, by which resources, and capabilities such as skill acquisition and learning is be utilised and/or altered to attain competitive advantage (Herrmann, 2005; Newbert, 2007). Teece et al. (1997) suggest that the competitive advantage of firms rests on distinctive managerial and organisational processes (ways of co-ordinating, integrating and learning) shaped by a firm's (specific) asset positions (i.e. resources) and the evolution or path(s) it has adopted or inherited. The altering process is argued to be incremental in that competences and capabilities must be built and cannot be bought. While Newbert (2007) argues that the notions on dynamic capabilities are still in their infancy in terms of empirical evidence, more recent papers by Teece (2007) and Eisenhardt and Martin (2000) offer inspiration to the empirical findings. These notions in theory have not guided the empirical inquiry, but they have offered interesting reflections thereafter.

Teece (2007) integrates strategy and innovation literature suggesting an umbrella framework that "highlights the most critical capabilities management needs to sustain evolutionary and entrepreneurial fitness of the business enterprise" (ibid., p. 1322). Teece states that this is accomplished through three distinctive managerial and organisational processes: sensing, seizing, and managing. These encompass sensing and shaping opportunities and threats, seizing opportunities and maintaining competitiveness by enhancing, combining, protecting and when necessary reconfiguring the business enterprise's intangible and tangible assets. Teece hypothesises that excellence in these orchestration capacities undergirds a company's capacity to successfully innovate, capture value and deliver superior long-term financial performance. However, Teece's framework is based on firms operating in the high technology sectors (i.e. IT) where rapid innovation and globally dispersed sources of invention, innovation and manufacturing capabilities are at their core, far from the reality of the forest and paper packaging industry. Nevertheless, it is an interesting framework, integrating internal and external perspectives with innovation management, managerial practices for implementation and decentralisation. Whilst based on rational assumptions, it appears to be open for more pragmatic approaches, albeit based on a different industry than the one in focus here.

Based on organisational and empirical views, Eisenhardt and Martin (2000) suggest that while dynamic capabilities may be idiosyncratic (i.e. firm/industry specific) in their details and path dependent in their emergence, they have commonalities. Hence, suggesting that dynamic capabilities are the antecedent organisational and strategic routines by which managers alter their resource base, which in turn is dependent on

the dynamism of the market. The capabilities themselves are not the source of competitive advantage. Considering different market dynamics, Eisenhardt and Martin advocate that for companies in moderately dynamic markets (i.e. where industry structures are stable, market boundaries clear and players well known), effective dynamic capabilities rely on existing knowledge that can be managed in an ordered and linear fashion from analysis to implementation. The learning mechanisms that guide the evolution of dynamic capabilities in these markets are based on frequent, small variations that help managers to deepen capabilities by elaborating them in current situations and extending them to related new ones. This results in efficient, robust routines that keep pace with changing markets and broaden opportunities for growth. For companies in high-velocity market the opposite is true: dynamic capabilities are highly experiential, processes fragile and the outcome unpredictable. Learning mechanisms that guide the evolution of dynamic capabilities in these environments are based on selection.

The 'processes', 'positions' and 'paths' of actors in the forest and paper packaging industry are based on long-term investments in manufacturing assets and high technology processes to produce high volumes at competitive prices, rather than high technology products, and relatively stable markets. Nevertheless, the suggestions on dynamic capabilities can provide interesting input in relation to the empirical findings.

4.6 Measuring the outcome or process of strategic change

In strategic management there is an assumption about 'closing the gap' between strategy formulation and implementation, between thinking about what to do and doing it. Measuring the outcome of strategy, firm performance and competitive advantage is a field in itself. Here, the outset is simply the underlying paradigms and assumptions on which the strategy rests, in theory and practice, in relation to how strategic change can be measured and further understood. Given the rationales of the different schools of thought in the field of strategy and strategic change, *if* and *how* this 'gap' can be closed and thus measured differ along equally different dimension (Dufour & Steane, 2006). The outcome of strategy, based on rational assumptions as in the classical approach, is measured by its efficiency, where the key is to observe the discrepancies between stated intentions and results in relation to firm performance (e.g. financial, market share, etc.). This is a familiar practice in a business setting that is carried out in relation to the achievement of financial objectives and the expected outcome of 'maximised profits' or shareholder wealth. When it comes to the strategic change towards increased customer orientation and innovation in focus here, other measures can be relevant such as the number of new ideas and products, failure rates, measures of continuous improvement, customer satisfaction, patents, etc. (Tidd et al., 1997).

Strategy based on other assumptions such as in the processual or political based approaches, acknowledges outcomes other than profit max and subsequently other measures of, for example, the internal implementation process suggested by Dufour and Steane (2006). Strategy scholars emanating from these approaches stress the importance of dialogue and the use of language in the internal processes of discussion and ‘bargaining’ of ideas and resources. Given the argued cognitive and mind-set challenges of strategic change in general (Mintzberg & Quinn, 1992), and the dual or ambidextrous strategies (Kim & Mauborgne, 2005; O'Reilly & Tushman, 2004) in particular, raises the question of other ways to measure change. With regard to the strategic change process in focus here, Homburg and Pflesser's (2000) findings are interesting on the relation between cultural artefacts (such as market oriented language) being an important prerequisite for translating new norms for market orientation to actual market oriented behaviours.

Much qualitative research of organisations in general reflects an interest in language both in terms of studying language as such – how it is used and the consequences in organisation life – and in terms of particular methods for the study thereof (Bryman, 1989). Bryman states that there has been a growth of interest in the detailed analysis of cognition, communication and culture, which on their own are not new issues in organisation research. The formulation of issues, however, has altered towards how communication is interpreted (by peers in an organisation) and the relationship to cognition, dialogue and strategy performance and innovation.

Hence, based on the literature one can assume that as a strategic change process progresses, a new language will be used and developed both in lexical terms (new vocabulary) and semantic terms (the inherent meaning of words and narratives). This raises the questions of if and how language can be measured, not only in terms of word frequency but of the semantic meaning of words and narratives.

4.7 Previous research in the Swedish forest and paper packaging industry

The empirical settings and bases for research in strategy, innovation and customer orientation are often industries and companies operating in environments and targeting customers different from those found in the Swedish forest and paper packaging industry. Companies like IKEA, Tetra Pak, Body Shop, Swatch, Dell Computer and the IT industry at large, Southwest Airlines, Cirque de Soleil and Japanese car manufacturer are commonly referred to in the strategy and management literature (see e.g. Hamel 1996; Normann 2001; Porter 1996; Kim & Mauborgne 2005; Teece et al., 1997). Research on strategic renewal and innovation with paper and pulp producers and related product sectors has thus far been very limited (Bjorkdahl & Borjesson, 2011). However, the report by Klint (1997) referred to in

the previous chapter, and two recent papers summarised below are of relevance for this thesis as these address the particular situation, the need for new strategic direction and challenges of creativity, knowledge and innovation on the firm level in the industry.

Kalling (2007) identifies and discuss obstacles to innovation based on a case study of one company (SCA Packaging). By applying organisational learning and knowledge management theory, his findings show hurdles linked to the organisational context (i.e. organisational structure and interfaces, control mechanisms, communication and financing) and institutional factors (i.e. environment, strategy, norms and values). While many challenges are identified in the organisational context, the main conclusion is that institutional forces, and particularly norms and values, are root causes that affect both the organisational context and the knowledge-related factors behind learning. In the particular case, the obstacles impacting learning and innovation in terms of institutional factors are found in relation to the perception, norm and value held by the company that the relevant stakeholders (customers, competitors, suppliers) do not form an environment where innovation is required; rather, price cuts are the name of the game. This results in a strategy where innovation has no place, where choosing the known outplays the unknown. In contrast to previous research, Kalling underlines that even though abilities for learning and innovation may exist, there has to be a will to change.

Björkdahl and Börjesson (2011) investigated the prerequisites for innovation in terms of organisational climate for creativity and innovative capabilities based on interviews and questionnaires including eight Swedish and one Norwegian firms (Billerud, Eka Chemicals, Elopak, Innventia, Lyckeby, SCA Personal Care, Stora Enso Packaging, Södra Cell, and Tetra Pak). Their findings suggest, similar to Kalling's (2007), that two important capabilities for innovation are management willingness and awareness, and a strategy for innovation. While their results show that there is a creative climate and potential for innovation in the firms, on average with regard to the creative climate, the firms score lower on important dimensions such as "freedom, playfulness, liveliness and risk-taking" (Björkdahl and Börjesson, 2011, p. 494). In terms of innovative capabilities (i.e. strategy, culture, idea management, external environment, implementation, organisational context, etc.), the results are generally positive. However, the average results are below 2.0 (based on a 4-point Likert scale) on all parameters. In particular, the scores are low on implementation meaning ". . .the firm's ability to implement a new idea to translate it into a concept, or a new offer. It includes systematic and conscious reflection on potential ideas in light of new business opportunities and/or new business models. It includes the firm's ability to rethink current ways of operating in order to identify new opportunities" (ibid., p. 494).

What is of interest for this thesis in the references above is not only the findings and suggestions but also the bases of different schools of thought (i.e. the marketing- and industrial-based view of Klint (1997) and the resource-based view in the two latter) which provide different ways of understanding strategic renewal towards increased customer orientation and innovation in the forest and paper packaging industry.

4.8 Summary

Given the iterative development of the theoretical frame of reference in relation to the unfolding empirical findings over time, the aim has been to allow divergent paradigms and perspectives to co-exist and ultimately contribute to analysis, to paraphrase Dufour and Steane (2006). While the ‘industrial-based view’ (i.e. Porter’s cost/differentiation) influenced the outset for the empirical inquiry – although agnostically used as the existing strategy perspective and paradigm in the paper packaging industry – notions from the resource-based view are prevalent in sources on innovation and management.

The literature on strategy answers to what to do in terms of how to compete (based on market and/or resource position), where to start the analysis (externally and/or internally), what the process may be (an analytically derived plan to be implemented and/or emerging events to be faced with creativity) and what levers to pull (trade-offs and control and/or dynamic capabilities). The question of how to go about it in a particular setting remains.

Hence, with the aim to increase the understanding of strategic change towards increased customer orientation and innovation, the empirical setting of the Swedish forest, paper and packaging industry is relevant with the view to contribute to existing and future research from a different perspective. The frame of reference has been influenced by concepts and prerequisites for *customer orientation* and *innovation* and *the link* between the two and strategy, given the focus on the emerging *issues of duality in practice* and the implications for implementing, managing and measuring strategic change. To quote Herrman (2005), “The most important focus of strategic management is now how firms gain knowledge and how they learn to achieve sustainable competitive advantage” (ibid., p. 113). This stresses the need for new dominant designs in strategy that revolve around knowledge, learning and innovation and close interaction with practice.

5. Summary of findings and appended papers

“If to do were as easy as to know what were good to do, chapels had been churches and poor men’s cottages princes’ palaces”.

(Portia, in Merchant from Venice by William Shakespeare)

5.1 Introduction

Knowing what to do may be a challenge, but the crux lies in the doing – a conundrum equally noted in academia and practice. The calls for new strategic directions towards increased market orientation and innovation in the Swedish forest and paper packaging industry have been heard for over two decades. This thesis explores and describes one company’s journey towards this end.

Representing the forest industry throughout is the case study performed at Billerud between 2004 and 2010. The findings have been reported and published in peer-reviewed journals (Papers II to IV) and at academic conferences (Papers I and V). There are in total five appended papers of which Paper I was included in the author’s licentiate thesis (Olander-Roese, 2008). The main findings that answer the research questions are found in Papers I to IV. Paper V concerns research methodology and is summarised in Chapter 2.

The findings presented and discussed in this chapter are from Papers I to IV. They are summarised and discussed alongside additional findings from the empirical inquiry and one delimited case study. Paper I is about challenges to strategic change, identified in relation to the initiative to increase market orientation and new product development taken by the management team of Billerud in 2004. The delimited and replicating case study of BETA is briefly discussed. The findings reported in Paper I together with the BETA study formed the main results in the preceding licentiate thesis.

Papers II to IV are the result of the continued empirical inquiry at Billerud and further address the challenges of the intended strategic change, the management thereof, the outcome thus far and a novel way of measuring the development. Paper II describes and illustrates the merging duality of the intended strategic direction and proposes the managerial consequences thereof. Paper III further elaborates on this duality and suggests four mechanisms for managing issues of strategic and

organisational paradox, over time. Finally, Paper IV hypothesises the role of language in strategic change and discusses results from analysing the semantic development over time.

Now, let's start from the beginning.

5.2 Towards increased customer orientation and innovation

Entering 2004 Billerud, had reaped the benefits of the 2001 merger of the three founding mills. Having spent the first three years since the formation co-ordinating and streamlining activities and creating synergies, it was now time for the next step. The management team was deliberating on questions like: How to keep the success achieved so far by increasing market pull (instead of push)? How to create a product development process which guarantees innovation and "new thinking"? How to learn more about the market and identify potential areas of development?

From the start in 2001 Billerud's strategy had been to focus on attractive niche segments in kraft paper and containerboard, increase productivity to ensure a competitive cost position and organic growth. In their own words Billerud's competitive strengths included cost-effective production, leading supplier positions in certain product segments and its integrated pulp and paper production. Customer-driven product development was an essential part of the initial strategy with the aim to strengthen the capability to supply product and service offerings in line with the increasing demands from the packaging industry. The customers being converters of paper-based and corrugated packaging.

The strategy was revised in 2004. With its financial objectives as a starting point, Billerud's strategy was to *focus on attractive niche segments* and *earnings growth* (increasing margins through new products and markets, reducing costs through increased productivity). Further focus was put on increasing productivity in light of continued price pressure, a declining demand on the European market, competing materials (i.e. plastics) and increasing energy costs. While making production and processes in the mills more efficient, the emphasis was also on increasing *customer focus* and *new product development*, together with acquisitions rather than organic growth. The aim was to "...move from being a supplier of packaging paper to being an active and natural partner for customers when they select packaging solutions" (Billerud, 2005, p. 8). An important ingredient was the decision to remain upstream in the supply/value chain, that is, not integrate horizontally by acquiring converting capacity.

A number of implementation measures followed in 2004. The matrix organisation was complemented with 14 segment teams with specialists from different

departments, divided according to the different product applications. The cross-functional segment teams were given two targets: initiate road shows amongst customers' customers (i.e. brand owners), and develop two new products or product improvements per year. Internal networks were set up to inspire participation and commitment. The "Billerud 2009" project was launched with the aim to create a "strong and vibrant" corporate culture, to share high quality and standardised working methods and to increase efficiency by 20% in 2009. A leadership programme for senior managers and development programme for junior managers were implemented. In February of the same year, the paper mill in British Beetham was acquired to strengthen Billerud's position in the prioritised segments of paper for medical and flexible packaging. The internally communicated strategy illustrated the aim to increase productivity while also placing additional focus on customers and new products (see Figure 5.1).

Figure 5.1. 2004 strategy (internal presentation, January 2004).



Interestingly, the business concept was revised, indicating a focus on 'efficiency' rather than 'innovation' which had been part of the initial concept:

Billerud will provide its customers with efficient packaging paper. The business shall provide good and stable profitability, based on cost-effective and environmentally appropriate processes (Billerud, 2005).

Summarising the year in the annual report of 2004 in the beginning of 2005, the acting president and CEO emphasised the direction aimed for: "Following the successful start [i.e. in 2001] it is now time to move to the second phase, in which the focus will be on increased market orientation. This will enable Billerud to meet new demands from customers and end-users. Increasing efficiency within the business will be equally important, and this will be done by cutting costs" (Billerud, 2005, p. 5).

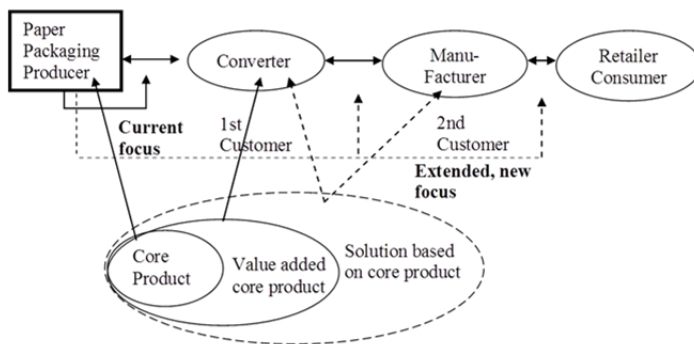
Hence, whilst customer focus had always been an integral part of Billerud's strategy, the new direction with 'increased market orientation' indicated a broader view of customers, including not only Billerud's customers – converters of packaging material – but also end-users, meaning manufactures of consumer, food and medical products.

“We have to put less focus on our machines and more focus on our market – we need to focus on value rather than production capacity and tonnage”, as expressed by one senior manager at the time. However, implementing the new strategy through the newly formed segment teams proved difficult. These difficulties were explored in the initial phases of the empirical inquiry and summarised in Paper I.

5.2.1 Paper I. Challenges to Redefining the Supply Chain for Increased Customer Orientation and Product Innovation

Paper I explores and identifies challenges for increasing customer orientation and innovative product development. The logic behind the paper was that understanding the challenges will increase understanding of what may impact strategic change and particularly the management thereof. The paper takes the outset in Billerud’s wish to redefine the supply chain, turning it into a “demand” rather than “supply chain” and the decision to extend the scope, from first to second customers to paraphrase Normann (2001). Moving beyond their customers (the converters) to the customers’ customers (e.g. manufacturers of consumer, food and medical products) was primarily a means for market learning. The newly formed segment teams were given the task to map the value chain, perform road shows among second customers and suggest a minimum of two new product improvements (cost savings) per year and identify new needs for packaging solutions (Figure 5.2).

Figure 5.2 Billerud’s new supply chain perspective (derived from Paper I).



The central challenges to the new perspective and intended approach identified were summarised in four main themes: 1) dominant perspectives, 2) tools and processes, 3) strategy and strategic decisions, and 4) implementation approach. These were derived from the identified gaps between the managements’ strategic intent and employees’ understanding and existing know-how, particularly in relation to the ‘market’ and ‘new product development’.

The first theme, *dominant perspectives*, captures the internally strong focus on production in terms of investments, improvements and development rather than developing markets, customers and products beyond existing ones (i.e. converters). It also captures the dominant perspective of ‘customer’ and ‘market orientation’ in theory (coupled with references to companies on dynamic markets and fast moving consumer goods), and questions what these terms actually entail for actors upstream in the paper packaging industry. The second theme, *tools and processes*, captures the existing know-how for enabling market learning, product development and innovation which were limited. The targets given to the segment teams to explore the value chain, develop new products and redefine Billerud’s position in the supply chain were questioned: “We are to launch X number of products each year but I do not know what defines a new product” (Member of segment team). Thirdly, *strategy and strategic decisions*, refers to the intent (i.e. increase customer orientation and new product development) in relation to the assumptions guiding strategy, reflected in strategic decisions taken. The intent as communicated by management was to differentiate the company and to combine cost leadership with a form of differentiation. However, decisions taken on cost-reductions and standardisation of working procedures (i.e. “Billerud 2009”), created confusion in the organisation: “The company must decide where it’s going – are we to produce paper and aim for low prices or are we to deliver packaging solutions which will cost more money initially?” (Member of segment team). The seemingly conflicting strategic intents, manifested in the strategic decisions, put the light on the relationship between customer orientation, new product development and the underlying business strategy which has received limited attention in research (Frambach et al., 2003). Lastly, the fourth theme, *implementation approach*, captures the linear and top-down approach identified: “We did the job, and in the strategy was a description of what we expected,” as expressed by a senior manager. The communication of the new structure and objectives for the segment teams resulted in different interpretations of what the strategy was, and how it was to be implemented. This manifested itself in the daily work; however, it did not create the commitment hoped for. The identified set-back begged the question of different approaches to strategy formulation and implementation in relation to the strategic change aimed for, polarising the classical and processual schools of thought in the field of strategy (Whittington, 1997).

In summary, the challenges to becoming more customer oriented and innovative were found in the lack of tools and processes for market learning and new product development. The challenges appeared to be related to a dominant way of thinking and acting by managers and employees, influenced by the current view of customers and the assumptions guiding strategy. While the challenges identified are acknowledged in theory, their relationship intrigued. This relationship, and the link between strategy, market orientation and new product activity coupled with the challenges of implementation raised questions for continued research on their order of

influence and how these challenges could be managed, considering also assumptions and definitions of strategy, customer orientation and innovation in this particular context. The suggestions by Frambach et al. (2003) are based on a behavioural view of marketing. It posits that strategy influences market orientation and hence new product activity. The cultural view suggests another perspective which, given the identified challenges, could further contribute to understanding the suggested link in the empirical setting in focus here. Hence, while Paper I aims to identify the challenges, the main contribution lies in acknowledging 'the link' and the need for further research on the understanding and management thereof over time.

5.2.2 A replicating case in the PaperPackaging industry

To replicate the results from the initial study of Billerud, one delimited case study was performed regarding the identified challenges or themes of strategic change. This study was reported in the author's licentiate thesis (Olander-Roese, 2008). However, given that the study serves to support and contrast the findings in Paper I (representing the integral findings of the licentiate) it is briefly summarised here. The study was performed in a company referred to as BETA, at the request of the company interviewees. BETA, a leading European paper, board and packaging company was selected having initiated a strategic change effort similar to the one of Billerud, but ten years earlier, defending the industry against plastics which were then becoming a threat.

The study supported and contrasted the identified challenges Billerud faced, in an effort to increase customer orientation and innovation in the paper packaging industry. With regard to the themes and challenges of dominant perspectives and tools and processes, BETA's antidote had been to extend the boundaries (downstream) the supply chain, including customers (brand owners) and customers' customers (the retailers) in their scope. The new scope was tightly coupled with tools and processes for market learning and product development. As expressed by one interviewee "...it is one of the most important factors for our industry: study the retailer and study the consequences and have business chain models available to handle that". Hence, extending the boundaries, as was Billerud's intention, appeared to be a step in the right direction. However, the fact that BETA was an integrated company (i.e. offers converting capacity) appeared to have eased their contacts with, and learning from actors downstream the value chain. There was simply more experience in BETA from working in a 'market oriented' way by having the brand owners as customers. Billerud's position further upstream and the limited experience of working with brand owners (customers' customers) posed a greater challenge (Paper I).

With regard to the challenge of strategy and strategic decisions, BETA's strategy had a similar dual focus on costs and customers' differentiated needs, albeit from a different

position in the supply/value chain. Without decreasing their efforts to increase productivity, similar to Billerud, BETA allocated substantial resources to R&D and product development. Resources were also spent to improve sales process and customer relationships. Hence, the strategic decisions taken supported the intended strategy, or were in line with the intended strategy, which initially did not appear to be the case at Billerud. Furthermore, the implementation approach in BETA differed from that of Billerud. Where Billerud relied on communication and the segment structure, BETA's management team selected a team of individuals from different departments who were part of planning and implementing the new strategy at the time. In the continuous process, one plant was selected at a time to accomplish the changes aimed for.

However, at the time of the study, BETA had just merged with another European firm, becoming a world leader in paper-based packaging: A few months later the R&D budget was heavily reduced, putting a hold on the customer development studies. A new strategy was to be developed, which at the outset did not support the ongoing activities in BETA. At the end of the study one question was left unanswered: Was BETA's previous effort just a temporary exception to the forest and paper packaging industry paradigm, which according to industry expert Beckeman, is "...indisputably supply driven with a production oriented business philosophy" (Olander-Roese, 2008; p. 34).

The challenges identified and replicated in the study of BETA indicated benefits of extending the scope beyond a company's first (transaction) customer to the customer's customer: the second customer as stated by Normann (2001). However, more interestingly, the findings pointed to the inherent nature of the strategy paradigm in a firm, in relation to the intended, contrasting the aim towards increased customer orientation and innovation in relation to a "production oriented business philosophy". Hence, the question of how a similar strategic change process can be understood through different perspectives of strategy and schools of thought emerged in the empirical inquiry. The assumptions guiding strategy, irrespective of the different positions in the supply and value chain of BETA and Billerud, further emphasised the previously identified link. This was particularly interesting because Billerud continued emphasising the focus on customers and innovation, beyond new product development whilst also pushing further for increased productivity and process efficiency.

5.3 Towards a dual strategy

In March 2005 the forming CEO left Billerud and a new CEO was in place a few months later. The same year, weakening of the market conditions and rising costs for raw materials and energy brought down the operating margin from 11% (2004) to 3% (2005). The CEO's statement in the Annual Report of 2005 read: "Billerud's

results were disappointing. Continued weak economic conditions and the dramatic rise in costs for energy, raw materials and chemicals affected us negatively. We have now implemented strong measures to transform our results and build a more modern, more efficient company” (Billerud, 2006, p. 4).

A new management team was formed around the new CEO between 2005 and 2006. Together with external expertise, Billerud’s financial objectives and strategy were revised anew, focusing on two parallel cornerstones of: *world class process efficiency* and *customer focused development* (Figure 5.3).

Figure 5.3. The strategy of 2006 with culture, values and human resources added in 2009 (Billerud, 2010).



The business concept was revised to:

Billerud offers demanding customers packaging material and solutions that promote and protect their products – packaging that is attractive, strong and made of renewable material (Billerud, 2007).

This placed more emphasis on the end-product packaging and customer value as opposed to the former business concepts that were based on first customers and the efficiency of operations providing the packaging material.

The central driving force for Billerud was to continue to move away from being a traditional paper-pulp supplier to a customer focused, solution oriented company; from a position of competing on price, volume and receiving orders, to taking a proactive lead in the development of future packaging and packaging solutions. As stated by the CEO in the annual report of 2006: “We must adopt new approaches in our markets, work with completely new customer groups and develop new solutions based on the strong positions we already possess in a number of segments”. After Billerud’s Capital Markets Meeting at the end of 2006 the message in the news was: “There is no doubt Billerud wants to move forward in the packaging industries value chain” (author’s translation), further explaining the company’s aim to redefine its position rather than integrate forward (MH, 2006).

The new strategy introduced in 2006 indicated the ambition to concentrate on customer focused development and production efficiency, in parallel, and as expressed by one senior manager: “It is becoming a blue ocean strategy, we are finding new oceans where no one is” (referring to the efforts to develop and find new applications for paper and packaging where other materials, and other industries, have had the monopoly). In real terms this has entailed a new view of the customer to also include second customers, brand owners and even the third: retailers. Product development has moved beyond new offerings of new paper qualities (which up until 2005, for example, featured lower-grammage/m², technical performance and runnability) to a broader concept of innovation of products and service solutions in co-operation with external partners: second customers and others.

Given the new strategy, the issues of a seemingly dual approach, combining ‘cost leadership’ with that of ‘differentiation’ were identified. In Papers II to IV, the findings of the continued empirical inquiry until the beginning of 2011 are presented. Building on the initial themes and challenges, the continued study contrasts differences and similarities between the years, capturing the interviewees’ experiences and reflections on the journey. This resulted in a proposed landscape for strategic change along with ways and mechanisms for managing and measuring the same. Paper IV takes into account the first three years by use of quantitative methods to illustrate the strategic change through the semantic development from 2001 to 2010.

5.3.1 Paper II. Challenging the Strategy Paradigm within the Paper Packaging Industry

Paper II suggests and illustrates the content and process of developing and implementing a strategy through the lenses of different schools of thought in strategy. The paper argues that positioning dominant and contemporary schools of thought in strategy on the same map coupled with suggested archetypal characteristics of different strategic positions and ambidextrous organisations (i.e. the ability to exploit and explore), yield a more comprehensive framework for understanding the complexity of a strategic change journey in practice, moving from ‘cost’ towards ‘differentiation’ or aiming to combine both. As a result, an initial conceptual framework: a landscape, is proposed (see figure 5.4) and further discussed in relation to the managerial and cognitive challenges.

The resulting framework, or proposed landscape of the studied strategy development presented in Figure 5.4, aims to contrast the dominant and preceding strategy paradigm of Billerud (the upper left hand triangle) and an interpretation of what a strategy of differentiation may entail (the lower right hand triangle), marking also a combination thereof by striving for a ‘blue ocean strategy’.

Inspired by Frambach et al. (2003), and using Billerud’s own references to ‘cost’ and ‘differentiation’, Porter’s classification of strategies (Porter, 1985; Porter, 1996) sets the frame. Secondly, Kim and Mauborgne’s (2005) concept of ‘blue oceans’, defying Porter’s choice between cost leadership and differentiation (also referred to by members of the management team in Billerud), serves as a divide or merging intention between the two. Thirdly, activities and capabilities enabled and desired in order to combine the intended *world class process efficiency* with *customer focused development* are listed. These are inspired by the suggested scope of ambidextrous organisations – and the characteristics of exploitative and explorative businesses (O’Reilly & Tushman, 2004; Tushman & O’Reilly, 1996).

Figure 5.4. A conceptual framework of strategic change: A proposed landscape derived from Paper II.



Positioning competing paradigms in strategy and management on the same map naturally simplifies the respective theories. For example, equating a strategy of ‘cost’ (Porter, 1985) with what O’Reilly and Tushman (2004) refer to as an ‘exploitative business’, and ‘differentiation’ to ‘explorative’ may be questioned as these are not necessarily the same thing. However, the point here is to illustrate guiding notions in theory from the perspective of practice conceiving the empirically experienced differences in strategic intents, and the consequences for realising and managing the intended move, from one end towards the other, from cost towards differentiation or aiming to combine both. In an attempt to describe the inherent nature of the two

competing and merging strategic intents, as perceived from practice, the differences in orientation, competence, culture, etc., are illustrated to indicate the potential challenges of linking 'customer orientation' and 'innovation' (from the perspective of 'differentiation') when originating from the perspective of 'cost'. In this particular case it is thus suggested that these associations between cost and exploitative characteristics, differentiation and explorative characteristics, are relevant. Hence, while the framework does not allow for smooth logic, it does allow for illustrating the duality and the intention on an aggregated level (i.e. the core activities and capabilities, culture, structure, etc., are plotted as a group representing cost and differentiation respectively, and are not plotted in any hierarchy).

The proposed framework challenges the impossible in Porter's (1996) view, but confirms the view of Kim and Mauborgne (2005) who discard the fundamental tenet of conventional strategy that a trade-off is needed – albeit not explicated by them as in the proposed framework in Figure 5.4. At the same time, the journey in practice emphasises the notions of ambidexterity: the ability to exploit and explore at the same time (O'Reilly & Tushman, 2004). In the words of one senior manager: "This learning process we have entered is so multifaceted. It's about everything from our [administrative] systems to how we communicate, how we should be organised, our control system and performance measures, about incentives for sales people; all this is part of the journey that we are on. And what may seem very logical on the surface, and heading the same direction that we are, is not trivial". Given the suggested prerequisites (illustrated in the framework) for enabling a dual strategy, the challenge is, if not impossible as suggested by Porter (1996), at the least a cognitive one. It hinges on cognitive barriers, a 'dual mind-set' and the dichotomy of knowing and doing (Normann, 2001; O'Reilly & Tushman, 2004; Pfeffer & Sutton, 2000).

When Billerud emphasised the concepts of market and customer orientation and new product development in 2004, one of the challenges identified in the initial stages of the research was that of a dominant perspective: a strong production orientated culture. In the continued research inquiry the term 'back-selling' surfaced, connected to approaching customers' customers; a deeply rooted taboo which in turn was challenged by management. Managing what was described as the ring fight between a 'productivity focus' versus a 'customer-sales focus' – representing the two different fields in the framework – created a need for another approach and timeframe for implementation than the ones initially foreseen: "...in the beginning we thought we had a plan, an action plan. But it was not like that. You need to develop that by yourself. You need to have the competence" (Senior Manager). In summarising decisions, actions and events in Billerud over the years, an approach to implementing emerged which was far from linear and sequential, or as efficient as had been foreseen (Paper II, chapter 4).

The empirical findings were further interpreted based on the proposed framework in an attempt to explain Billerud's emerging iterative implementation and learning approach for enabling strategic change. An illustration is put forward (Paper II, Figure 2) that leans on suggestions by Homburg and Pflesser (2000). It acknowledges a cultural view of market orientation, and Brown et al.'s (1989) notions on 'situated cognition and cultures for learning'. Based on Brown et al.'s constructs of 'concept', 'activity' and 'tool', it is suggested in Paper II that one can view strategy as a tool (concept) – in this particular case in relation to customer orientation and innovation. The tool can only be fully developed and understood through implementation (real work activity) in turn influenced by, and influencing the organisation's culture/s (culture).

In conclusion, two propositions are put forward for future research and practical guidance for managers when formulating and implementing strategic change:

Proposition 1: For an organisation going through strategic change, a prerequisite to enable a transition is understanding the assumptions behind different strategic intents and the link between a chosen strategy and critical core activities, capabilities and culture.

Proposition 2: Strategic change is enabled through an iterative and probing approach between formulation and implementation that considers knowledge and learning of new concepts, activity and culture as being situated.

Based on the Billerud case study results, the first proposition suggests that conceiving a move towards increased 'customer orientation' and 'innovation' on a more granular level would facilitate a transition. However, since this may not enable a transition in itself the second proposition suggests that conceiving also requires doing, implying that these are inherently intertwined. This is in line with the processual paradigm of strategy (see e.g. Whittington, 1997). In the case of Billerud, it is argued that the strategic change (i.e. as illustrated in the framework in Figure 5.4) was not conceived at the outset, hence the identified challenges (Paper I), but was enabled through an iterative and probing approach that brought to the surface processual and cultural aspects of strategy formulation and implementation. Beyond the structural changes of the organisation, the following enabled the emergent change over the years: management's support for risk-taking, identified flexibility in the production process for test drives of new materials, and developing the concept of innovation. Given the identified cognitive challenge, and emerging process of strategic change, the role of language in providing new meaning to concepts, tasks and capabilities is highlighted as an area of interest for continued research.

Reflecting on the findings with the management team

Further food for thought was gained by discussing the propositions and related issues with three members of the senior management team during a feedback session towards the end of the empirical inquiry.

The members found it easy to agree with the first proposition but underlined that this is not always the case in forethought. Much analysis had preceded the revision and development of the strategy in 2006, but the different assumptions and relationships between the strategic intentions and the company's cultures (existing and desired) had not been conceived for example. This manifested itself in the ring fight between a 'productivity focus' and a 'customer-sales focus'. This indicates that underlying assumptions of existing and intended strategies and particularly cultural aspects are not given parameters that are accounted for in strategy development and implementation processes but rather emerge.

The second proposition was found to be the most interesting but perceived as difficult to grasp. While knowledge and learning may be identified as situated in retrospect, having emerged over time, the managerial balancing act of the implied iterative approach put the light on paradoxes on many levels. In the discussion, the members reflected on 'how to make strategy and culture go hand in hand', the differences between 'plans and practice', exemplifying how consultant models might be good for intellectual exercise but hard to implement whilst at the same time arguing the perceived demand for clear plans and structures from the organisation. An interesting comment made by the members of the managing team was how limited time is set off for reflection. A comment which was repeated more than once.

The reflections from Billerud's management team led to a further analysis of the tensions and issues in relation to the meaning of dual strategies and managerial consequence of strategic change. The results are presented in Paper III.

5.4 Dealing with duality over time

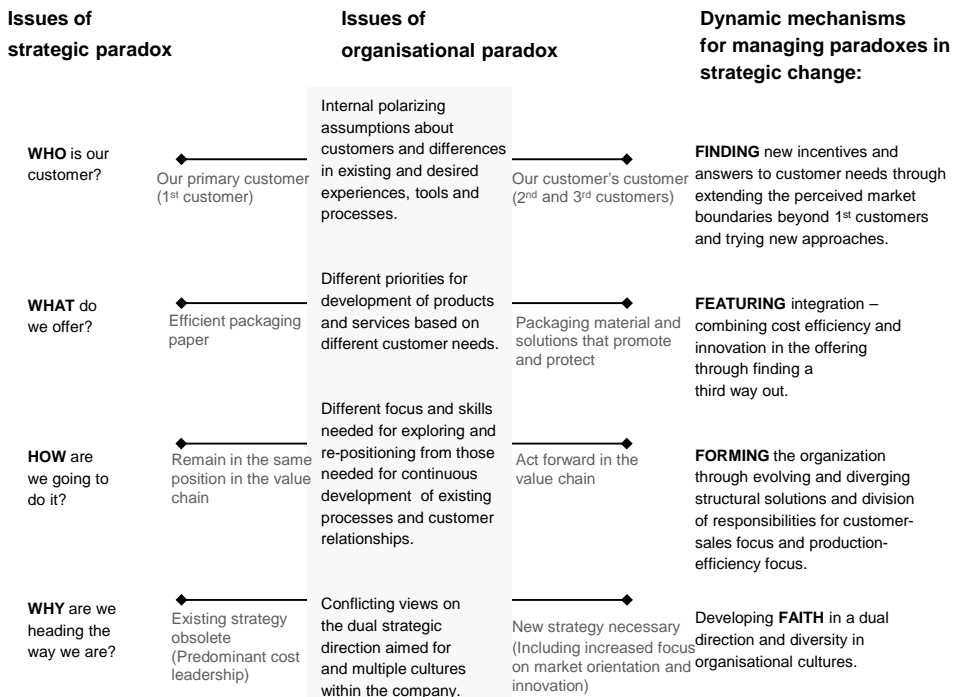
In the literature, a seemingly conflicting development of strategy and organisational renewal (in practice) is often framed as the strategy and management of paradox or ambidexterity. This means a rejection of the traditional trade-offs suggested in strategy, but not of the ability to explore and exploit at the same time (See e.g.;Magnusson & Martini, 2008; March, 1991; O'Reilly & Tushman, 2004; Sarkees & Hulland, 2009; Smith et al., 2010). Reflecting on the empirical findings in relation to the literature raised questions on dealing with duality and paradoxes over time, and the potential differences between paradoxes on the strategic and organisation level and on solutions beyond the (organisation) structural solutions, which are predominately suggested in the literature (O'Reilly & Tushman, 2004).

5.4.1 Paper III. The Road to Paradoxical Strategy: Lessons from Strategic Change in the Paper Packaging Industry

Paper III describes and analyses issues of paradox in strategic change and explores how these are managed within an organisation upstream in the value chain. The rationale for doing this was the limited amount of research that addresses paradox and ambidexterity in the strategic management literature (albeit present in other related fields), and the equally limited number of longitudinal studies. Taking Markides' three questions on strategic renewal as the point of departure (Markides, 1997; Markides, 2001; Markides, 2004), the empirical findings were examined anew asking: How does an organisation upstream in the value chain go about renewing and implementing the answers to the strategic questions of *who*, *what* and *how*? What paradoxes arise in this renewal and how are they managed?

Billerud's decision in 2004 to increase market orientation opened up for more than one answer to *who* to target, *what* to offer and *how* to go about it, as put by one senior manager: "I mean the whole theory, the economic, financial base in this industry motivates a development towards large-scale operations, volumes and market dominance and all that. And that is hard to argue with. Theoretically. But in practice it is becoming a disaster. It does not work anymore". The findings show that even though Billerud had established a niche position, enabled by the size and processes (for selected segments) of the founding mills, their history in larger corporations (AssiDomän and Stora Enso) had been shaped by another, more cost oriented view of strategy. Subsequently, paradoxes appeared not only on the level of strategy but also in managing the intended strategic change towards increased customer orientation and innovation. In analysing the empirical findings, two levels of duality and paradox were identified: a strategic level and an organisational level. In recognising how these two levels were dealt over time, four distinct mechanisms are suggested: Finding, Featuring, Forming and Faith (Figure 5.5).

Figure 5.5. Dynamic mechanisms for managing issues of strategic and organisational paradox in strategic change derived from Paper III.



Finding refers to the strategic question of *who* and related issues of organisational paradox. The decision to extend the boundaries by approaching Billerud’s second and third customers as suggested in the strategy literature (See e.g. Kim & Mauborgne, 2005; Normann, 2001) opened up for more than one answer. The decision also exposed polarising assumptions about customers based on existing experiences, tools and processes and views such as ‘back-selling’ in relation to the desired. However, through (management’s) continued support for the decision, and a trial and error approach, new incentives and answers to customer needs were found and welcomed by the primary customer (i.e. converters), also receiving greater acceptance in the organisation. While seeing the converter as the primary customer, brand owners and retailers were approached for market learning but also, over time, have become the target group for know-how and solution-oriented development projects directly or via the converter. Hence *Finding* illustrates a dynamic (ongoing) mechanism for more than one answer to ‘Who is our customer?’ in order to find competitive advantage (strategic paradox), and a probing approach that identifies and addresses internal differences and needs (organisational paradox). “We have to increase the value of our products. How do we do that? We cannot just raise the price. We have to find that added values. We have to look through the value chain to find what and where these

can be, and then start searching. A bit like learning by doing. In retrospect it has been both good luck and skill” (Senior Manager).

Forming, refers to the strategic question of *how* to play the game or how to go about offering what to whom (Markides 2001) and the related organisational issues. For Billerud, the how question in a strict sense was to remain in the same position in the value chain, not opening up for more than one answer (as is the case for the who and the what questions), whilst at the same time possibly being the ultimate source of the strategic paradox itself. Whilst the decision was to not integrate forward by acquiring converting capacity, there was a decision to explore beyond the current supply and value chain boundaries for increased market learning and new product development. This manifested itself in issues or organisational paradox, polarising different focus and skills needed for exploring and repositioning than those needed for continuous development of existing processes and customer relationships. Forming the organisation by trying different solutions allowed for structural ambidexterity. These solutions included starting out with cross-functional segment teams in 2004, changing to business areas in 2006 and clarifying the responsibility for the customer sales focus and production efficiency. While diverging structural solutions that are commonly suggested in the literature (See e.g. O'Reilly & Tushman, 2004; Smith et al., 2010) have contributed to dealing with the organisational and strategic paradoxes, these also created further tension between the “organic, decentralised” business areas closely tied to the headquarters, and the continued exploitation of existing products in the more “hierarchically structured” paper mills that was not foreseen.

Featuring captures the *what* question, meaning the company’s offering of new products and services, and the related organisational issues in terms of priorities for development based on different customer needs. In the search for added value beyond making cost-effective and efficient packaging material, Billerud’s aspiration grew to not only be a good supplier but a proactive leader in the future development of paper packaging materials and solutions. In channelling existing and new competence in new offerings while working to increase efficiency, Billerud’s journey is not only understood through the lenses of ambidexterity (i.e. balancing exploration and exploitation) but also through the lenses of value configuration or value innovation, to paraphrase Normann (2001) and Kim and Mauborgne (2005). Buyer value is “lifted by raising and creating elements the industry has never offered” (ibid., p. 16). Between 2007 and 2009 a number of new service and packaging concepts and collaboration projects were launched. One example is Billerud FibreForm®, based on a patent-protected method which enables new ways of shaping paper without adding extra chemicals. The resulting thermo formable packaging paper challenges existing plastic packaging material for different consumer products and is suitable for traditional (existing) food packaging machines. Another example is the formation of the design and consultancy company, *Nine TPP*, and the different laboratories set up to enhance product development and know-how amongst second customers and

collaboration partners (see more in Table 5.1). Paper III further argues that *featuring* should also be seen in the light of merging perspective and capabilities inherent in different strategic intents, captured through ‘sustainability’. Where the paper packaging industry previously had not been able to capitalise on this growing trend, in spite of its environmentally friendly material (Jönson, 2001) and increasingly sustainable production processes, Billerud took a number of initiatives. In 2009 the company signed the *UN’s Global Compact*, introduced *Global Reporting Initiative* reporting, and established a new concept called *Sustainable Packaging Solution* “...which also become a slogan for all of Billerud” according to one senior manager. Capitalising on sustainability creates, implicitly, a synergy between cost leadership and Billerud’s focus on ‘world class process efficiency’ on the one hand, and differentiation and ‘customer focused development’ on the other. In so doing, Billerud embraced a strategic paradox (offering both efficient packaging paper and materials and solutions that promote and protect) operationalised through the offering (integrating competence and priorities found in production and customer focused processes). Coming from a position upstream in the packaging value chain, (production) costs have always been a target for reduction even though continuous measures are taken to provide for ‘world class process efficiency’. Hence costs are not necessarily “...reduced further as scale economies kick in...” (Kim & Mauborgne, 2005, p. 16) and cost savings are not only made by “...eliminating and reducing the factors an industry competes on” (ibid., p. 16), but also by providing offerings which substantially reduce the costs for second and third customers. Featuring through sustainability and considering the different parameters for decreasing costs and adding value, can thus be viewed as a dynamic (ongoing) mechanism for integration, offering a “a third way out” (Janssens & Steyaert, 1999) that integrates the paradoxes on strategic and organisational levels.

The last mechanism, *Faith*, refers to a fourth question, *why*, which was added to the framework. It captures dealing with the strategic paradox of ‘why are we heading the way we are’ balancing the existing strategy – ‘the way we have always done things’ – with believing and creating trust in the new dual direction aimed for. It also captures efforts to balance the internal diversity of organisational cultures, as expressed by one senior manager: “Other organisations struggle to build a culture. We have very strong cultures in the local mills. The challenge has been to aim them in the same direction”. After revising the strategy in 2006, management’s intention was to work towards ‘one Billerud’ which was dropped in favour of ‘tight-loose aspects’ of culture with broadly shared values and norms. This allowed for variations in expression and local interpretation in line with the suggestions of Tushman and O’Reilly (1996).

In conclusion, as illustrated and suggested in Figure 5.5, a multifaceted picture of dealing with paradoxes over time emerges in relation to strategy and strategic choices (the content of strategy), and in relation to the organisational issues identified. Paper III suggests that in seeing how these paradoxes interacted over time, the term

‘paradoxical’ can be interpreted as different levels of strategy development, implementation and management rather than being about “...multiple strategies that are contradictory yet interrelated” as suggested by Smith et al. (2010; p.450). Furthermore, this suggests solutions beyond the previously stressed structural ambidexterity, which here is identified as one only of four suggested dynamic mechanisms (Forming).

Structural measures such as *Forming* (i.e. organisational ambidexterity) are argued to be important to enable exploitation, exploration, integration and value innovation by combining cost efficiency and innovation in the offering. However, *Featuring* and managing an extension of the company boundaries through *Finding* stand out as prerequisites for paradoxical strategies to thrive. This requires *Faith*, both in the direction aimed for and the cultural aspects inherent in the organisation (i.e. values, norms) and those embedded in the new ‘market orientation’ and ‘innovation’ desired. In conclusion, Paper III argues that even though organisational ambidexterity and strategic paradox may be inherently intertwined, the interrelated tensions and solution have thus far not been addressed coherently in empirical studies.

5.5 Measures of strategic change

Coming to the end of a longitudinal empirical inquiry of strategic change raises the question how change can be measured. Given the different schools of thought on strategy and strategic change (see e.g. Dufour & Steane, 2006; Whittington, 1997), there are different suggestions in terms of the achievement and discrepancy between stated intentions and outcomes. Financial or related measures of firm performance and ‘profit maximisation’ are the most apparent, based on the rational assumptions underlying dominant theory on strategy and business practice. Along these lines, Billerud reached their financial targets of operating margin for the first time in 2010 since the objectives were renewed and strategy revised in 2006, coincidentally at the end of the empirical inquiry. When Billerud presented the annual report and results for 2010, the press release contained the following message: “I [CEO, Billerud] am happy, pleased and impressed by our performance during 2010. ... For the full-year 2010 the Group achieved, for the first time since our financial targets were set in 2006, an operating margin of 12%, well above our 10% target over a business cycle. Demand for our products showed a very strong increase during the year, and we can see that our focused approach has achieved results...” (Billerud, 2011b). While the time for reaching the targets might have taken longer than desired, they were reached.

However, studying the financial development over the years (see Table 3.2) begged further questions on relevant measures of strategic change. Billerud was listed in November 2001 on the Stockholm Exchange (Large Cap list of NASDAQ OMX) starting out at SEK 55 per share. Closing 2006, the share price was above SEK 120 while the same figure was below SEK 60 at the end of 2010. Billerud’s yearly turnover

between 2004 and 2010 indicated limited growth. The operating margin in 2010, although in line with the company's financial targets, can be interpreted as a result of a continuous and fluctuating pattern, similar to other actors in the industry. At the same time there is no knowing what those figures would have been, based on an alternative strategy.

This longitudinal case study has yielded more questions and answers on how success and change can be measured. For innovation, Tidd et al. (1997) suggest measures beyond overall financial performance such as number of new products and ideas. Identifying Billerud's new products, services and other customer oriented and innovative launches and initiatives yields a more comprehensive picture as summarised in Table 5.1. The years up until 2006 show limited development towards increased market orientation and innovation, meaning that the products launched were traditional and incremental in the improvements of paper quality: lowered 'grammage per square meter', etc. From 2007 onwards, there have been launches of products, services and initiatives demonstrating a new burgeoning approach, targeting and co-operating with second customers and focused on the parameters of customer value and setting of new standards.

Table 5.1. Examples of new products, services and initiatives by Billerud 2004 to 2010.

Year	New products, services and initiatives
2004	Product: Billerud Flute 99g/m ² . A lower-weight fluting quality.
2005	Product: Quickfill Single, highly porous single-ply sack paper with lowered grammages (110-120 g/m ²) and material consumption. Product: White coated liner, a new product in the Billerud White Liner Collection with high printability and lowered grammage. Product: Billerud Flute, next generation of S/C fluting with 20% improved technical performance and runnability.
2006	-
2007	Product/co-operation: MicroWavePac. In co-operation with Alcan Packaging, Billerud developed a new packaging paper specially designed for frozen food that is heated in a microwave oven. Service: Billerud Box Lab, knowledge and service centre (Gruvön Mill). Billerud the first papermaker in the world with its own development centre for packaging for fresh produce goods. Business initiative: <i>Nine TPP</i> , a packaging consultancy company formed in co-operation with the design company <i>No Picnic</i> .
2008	Service: Billerud Sack Lab, knowledge and service centre (Karlsborg). Development alliance: To optimise transport packaging for fruit and vegetables in alliance with Swedish Everfresh.

2009	<p>Product: Billerud Pure Board, an addition to the product range of paper packaging for drinks and liquid food. A white board meeting strict hygiene requirements to make paper cups.</p> <p>Product: Billerud FibreForm, a thermoformable packaging paper with unique elasticity and formability challenging plastic in new areas.</p> <p>Manufacturing partnership/alliance: Partnership with Rigesa of Brazil, a leading producer of corrugated boxes for fruit and vegetables on expanding markets, for production of corrugated boxes using Billerud Flute.</p> <p>Business acquisition: Billerud acquires Swedish Tenova Bioplastics to strengthen know-how in renewable packaging made of bioplastic</p>
2010	<p>Product: New sack concepts launched QuickFill BioTex, Billerud's QuickFill® integrating paper and bioplastics based on brand owner's demand for high productivity combined with moisture protection, long shelf-life, attractive design and compostability.</p>

While the rational and classical approaches to strategy build on efficiency and achievement of objectives of (financial) profit maximisation, the processual or political approach (see e.g. Dufour & Steane, 2006; Whittington, 1997) acknowledge pluralistic outcomes (i.e. other than profit max). Through these perspectives on strategy, other ways of measuring strategic change towards increased market orientation and innovation can be argued for. For example, Homburg and Pflesser (2000) state the importance of market oriented cultural artefacts (e.g. customer focused language) as an important prerequisite for translating new norms for market orientation to actual market oriented behaviours (i.e. market intelligence generation, dissemination and responsiveness). Language and the use of words and narratives are important means in a socially constructed context, given a focus on processes of pragmatic bargaining of ideas and resources, and dialogue for creating and understanding new meaning as advocated by representatives of the processual approach. Throughout the empirical inquiry different expressions of the emphasised focus on customer orientation and innovation have been identified and reported in the appended papers. Table 5.2 summarises some of these expressions, drawn from the in-depth interviews in 2004 and 2010. They demonstrate a fairly substantial shift from non-customer focused language to a more market oriented language in support of new market oriented behaviour.

Table 5.2. Examples of typical expressions about customers and innovation drawn from interviews

Year	Expressions about product development and innovation
2004	“We are to launch X number of products each year but I do not know what defines a new product”.
2010	“We get innovation from interacting with our customers (i.e. beyond first customers). That is how it has to be. Innovation goes beyond product development; it is all about how we create customer loyalty, which business models we have, which products we develop and sell. That is the whole palette”.
	Expressions about customers and market orientation
2004	“Focusing on second customers rather than our existing customers – are we really to invest energy in this?”
2010	“We talk only about customers today; no customer is wrong. We talk about business, innovation, and development. We talk about volume and production to a much lesser extent, almost not at all”.

Given the different possible interpretations of the success or failure of strategic change, particularly acknowledging the cultural perspective and the impact of artefacts such as language, led to further exploration of how strategic change could be measured. This reasoning was further elaborated through a quantitative study of Billerud’s corporate communication from the start in 2001 to 2010, reported in Paper IV.

5.5.1 Paper IV. Strategic Change: A Journey Towards New Meaning?

Paper IV hypothesises that as a strategic change process progresses, a new language is used and developed not only in lexical terms (new vocabulary) but also in semantic terms (the inherent meaning of words and narratives). The paper is based on the notion that strategic change requires cognitive change where communication (use of language) is vital.

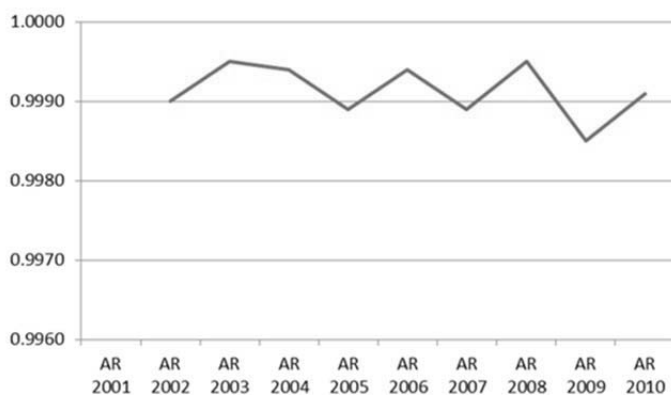
The paper leans on the references in the literature on how forming new ‘dominating ideas’, or changing mental models underlying the strategy paradigm of an organisation is referred to as a cognitive challenge (Jacobs & Heracleous, 2005; Markides, 1997; Normann, 2001). The antidote being communication, argued to be of utmost importance in the formulation and implementation of strategy and strategic change (Higgins & Mcallaster, 2004; Porter, 1996; Quinn, 1996; Simons, 1995) both in terms of manipulation and control, and for creating new meaning and practice (Brown et al., 1989; Hartelius & Browning, 2008; Rogers, Gunesekera, & Yang, 2011). Given the importance of language as a tool for communicating strategy or a new strategic direction, Paper IV address the question of how language, and more specifically the semantic content in an organisation’s written, corporate communication, can shed light on the understanding of a strategic change process.

The paper explores the development of language by applying a quantitative method for measuring semantics: latent semantic analysis (LSA) (see e.g. Landauer, 1998; Landauer & Dumais, 1997). The aim was twofold: Firstly, to propose a method, LSA, for the quantitative analysis of the semantic content of texts (corporate communication) and statistically test the semantic development over time. Secondly, to evaluate and discuss the results of the quantitative semantic analysis in relation to the qualitative findings. Applying a quantitative method is further motivated by the objective to take a different route from the thus far predominant qualitative analysis of corporate communication in relation to strategy and management.

The content of ten annual reports and 194 press releases between 2001 and 2010 were quantified and measured for semantic similarity. In addition, significant keywords across the years were identified. The method (described in Paper IV) enabled the statistical analysis of changes in semantic content across the ten year period. By quantifying the semantic content of annual reports and press releases, the semantic development was statistically tested with significant results, indicating a change in the inherent meaning of words and narratives.

One example is shown in Figure 5.6, illustrating changes in semantic content across consecutive years through measuring semantic similarity scores (s) of annual reports. The results show a higher semantic similarity between 2002-2003 ($s=0.9995$) and 2007-2008 ($s=0.9995$), and lower similarity between 2004-2005 ($s=0.9989$) and 2006-2007 ($s=0.9989$). The lowest similarity score is between 2008 and 2009 ($s=0.9985$). The lower the score, the bigger the difference in semantic content; in the aggregated and inherent meaning of words and narratives

Figure 5.6. Semantic similarity scores (s) of consecutive years, annual reports (AR) 2001-2010 derived from Paper IV.



The results provide interesting comparison in relation to the findings from the empirical inquiry given the development, events and actions, over the studied years.

In summary the results show a gradual change in semantic content from one year to the other based on the texts communicated in annual reports. This can be interpreted as a continuous or incremental strategic change which corresponds to the findings of the empirical inquiry. At the same time, measuring the significant keywords over time, based on the semantic representation of annual reports (i.e. not only based on frequency count) indicated changes from contexts in 2001 dominated by words like 'turnover', 'investments', 'segments', 'tonnes' and 'production'. In 2010 these were represented by words like 'packaging', 'solutions', and 'sustainable'. Although this development may appear limited, or evolutionary, it should be interpreted in relation to the industry at hand.

In summary, the central findings show that by quantifying the semantic content of the annual reports and press releases it is possible to examine and statistically evaluate the semantic development, with several significant results. Having used LSA for the first time in this particular setting and study of strategic change, the results demonstrate that it can be a helpful method in further analysing and contrasting qualitative findings in case study research. It can also serve as a starting point for a longitudinal qualitative study, providing indications of variations to examine both on an aggregated level, and in relation to specific keywords. Given the explorative nature and limitations of the study, the novel application of LSA in a similar setting, further research is suggested with the view to contribute to a potential complementary measure of strategic change. Other types of communication/language artefacts can be further explored. Furthermore, comparing the results of the LSA conducted here, with the previous qualitative findings, raise the question whether these artefacts of corporate communication communicate implemented change (i.e. the semantic content is an effect of a strategic change) or if they influence change explicitly (aimed communication) or implicitly (through communication that might be legally required).

From the perspective of learning and cognition (Argyris, 1989; Brown et al., 1989), a measure of the semantic development over time may be an indicator of whether an organisation learns and adopts a new intended strategy and its prerequisites or inherent characteristics such as market oriented language, or just "learns about it". While financial results will unquestionably remain important measures of firm performance, other measures of for example the semantic development may provide complementary indicators of strategic, cognitive change.

5.6 Summarising a strategic change journey

The findings presented here and in the appended papers aims to contribute to an increased understanding of strategic change towards increased customer orientation and innovation. In summarising Billerud's journey the following can be concluded:

Aiming for increased customer orientation (beyond first customers) and innovative product development in the paper packaging industry is a challenging feat:

Challenges can be found in the actual tools and processes for market learning and new product development, or, the lack thereof. The challenge is also related to the underlying assumptions guiding the current strategy of a firm which, if these do not support the intended strategy, in turn challenges the way strategy is implemented and further developed. The biggest challenge may be not conceiving the link between strategy, customer orientation and new product development and innovation.

Moving towards a new strategic direction increases the magnitude of strategic change towards duality:

To increase customer orientation and innovation when coming from a strategy predominately formed by cost leadership, suggests a complex and dual landscape for strategic change with seemingly incommensurable strategic intents, focus, tasks and culture. The resulting process for implementation is less that of the intended plan and more of an emerging, iterative and situated approach towards increased customer orientation and innovative product and service development where risk taking, learning by doing, and flexibility are important measures. These are measures and ways of working that are not synonymous with the industry, albeit central ingredients in the journey studied here.

Dealing with duality over time requires management of paradoxes on a strategic and organisational level:

Dealing with strategic change and a dual intent, surface issues of paradox on both a strategic and an organisational level. These are managed through four very different and dynamic mechanisms: Finding, Featuring, Forming and Faith. These go beyond the previously stressed structural ambidexterity (i.e. diverging organisational structures) for dealing with new directions in large, mature organisations. Integration and value innovation can be achieved by integrating drivers and inherent perspectives of cost and differentiation in the offering (Featuring). Finding new incentives and managing an extension of the company's supply/value chain boundaries may be prerequisites for dual strategies to thrive. Having Faith in the direction aimed for, however, may be the most important prerequisite.

A change in language, measured through the semantic development over time, can be an important indicator of strategic change:

Given that strategic change requires cognitive change and that market oriented behaviour is influenced by customer focused language, the semantic development over time may be an important indicator. Measuring changes in the inherent meaning of words and concepts can complement more traditional measures of progress. This is in line with the processual view of strategy where language and processes of communication, learning and understanding are accounted for.

6. Extended discussion and conclusions

“Where is the power and what is the point?”

(Unknown)

6.1 Introduction

The Swedish forest and paper packaging industry has over recent decades found itself in a situation that in Porter’s terms has had a homogenising effect on strategy (Porter, 1996). Traditionally success has been measured in volumes and relative positions on a cost curve rather than through differentiated customer value and innovative solution. In 2004 Billerud started challenging what had become the industry’s reigning paradigm by reaching for new value and alternative solutions through putting an emphasis on customer orientation and innovation.

So *how* does an organisation in the paper packaging industry embrace a new direction?

To begin with, there may be a few hurdles.

These could be caused by a lack of relevant tools and processes for market learning and product development, a lack of experience in working with actors outside the company and difficulties in welcoming new ideas. The challenge may be the way strategy is formulated and/or implemented – wanting ‘differentiation’ but supporting ‘cost’. Or, the challenge may simply be that of being a ‘high-tech, capital, time and energy intensive process industry’ where customer orientation (beyond the primary customer) is a questionable endeavour altogether.

To continue, the scenery might be frightening and the road bumpy.

Surpassing the initial hurdles unveils a landscape of strategic change consisting of dual and paradoxical strategic intents with seemingly incommensurable competencies, tasks and beliefs. Then, the way to get through the terrain is not by help of a map, or the initial plan, but through a strenuous and iterative approach where tensions have to co-exist. All in the hope that one day there will be some solution that integrates the pressures and parts to a whole again through new competitive offerings of new packaging material and solutions to the market. This will, by all accounts, take at least three times longer than planned.

To finish, the rewards may appear limited.

At the end of the day one may have achieved little financial progress and cognitive change, requiring additional resources, time and faith, for strategic change to really materialise.

So what is the point?

To quote one of the experts in the forest industry: “In a dynamic and deregulated capitalism there are two risks: the risk of investing in the ‘new’ and the risk of being out-competed by continuing to invest in the ‘old’” (Ottosson, 2008, p. 27).

Interlude

This thesis aims to contribute to an increased understanding of strategic change towards increased customer orientation and innovation in mature industries like the forest and paper packaging industry. The research questions serve to answer how an organisation goes about achieving this change; what the challenges may be and how change is facilitated.

In exploring and describing Billerud’s journey, I have illustrated how one organisation went about a new strategic direction to this end and exposed challenges. I have suggested how these challenges can be managed and introduced a quantitative method for analysing the semantic development over time as a complementary indicator of strategic, cognitive change. Below, I take the discussion one step further in relation to the findings and the evolved theoretical frame of reference, and finally draw some conclusions.

6.2 Seeing the forest for all the trees: conceiving the link and the landscape

Strategic change can be defined and manifested along several dimensions in terms of what (the content of change) and how change takes place. In 2004 Billerud set out to increase their market and customer orientation aspiring to differentiate themselves in the industry. The scope of the supply chain was extended beyond the first customer and the organisational structure was adapted. The overall objective was to improve earnings growth through new products and offerings of efficient packaging solutions based on Billerud’s extensive knowledge of packaging paper.

In the initial phases of the empirical inquiry, a number of challenges to this aim were identified (Paper I). Beyond the recognised lack of tools and processes for market learning and new product development, the conflicting views on the company’s strategy and strategic decisions gave rise to questions on the relationship between market and customer orientation, new product development and strategy. While this relationship may appear generic it has, as mentioned, received limited attention in research (Frambach et al., 2003).

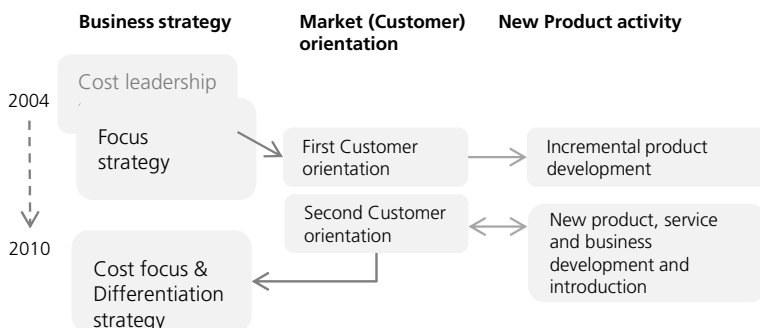
Given Frambach et al.'s suggestions on the link between a 'business strategy', 'market orientation' and 'new product activity' (see Figure 4.2) it could be argued that Billerud's intended differentiation should have led to increased customer orientation and product activity. It did not, initially. This can be understood through identifying the underlying and guiding strategic paradigm guiding the firm. Given the history of the founding mills and the industry, Billerud's strategy has throughout the study been referred to as a strategy and perspective based on cost leadership (as opposed to differentiated). However it can also be categorized as a focus strategy (see e.g. Porter 1980, Frambach et al. 2003) targeting selected niche segments. Leaning on the findings by Frambach et al. (2003), neither cost leadership nor focus, enhances customer orientation or new product activity. Nevertheless Billerud's intended differentiation, has led to an increased customer orientation (from first to second customers) and the development of new services, businesses and collaboration projects beyond the primary customers. These findings suggest, in support of Frambach et al. (2003), that market orientation, and more specifically an extended scope of the customer orientation, influence new product activity. However, the findings also suggest a different relationship of the link with strategy than the one posited by Frambach et al (2003) which is of relevance for managing strategic change. While Frambach et al. posit a link leading from strategy, directly or via market orientation, to new product activity (i.e. business strategy influences product development via its influence on market orientation), the cultural view of market orientation (i.e. the level of market orientation influences strategy and new product activity) offers a better explanation to the challenges identified.

Taking the cultural view on market orientation as suggested by Homburg and Pflesser (2000) acknowledges the inherent values, norms, artefacts and behaviours manifest in Billerud in 2004 and the following years. One of the challenges to implementing the intended strategy was that of a dominant, internally focused and production orientated perspective (see paper I). This perspective was formed by another way of competing that supported cost and production efficiency and high quality deliveries to first customers (i.e. converters). As a consequence, the product development was incremental and focused on price, process efficiency and runnability in converting machines (see Table 5.1 between 2004 and 2006). Approaching the customers' customers – the end users – was referred to as 'back-selling' (Paper II). Persisting in the direction aimed for, the management team revised the strategy anew in 2006, restructured the organisation into business areas to further clarify the responsibilities between these, and the mills. This was coupled with broad-based HR initiatives such as leadership training in the whole organisation and continued development of market and value chain know-how carried out in the respective business areas. While these recognised measures have contributed to the development, other actions have been identified as more integral in altering the deep-seated notion of 'back-selling', and addressing values inherent in the "ring fight between operational excellence and

customer development” (Paper II). In summary the findings suggest that Billerud’s strategic change towards a burgeoning dual intent, is the result of a deliberately albeit iteratively altered customer orientation from first to second customer, influenced mainly by challenging current assumptions inherent in the values of the customer approach (i.e. ‘back-selling’) rather than the strategy per se. This manifested itself through internal discussions, a continuously ‘nagging’ about the focus on customers (internally and externally) coupled with a ‘just do it’ approach which supported behaviours of risk-taking and learning-by-doing.

Given the findings from the empirical inquiry I argue that market (customer) orientation precedes business strategy and new product development, suggesting also that strategy is as much a perspective as a position. This suggestion is furthermore built on studying this three-part link over time, where an important point is the difficulty of defining what strategy actually is, as is postulating clear causal links. Figure 6.1 attempts to illustrate the iterative development and link between market (customer) orientation, business strategy, new product activity and innovation in the case of Billerud. This shows that Billeruds intended and communicated strategy in 2004 led foremost to maintaining a first customer orientation and incremental rather than new product development in spite of objectives and delegated organisational responsibilities. It also suggests that the extended focus on, and experiences with customers’ customers (second customers), over time has led to new services and collaboration projects beyond the primary customers, and subsequently influenced the development of ‘strategy’. Again, suggesting an iterative rather than causal order. Nevertheless I argue that conceiving this link is of relevance in a similar strategic change. This is not least important for understanding how these three central ingredients (and what they encompass beyond simple definitions) may interplay, foremost with the view to identify levers for both developing and implementing strategy and change.

Figure 6.1. A proposed link between market (customer) orientation, business strategy and new product activity and innovation in the case of Billerud, developed over time.



However, while the increased customer focus and resulting ‘new product activity’ has meant renewal and innovative development through patent acquisitions (e.g. FibreForm), service development, business initiatives and acquisitions, the internal product development has been more limited. Differentiation in terms of new product development and innovation has been pursued foremost in areas which are not necessarily related to the (paper) product or production development processes per se, but rather related to the approach to the market. While the fundamental and deep-seated knowledge of paper and paper making in the organisation has been a prerequisite for the developments mentioned, there are examples indicating that the existing and potential competence in the mill has not been fully explored in the light of the new direction (see Paper III). This would suggest that extending the scope beyond first customers, enabling market learning, leads to one type of new product, service and business development aimed at creating ‘pull’. Internally driven product development for creating push is more difficult (or not prioritised). In line with recent research in the forest and paper packaging industry, the case of Billerud shows that where there is a will (and competence), there is a way (Bjorkdahl & Borjesson, 2011; Kalling, 2007). However, the way forward may be limited or not yet fully explored. These limitations may be explained by the findings of Frambach et. al (2003) which show a negative impact of focus strategies on new product activity due to scarcity of resources in niche oriented firms. While Frambach et al. suggest that this finding support a resource-based view of firms (see e.g. Wernerfelt 1984), rather than the market orientation or industrial view advocated by Porter, the findings from the study of Billerud suggest a combination of both.

~

In the emerging and dual strategic direction aimed for by Billerud, defined primarily as a combination of ‘cost’ and ‘differentiation’, this link was further explored resulting in a more comprehensive conceptual framework, or landscape suggested in Paper II (see Figure 5.4). This somewhat agnostic framework combines different schools of thought in the fields of strategy and management. It links different strategic intents of ‘cost’ and ‘differentiation’ with core activities and capabilities and further emphasises and explicates the landscape of the intended and evolving strategic change. The different parameters and concepts put forth in this landscape refer to scholars emanating from the industrial-based and resource-based views, not often referred to simultaneously. Combining them yields a more comprehensive understanding of the differences in the current and intended strategy and between new and existing capabilities in the context studied.

The literature suggests reasons for why concepts such as ‘market orientation’ and ‘innovation’ may be more or less challenging to embrace and implement in an organisation (Day, 1999; Dougherty, 1992), what capabilities are needed and how these may be built (Eisenhardt & Martin, 2000; O'Reilly & Tushman, 2004; Teece,

2007; Teece et al., 1997). The proposed link and conceptual framework, though, suggest a way of conceiving the assumptions of a current and future strategy in relation to inherent core activities and capabilities. Hence, explicating the *what* of strategy and strategic change and contributing to conceiving the process of *how* in the particular context.

The managerial consequences of this reasoning are that simply pronouncing the virtues of customer orientation or wanting to innovate because it is fashionable is not enough, to paraphrase Markides (1997) and Tidd et al. (1997). Strategy, customer orientation and new product development or innovation are loaded concepts. A transition may be facilitated by understanding the organisations' current and desired assumptions and the values underlying these concepts, separately and linked together, coupled with characteristic activities and capabilities. More important is to acknowledge that the order of influence does not necessarily begin with strategy but with the inherent values, norms and artefacts guiding current behaviour. This in turn indicates the need for other remedies than formal objectives for market learning and new product development to enable strategic change. Measures that also address the underlying values and assumptions.

6.3 Managing strategic change through unorthodox mechanisms and capabilities

The outset for this thesis was partly inductive, turned abductive by matching observations in practice with theory. Interpreting and analysing the findings has to a large extent evolved around appreciating and problematising the rational assumptions found in the dominant schools of thought in strategy in relation to other notions in strategy, and related fields, based on more pragmatic assumptions.

The identified challenges (Paper I) and the continued development at Billerud led to suggesting an iterative and situated approach to strategic change and the managing of the subsequent issues of strategic and organisational paradox through four 'mechanisms' (Papers II and III). While the emerging and iterative development of strategy formulation and implementation is well recognised in theory, the suggested managing mechanisms applied over time combine traditional levers of strategy (*i.e. Forming, Finding*) with other, less recognised mechanisms of strategic management (*i.e. Featuring and Faith*) for moving towards more comprehensive and holistic approaches to strategy suggested in the literature (Dufour & Steane, 2006; Herrmann, 2005; Pettigrew, Woodman, & Cameron, 2001). The suggestions in Paper III bear resemblance to the more recent streams in the resource-based view (RBV) referred to as 'dynamic capabilities' (Eisenhardt & Martin, 2000; Teece, 2007; Teece & Pisano, 1994), in that the suggested 'mechanisms' are concerned with *how* a

company in the paper packaging industry (formed by its historical path and particular assets) actually deals with, or manages, a similar strategic change.

Considering the findings and suggested mechanisms for managing issues of strategic and organizational paradox over time (Paper III) in relation to suggestions based on the dynamic capabilities approach, yield interesting comparisons and avenues for future research. This concern in particular the dynamic managerial and organisational processes as suggested by Teece (2007) and dynamic capabilities in relation to market dynamism, advocated by Eisenhardt and Martin (2000). However, the outset for the empirical inquiry in Paper III, as opposed to the mainstream RBV and research on dynamic capabilities, is the suggested 'mechanisms' functional relationship to the strategic and organisational paradoxes of strategic change (in particular towards increased customer orientation and innovation), and not firm performance (i.e. competitive advantage) per se.

Teece (2007) disaggregate the most crucial dynamic capabilities for competitive advantage into three capacities embedded in 'dynamic managerial and organisational processes' namely: Sensing, Seizing and Managing threats/transformation. Although the four proposed mechanisms in Paper III bear a resemblance (i.e. Finding to Sensing, Forming to Seizing, and Featuring to Managing), the empirical findings indicate that the (rational) assumptions on which this dynamic capability framework rests hamper rather than enable building new capabilities in a firm in the paper and packaging industry.

'Sensing' and 'seizing' are very similar to suggestions on behaviour oriented market orientation (see e.g. Kohli & Jaworski, 1990) and innovation management (see e.g. Tidd et al., 1997), dependent on analytical and planned managerial processes for market learning and decision-making. While these may be well argued for, there are limitations. Firstly, the synthesis of market learning remains with management: "Once a synthesis of the evidence is achieved, recurrent syntheses and updating can be embedded in business processes" (Teece, 2007, p.1323). Beyond the strong management focus, the process of embedding can be questioned. Even though Teece (2007) refers to the challenges of hierarchies and communication in less decentralised organisations, *how* this synthesis can be embedded is not further elaborated, or *why* synthesis should not be encouraged outside the realm of management. Drawing on the empirical findings from the case of Billerud, I would argue that synthesis has to be allowed on more levels than management to enable strategic change towards increased customer orientation and innovation to move beyond the challenges (see Paper II on situated cognition). The initial challenges and emerging issues of paradox point to cognitive hurdles in an organisation which are not best addressed through formal, unidirectional processes.

A second limitation is on the importance of decision making related to a manager's ability to override dysfunctional features of established decision rules and resource

allocation processes. Although Teece (2007) acknowledges the risk of biased decision making, the reliance on an analytical framework and embedded processes as suggested, do not necessarily serve as antidotes. Contrary to Teece's suggestions the empirical findings indicate that entrepreneurial activity indeed depends on individuals' cognitive and creative skills (Papers II and III), in line with findings on 'Edisons' by Beckeman (2011).

Furthermore, the three capacities suggested by Teece (2007) relate to the more generic abilities of exploration and exploitation (March, 1991). Teece argues contrary to March, who states that explore and exploit lead to tensions and paradox in competing for resources, and to differences in mind-set and organisational routines. According to Teece such tensions are easily avoided through structural solutions (in line with suggestions on ambidextrous organisations). Teece downplays the competition of resources suggesting that 'sensing' (e.g. market learning) is much less an investment (in economic terms) than 'seizing' (e.g. investment in assets or resources). Building on the empirical findings, and suggested mechanisms in Paper III, I would argue contrary to Teece that 'sensing' in the case of Billerud (framed as *Finding*) has required considerable investments in addressing cultural assumptions, developing processes for market learning and identify opportunities, and not least *Faith* in the direction aimed for. While these mechanisms are not directly measurable in economic terms they have undoubtedly competed for resources, and with different mind-sets and organisational routines in, for example, balancing the 'customer sales focus' and 'production-efficiency focus'. Hence, this indicates that there are indeed tensions and paradoxes to be considered when learning new routines, building capabilities and managing strategic change in the paper packaging industry which are not solved simply through structural solutions.

In line with the findings from the empirical inquiry, managing these capabilities in a similar situation does favour decentralisation as argued by Teece: "To sustain dynamic capabilities, decentralization must be favored because it brings top management close to new technologies, the customer and the market" (Teece, 2007, p.1335). However, the means to do so do not only imply structural solutions as suggested by Teece, or hierarchically embedded processes. Acknowledging the issues of duality and paradox in the case of Billerud, more recent suggestions from scholars in the field, emanating from both classical and processual approaches, suggest that dialogue and inquiry are important tools for strategic innovation, strategic change and a less linear approach to strategy development and implementation (See e.g. Jacobs & Heracleous, 2005; Markides, 1997; Simons, 1995; Simons, 2010; Sull, 2007). Given the issues of strategic and organisational paradox identified in Paper III, a similar dialogue on the organisation's future offering (see *Featuring*) could guide an inquiry on several levels in an organisation. This would allow for the 'synthesis' of market learning across organisationally separated areas and functions integrating existing knowledge and capabilities with new and/or desired, leading to new innovative

offering. This suggests a new dynamic capability of merging perspectives and competencies of sorts were purposeful dialogue – a seemingly simple yet unexplored ability, which may complement structural separation and more formal processes for market intelligence and innovation.

Although Newbert (2007) argues that the view on ‘dynamic capabilities’ has evolved into a dynamic recipe that explains the process by which these ingredients (i.e. resources and capabilities) must be utilised and altered to attain competitive advantage, it still rests on rational, albeit evolutionary theory in economics. From a strategic change perspective, this could be categorised as viewing an organisation as a technical system and human behaviour as largely deterministic (Dufour & Steane, 2006). Given the *raison d’être* for business, this ‘path dependency’ of rational and economic theory (to use a dynamic capability construct) is not surprising; however, it blurs the view in search for dynamic mechanisms based on other assumptions. Furthermore, given that the evolution of dynamic capabilities is based on companies and industries in high-tech and fast-moving environments, expanding the framework suggested by Teece (2007) and considering actors in other industries and positions in the supply/value chain merits more attention.

Relating the development, or learning mechanisms of dynamic capabilities to different external environments, Eisenhardt and Martin (2000) argue that the evolution of these capabilities depends on the market dynamics. Companies on moderately dynamic markets rely on existing knowledge that is managed in an orderly and linear fashion from analysis to implementation (i.e. incremental). Companies in high-velocity markets, though, rely on learning mechanisms that are highly experiential, with unpredictable outcomes and fragile processes. Even though Billerud operates far from a high velocity market, the resulting learning mechanisms (embedded in the suggested *Finding* and *Featuring*) bear more resemblance to the suggested learning mechanisms for firms on high velocity markets. Approaching second customers (i.e. learning by doing) and carrying out test drives in the mills with new materials are examples which may be generic for companies in other industries and positions in the supply- and value chain. For a company in the paper packaging industry, though, this is not common knowledge that can be managed in an ordered and linear fashion, from analysis to implementation as is normally the case for firms operating on moderately dynamic markets. This would suggest that the division of learning mechanisms may be related to an intended strategic change being reactive or proactive, as much as on the currently defined relationship with market dynamics. Hence, while ‘dynamic capabilities’ provide a good framework for understanding and explicating the very foundations of what can be managed, they do not sufficiently consider empirical settings and endeavours like that of Billerud.

Implications for practice and management are twofold: Firstly, to be aware not only of the assumptions on which strategy rests, but the different solutions as well; whether

these are found inductively in-house or through research and/or consultant practice. Enabling mechanisms or capacities for a strategic change effort may be far more unorthodox than what may be suggested. Secondly, to transcend the formal process and hierarchical practice of strategic management (in theory and practice) and consider notions on inquiry and dialogue, on and between different levels and parts of an organisation inhabited by less rational (however pragmatically more intelligent) human beings than what is advocated through dominant strategy theory.

6.4 An incremental revolution

Strategic change is regarded a fairly straightforward affair in the classical and industrial-based views (i.e. deciding, planning and implementing on rational grounds) and not referred to as either incremental or revolutionary. If anything it may be upsetting at times, seeing change as temporal or structural. Contrary to this view, advocates of the 'processual approach' argue, not surprisingly, an incremental approach to strategic change that acknowledges the challenges arising from differences in values, interests and bargaining positions (see e.g. Mintzberg & Quinn, 1992; Quinn, 1978). An incremental approach is equally argued by representatives of the resource-based view on the notion that capabilities have to be built and enabled and cannot be bought (Teece et al., 1997).

Billerud's journey has been far from straightforward, or as efficient or speedy as foreseen, and can subsequently be interpreted as incremental (Papers II and IV). While the (organisational) structural aspect was identified as an important lever in their journey, the temporal aspect was not studied per se. The journey can however be regarded as continuously incremental, far from any unfreeze-freeze patterns. Every year between 2004 and 2010 included decisions and steps with a significant impact on the company's intended change. More interestingly however, it may be regarded as simultaneously revolutionary using Hamel's term (1996). Hamel, arguing that incremental improvements are like "...fiddling while Rome burns" (ibid., p. 69), refers to "rule breakers" (i.e. revolutionaries) who "...shackled neither by convention nor by respect for precedent..." (ibid., p. 70) are intent on overturning the industrial order. He suggests ten principles for true revolutionaries. While Hamel's suggestions are based on companies, environments and situations (again) different from the Swedish forest and paper packaging industry, Billerud contributes and challenges those principles. While Billerud carried out 'non-revolutionary' strategic planning in that it could be regarded as 'elitist' and 'non-inclusive' (i.e. foremost in the hands of senior management) to paraphrase Hamel; other steps speak to the contrary. In particular, Billerud has demonstrated 'perspective' and an 'inquisitive' and 'prescient' approach; from the initial questions posed by management in 2004 to the approach to actors downstream in the supply chain, pursuing the aim of taking "a proactive lead in the development of future packaging and packaging solutions". This should also be seen

in the light of remaining true to their core of being a manufacturer and supplier of paper packaging material, not packaging per se, challenging taken for granted industry-boundaries and the particular notion of “back-selling”. However, as opposed to Hamel’s suggestion on ‘bottlenecks’ (i.e. strategy orthodoxy upheld by senior managers), the high tech, quality-rigorous and capital-intensive processes of the paper packaging industry make up not only a cognitive bottleneck, but a physical and regulated one beyond the realm of senior management. As expressed by one senior manager, “I hope we have not reached a limit for what we can do. That would be sad. I imagine that there is still a lot we can do when it comes to the physical properties of paper, that we move beyond thinking about the ways the (paper) mills are built and this is what we can do.” Hence, pursuing test drives of new materials can to an extent be seen as revolutionary. In addition, Billerud’s approach to building market learning and innovative capabilities cannot quite be described as detailed, analytic and based on stable processes with predictable outcomes, as suggested by Eisenhardt and Martin (2000) to be the evolutionary approach of firms on less dynamic markets.

Summarising Billerud’s journey in terms of an *incremental revolution*, far more time-consuming than perceived, the revolution lies foremost in challenging internal and external assumptions on the industry’s boundaries and future of the offering: the paper packaging material and solutions. The revolution does not refer to the pace. The challenging and altering of assumptions is closely related to the concepts of ‘mind-set’ and ‘mental models’ often referred to in relation to strategic change or innovation (Jacobs & Heracleous, 2005; Markides, 1997; Normann, 2001). Building on suggestions in the literature of the relationship between these concepts and discursive action for cognitive change; the role of language in strategic change was further examined in Paper IV. While the resulting analysis of the aggregated semantic development over time shows a gradual change, the identified and significant keywords, however, yielded a more revolutionary transition in the discourse of the context studied. In line with the findings of the empirical inquiry, the changes in discourse are exemplified through the semantic content in 2001 including ‘turnover’, ‘investments’ and ‘production’, to ‘customer’ entering in 2005, to ‘packaging’, ‘solutions’ and ‘sustainable’ in 2010. This incremental revolution also tempers with the “logical incrementalism”. Although the new strategic direction was intended in the case of Billerud, the implementation process was not just a careful manoeuvring as suggested by Quinn (Mintzberg & Quinn, 1992) but filled with unexpected events and situations.

The foremost managerial consequence of strategic change as incremental revolution in the paper packaging industry is that it must be conceived as such, acknowledging that it is stepwise, time and resource consuming *and* mind-boggling. In line with findings by Dougherty (1992), a challenge and opportunity lie in the different thought-worlds represented in this case by the ‘productivity-focus’ versus the ‘customer-sales’ focus between the mills and headquarters. In order to leverage the competencies inherent in

these two, which are equally important for long-term competitive advantage, a strategy making process that involves a broad cross section of the company is of essence. This is particularly the case when the final outcome is blurry and the concepts on which the journey rests (i.e. customer orientation and innovation) are not familiar to the organisation. That is not to suggest a full-blown democratic process where all take part and have a say. Rather, it suggests a process of strategy making that enhances execution and continuous improvements of 'the plan' by encouraging and welcoming purposeful dialogue and activities across competencies, creating synthesis and synergies. Given that increased market (or customer) orientation and innovation are prerequisites for future firm performance and competitive advantage, this means that while traditional and analytically based tools and processes for planning and implementation are needed, other steps and processes must be embraced which may seem simple at the outset but prove to be far more difficult in daily practice. A revolution needs revolutionaries both on the level of industry and business organisation. With regard to the latter that involves individuals that do not fit into hierarchically embedded managerial processes or analytical frameworks. Adding to Hamel's question (1996), What are the fundamental (industrial) conventions we have examined and abandoned in our company?, would be to ask: What are the fundamental managerial conventions we have examined and abandoned in our company?

6.5 The difference between PowerPoints and reality

Returning to the quote at the very introduction to this thesis on "...studies and PowerPoints" captures the problem I perceived, fuzzily, at the outset of my research endeavour. It captures the gap between the analytically derived formulation of strategy (often presented in the form of PowerPoint presentations) and the challenges of implementing the same, particularly if the context is not considered. Although this linear process and gap between formulation and implementation has long been addressed and dismissed in the literature (Cummings & Daellenbach, 2009; Mintzberg, 1994), it is still a reality in practice.

In search for answers and solutions, Billerud turned to external management consultants on at least two occasions when revising the company's strategy, in 2003/2004 and 2006. The consultant input was considered valuable by management in terms of identifying or highlighting the company's resources and attractive market segments, structural solutions and slack to be reduced; but it did not enable implementation in the way it was proposed. The time for implementation was underestimated and there were no suggestions on how to manage the challenge of "turning people's heads around" as expressed by one senior manager. Hence, the *management* of 'the strategic' proved to be a far bigger challenge than foreseen. One challenge was the unaccounted need for tools and processes for market learning, new

product development and innovation (Papers I and III). While these were acquired through new recruits and internal development over time, simple but relevant questions have lingered over the years: What defines a new product? What do we mean by innovation? While these questions have answers in the literature on product development and innovation, they are not necessarily considered important to address in the process of strategy making per se. Another challenge was the unaccounted effects of further streamlining and standardising across the mills. The solution being that “all mills were to look the same” as one senior manager commented, led to eliminating slack but at the same time eliminating room for competence transfer and education.

Given the dominance of the analytical approaches based on rational assumptions in the field of strategic management and arguably among management consultants, the ‘processual approach’ and ‘cultural view’ have more to offer in terms of understanding and managing strategic change towards increased customer orientation and innovation. I would argue that this applies particularly when it is a matter of sense-making and application in everyday practice from management and beyond. The developments in the resource-based view of dynamic capabilities are argued to hold promise for further focus on processes for knowledge, learning and innovation (Herrmann, 2005; Newbert, 2007). Thus far, however, the research has had a strong focus on firms operating in environments of rapid technological change or businesses further down the supply and value chains, other than the likes of Billerud.

It goes without saying that this very thesis is in itself a contribution to “...the studies and PowerPoints”, albeit an effort to highlight the problem in the particular context, suggesting that this is partly caused by the rational assumptions guiding the dominant schools of thought in strategy (and strategy planning in practice). While these arguably contribute with models for formulating strategy, be it through analysing the external market or the internal resources, limited attention is given to ‘how to go about making it happen’, beyond traditional levers such as objectives, organisational structure and responsibilities together with formal systems for management and control. There are suggestions in the literature which indicate that this conundrum can be solved through for example the use of reflective dialogue (Jacobs & Heracleous, 2005), through participatory approaches to strategy making as suggested by Hamel (1996) and more iteratively designed strategy processes (Sull, 2007), or through taking steps for closing the knowing-doing gap (Pfeffer & Sutton, 2000). These notions are not difficult to grasp, however an iterative process of strategy making, reflective dialogue and suggestions of simple talk are not easily framed on a PowerPoint, and may not be perceived as legitimate management practice.

Given the findings presented here, I would argue that the differences and solutions lay in between, in the tension caused by the “PowerPoints” and reality, where both traditional (rational) tools and models for strategy formulation and implementation

are coupled with other “tools” such as simple talk (as opposed to a complex language), listening and testing, within and beyond the realm of management. Hence, a form of “stretch and leverage” to paraphrase Hamel and Prahalad (1993), however not only in terms of leveraging resources but also for leveraging understanding, learning and doing.

The implications for managers on the divide between “PowerPoints and reality” are not that the PowerPoints are wrong per se. The learning that can be drawn from this study is rather that the notions and solutions put forth, be they from the literature, consultants or researchers, should be conceived in the light of the particular industry and organisation at hand. For companies in the forest and paper packaging industry this may be of particular importance if the aim is to break away from a reigning paradigm, and not to ‘follow the others’. What may be more important is to further the ambition to conceive the impact of changes and address these from multiple perspectives and levels of the organisation, and through learning-by-doing.

6.6 Conclusions

Answering *how* an organisation upstream in the supply/value chain goes about strategic change towards increased customer orientation and innovation has been interpreted as a shift to a more comprehensive strategy moving towards ‘differentiation’ while not abandoning the current process efficiency and cost focus. This is a dual approach of sorts, aimed to combine and manage the co-existence of two strategic intents, an approach that is both discarded and acknowledged in theory. This approach does not fit with one particular school of thought in the field of strategy but is understood by integrating an external market *and* internal capability view, based on rational and more pragmatic assumptions. Nor does this approach fit with the particular case, an actor in the Swedish forest and paper packaging industry, upstream in the supply/value chain where success has been based on building resources and capabilities of process efficiency and high volume output at competitive prices.

The crux of the strategic change lies in shifting the focus from the internal to the external, or rather combining both. Important markers are extending the scope of the value chain beyond first customers, along with market learning, collaboration and development of new offerings. It is an iterative process of strategy formulation and implementation where strategy ‘PowerPoints’ and reality in the organisation create gaps that have to be managed in ways not necessarily conceived at the outset. However, the way new capabilities are built bears more resemblance to mechanisms synonymous with firms on more dynamic markets. It is a time consuming, incremental albeit revolutionary process, creating new meaning to concepts such as customer orientation and innovation, again more at home in other industries. It is a balancing and risk-taking act where many of the existing assumptions are challenged

and where progress are not necessarily found in short-term financial figures inspiring the development of other complementary measures. Having faith may be more important than anything else.

The foremost *challenge* to strategic change lies in conceiving, or *not* conceiving, the link between strategy, customer orientation and innovation, and the relationship between the current and the intended, which equally merit more attention in academia. This is not an issue which can be referred to the analysis or planning phase of strategy formulation, and hence a problem of adhering to a linear view (i.e. planning first, then implementation). It is a more granular challenge requiring an inquiry into the interdependencies between these concepts on the level of strategy and daily operations as a means for understanding and leveraging the differences. Managing strategic change subsequently pivots around enabling a transition from the current to the intended and addressing particular paradoxes of the emerging duality on a strategic and an organisational level.

Enabling strategic change towards increased customer orientation and innovation in the forest and paper packaging industry means managing towards and balancing duality. This duality is not only between the present and the future but can be found in strongly polarising forces between the inherent production efficiency and customer or market focused development. While traditional levers of strategic change and implementation are central ingredients, other mechanisms for managing the subsequent paradoxes over time suggest more situated approaches beyond structural solutions. Integrating the polarising forces, finding ways to *Feature* new offerings by combining existing and new perspectives and competencies coupled with *Faith* may be further prerequisites for long-term success; prerequisites which merit further attention in research. Given that strategic change is argued to require cognitive change, seeing the bottom line in financial figures is not a sufficient measure for progress. Other *measures* of for example the semantic development can serve as a complementary insight.

~

To conclude, one can ask how these findings contribute to an increased understanding of strategic change towards increased customer orientation and innovation? Are the findings idiosyncratic (i.e. firm specific)? Has Billerud really managed to answer to the calls of new strategic directions in the Swedish forest and paper packaging industry (i.e. have they changed)? Is Billerud's journey an exception? How can these findings serve as a benchmark for future research in academia and attempts in practice in similar companies and industries?

I have aimed to answer these questions throughout the thesis and in the appended paper. The contribution, I believe, lies foremost in the longitudinal study of a an industry and company not often referred to in studies of strategic management and

change, matching relevant theories from different schools of thought and perspectives, contributing through new matching of existing theory and alternative interpretations. The findings yield an example of one company's attempt at answering the calls for a new strategic direction, the way of doing so being perhaps idiosyncratic in relation to the industry, through learning mechanisms synonymous with other contexts. Foremost, the study presented here serves as an interesting example and input to the continued research in academia given (1) an increase in practice in terms of adapting and combining strategy ideas and frameworks as noted by Cumming and Daellenbach (2009), and (2) Herrmann's (2005) argument that competitive advantage will increasingly be more difficult to define.

For the forest and paper packaging industry the question of what is required for long-term success remains, given the limited growth on the European home markets, the increasing competition from developing markets and the financial development in the industry. It is reasonable to believe that a strategic change towards increased customer orientation and innovation is only valuable if it is implemented in a way that combines the 'pull' with the 'push'. In other words, where differentiation through innovation is integrated in the (paper) product or production development processes by finding a 'third way out', as proposed in Paper III. This can be accomplished by featuring new products with added value, where market needs (and the manner in which these are identified) are integrated in explorative product and production development processes. A development that runs contrary to the nature of the industry which requires a high level of risk-taking. This particular case is an interesting example of this, and a proactive inside-out driven change where the company imposes itself on the external environment which again runs contrary to assumptions about this industry in the literature and practice.

7. Contributions and suggestions for future research

“Knowledge has to be improved, challenged, and increased constantly, or it vanishes”.

(Peter Drucker)

This thesis contributes to the identified need for longitudinal studies of organisations, not least with regard to strategic change towards more comprehensive strategy paradigms (Herrmann, 2005; Markides, 2001; Pettigrew, 1990). Longitudinal studies are important in considering the emerging definitions and practices of strategy and competitive advantage where clear cut boundaries and trade-offs are no longer sacred in practice or academia (Cummings & Daellenbach, 2009; Herrmann, 2005).

This research took its outset in practice and real life observations, not just in a gap in theory, to paraphrase Corley and Gioia (2011). By doing so, the findings address the ‘utility’ dimension, meaning their usefulness in both academia and practice. The practical usefulness is of growing importance in order to remedy, not least, the criticism of strategy and management scholars of only serving their own community (Corley & Gioia, 2011). The particular case studied – a business upstream in the supply/value chain in the forest and paper packaging industry – has received limited attention in research and thus serves as a contribution to academia for refining or adding to existing theory on the management of strategic change. Studying the case from different perspectives and points in time, as suggested by Yin (2003), has resulted in theoretical and practical contributions and interesting avenues for future research.

7.1 Contributions to academia and practice

The strategic change process studied here is supported by numerous scholars who point to the interdependency and non-linearity between strategy formulation and implementation, a process where change can be described as stepwise and more or less controlled (Mintzberg & Quinn, 1992; Sull, 2007). The identified challenges to customer orientation and innovation, or new product activity as suggested in Paper I, equally confirm existing theory. However, exploring this process in the particular context contributes to the understudied link between strategy, customer orientation and innovation. By acknowledging this relationship, as suggested by Frambach et al. (2003), this thesis provides a more granular understanding of the non-linear, iterative

process. Interpreting this link from the cultural view (Homburg & Pflesser, 2000), this thesis identifies and suggests what and how the inherent values and perspectives on market orientation and the assumptions guiding the current strategy influence the intended strategy (Paper I). As a result, a different causal order than the one suggested by Frambach et al. (2003) is proposed, with identified consequences for managing strategic change towards a more iterative and situated approach beyond the delegating of formal objectives (Papers I and II).

Building on this link, and in an effort to embrace the scope of strategic change identified in the empirical study, this thesis proposes a framework; a landscape of the emerging dual and seemingly incommensurable strategic intents that explicates their inherent core activities and capabilities (Paper II). While the respective ingredients in the proposed landscape are based on the existing literature, merging these offers a contribution to practice and academia. For research, it offers a conceptual framework of strategic change towards increased customer orientation and innovation in that it explicates different factors (i.e. perspectives of strategy and linked core activities and capabilities) and how they are related in the particular context. This enables further studies and operationalisation. For practice, the landscape provides a conceptual framework of sense-making, of use to further understand the challenges and the inherent paradoxes on a strategic and an organisational level. It pinpoints the “revolution” in cognitive terms, for creating new and complementary understanding and practice of the external perspective of the market and the internal capabilities for product development and innovation. Hence, it further emphasises results and solutions beyond the structural and temporal, common in strategic change.

Four dynamic mechanisms are suggested (Paper III) that contribute to the understanding of how strategic change is managed over time. These are not to be confused with, but compared with the suggestions on dynamic capabilities of Teece (2007) and Eisenhardt and Martin (2000). The suggestions in Paper III can be regarded as an incremental contribution to theory in that they contribute to development of the resource-based view; the case in itself offers interesting and potentially original suggestions. Firstly, given the particularities of the forest and paper packaging industry, the paradoxes or incommensurability between exploring and exploiting are pinpointed, as opposed to Teece’s suggestions (2007). While the balancing of exploring and exploiting is recognised elsewhere in the literature, this thesis identifies and suggests particular issues of these managerial and organisational challenges, coupling strategic questions with polarising answers and issues on strategic and organisational levels (Paper III). Hence, the thesis proposes novel examples and learning mechanisms to the dynamic capability frameworks based on challenges identified in a mature primary industry setting. Secondly, the learning mechanisms applied in the case study suggest that they are influenced and guided by the strategic intent rather than the market dynamism, as proposed by Eisenhardt and Martin (2000). For practice, the suggested mechanisms (i.e. *Finding, Forming, Featuring* and

Faith) contribute to the understanding and management of different levers in striving towards a new strategic direction. These offer examples of particular questions (i.e. issues of strategic and organisational paradox) to be addressed. More importantly, this thesis suggests levers beyond structural solutions (i.e. ambidextrous organisations) for dealing with issues of paradox. A definition of strategic paradox is also proposed.

Based on the postulation that strategic change requires cognitive change, this thesis suggests that language or rather the semantics of an organisation can be a complementary measure of strategy implementation and development (Paper IV). The thesis provides a potentially original contribution to theory and practice for continued research and application by proposing and applying a method for measuring the semantic development over time through latent semantic analysis (LSA). Beyond the novel application of LSA, this thesis has contributed methodologically with insight and areas for improvement of case study research and in particular, the reporting thereof (Paper V).

For the discipline of packaging logistics, this thesis contributes foremost with an increased understanding of the industry and one of the actors that is influencing the development of future packaging solutions, which are becoming increasingly important for sustainable and economic growth.

In summary, this thesis is a contribution to the eclectic field of strategic management and a link between academia and practice. That said, it is important to state that this thesis is based on a longitudinal and qualitative study of one case. In as much, the findings and conclusions aspire to fulfil the criteria for similar research but are not necessarily generalisable. The contributions to theory and practice offer interesting avenues for future research through comparative qualitative case studies or more quantitative endeavours.

7.2 Suggestions for future research

Primary industries like the forest and paper packaging industry merit further attention in research on strategic change and on prerequisites for managing new strategic directions. While this industry and related ones may not be as attractive as industries or markets closer to consumers that have more technically advanced products (as opposed to technically advanced production processes), it serves as an interesting case in the continued search for knowledge on strategic change and the future of competitive advantage, not least coupled with the concepts of customer orientation and innovation.

Three areas for future research are suggested: *Firstly*, with regard to the link between strategy, customer orientation and new product development and innovation. An interpretation of this relationship based on the cultural view of market orientation, further acknowledging strategy as either position, perspective or based on internal

resources and capabilities, could yield new, interesting hypotheses to add to the ones suggested and tested by Frambach et al. (2003), or the behavioural framework on market orientation as suggested by Kohli and Jaworski (1990). Testing and measuring an organisation's relative emphasis on market (and non-market) oriented cultural artefacts as suggested by Homburg and Pflesser (2000) (i.e. employee narratives, customer events, customer-focused language) over time and the effects on new product activity and innovation, production efficiency and strategy (i.e. cost/differentiation, resources/capabilities etc.) could yield novel answers to how strategic change in primary industries is managed and how competitive advantage can be achieved. While cultural aspects are acknowledged in the literature, more concrete links and answers to the relation with strategy would benefit the field of strategic management. As suggested in Paper II on 'situated cognition', identifying the content and relative impact between the interdependent parts of strategic 'concept/s', 'authentic work activities' and 'culture/s' could shed more light on the iterative process of strategy formulation and implementation in strategic change – studied from different perspectives and levels in an organisation. A further avenue would be to disaggregate the activities and capabilities in the suggested and dual landscape (Paper II), developing a model for internal scenario planning.

Secondly, on the bigger question of new strategic directions for industries like the forest and paper packaging industry – and in particular the development of innovative capabilities – this thesis suggests interesting avenues for future research based on dynamic capabilities. This can be done by drawing on the findings, and further develop the dynamic capability framework suggested by Teece (2007) and the considerations of market dynamism suggested by Eisenhardt and Martin (2000). Further research of how and if the dynamic capability framework can be adapted to similar settings like the one of Billerud, and additional identification of the actual capabilities needed for a future competitive advantage would naturally be welcomed. As pointed out in Paper III, this is also of particular interest in considering the distinction and interrelationships between ambidextrous organisations and ambidextrous or paradoxical strategies. For the particular industry studied here, further research on how new and old capabilities can be built and merged is useful not least with regard to innovation, identifying also what type of innovation is or may be fruitful. The identified paradoxes (Paper III) and the suggestions of finding a "third-way-out" through the offering (i.e. *Featuring*) is an area to be further explored as a complement to the predominant suggestions in the literature on (organisational) structural solutions. The framework suggested in Paper III (i.e. dynamic mechanisms for managing issues of strategic and organisational paradox in strategic change) could be further elaborated, operationalised and tested to identify more issues and solutions for dealing with paradoxes in strategic change

The findings of dual strategic intents and paradoxical issues have throughout this thesis raised questions on how to create understanding, and the role of language as a

means of creating new understanding and, subsequently, behaviour. An interesting avenue would be to further operationalise the notions in, for example, reflective dialogue as a means for strategic innovation (see e.g. Jacobs & Heracleous, 2005), however beyond the level of management. Another interesting avenue would be postulating that an organisation's relative internal and external dialogues on assumptions and issues of strategy, market needs and potential innovations lead to a competitive advantage.

Thirdly, given the relation between strategic change and cognition and the role of language, further research applying quantitative methods like latent semantic analysis (LSA) is suggested. The explorative analysis conducted for this thesis raises questions on further, enlarged and comparative studies including other actors in the Swedish (and global) forest and paper packaging industry as well as other industries. In addition to written communication found in internal and external documents, transcripts of verbal communication can be used for analysis. Equally, the LSA offers potential avenues for studying not only the semantic development over time but also group dynamics and the role of diverging and converging semantics for strategy implementation. As suggested in Paper IV, one interesting avenue would be to further operationalise the findings by Kellermanns et al. (2011) who argue the relationship between market dynamics and the role of consensus or non-consensus in management groups for effective strategy implementation. LSA also offers other forms of analysis than the ones performed here, such as the semantic nearness or distance of target words to other words. This could further illustrate the changing understanding and application of concepts such as customer orientation and innovation. Naturally, the usefulness of similar analyses, in relation to established methods for the qualitative analysis of written and verbal expression, needs to be further explored. More importantly and potentially more interesting is determining the usefulness of the results of a quantitative method such as LSA in relation to more traditional measures of corporate success, asking for example if the results of semantic analysis could serve as a measure of an organisation's ability to change and innovate, and ultimately of a firm's potential competitive advantage.

References

- Alvesson, M. & Sköldberg, K. (1994). Tolkning och reflektion - Vetenskapsfilosofi och kvalitativ metod. (First edn ed.) Studentlitteratur, Lund.
- Andersson, T. (1993). Strukturförändringar och Utvecklingsstrategier inom Svensk Skogsindustri - tre exempel: MoDo, SCA och STORA. Department of Forest-Industry-Market Studies, SLU Info/Repro, Uppsala.
- Arbner, I. & Bjerke, B. (1994). Företagsekonomisk metodlära. Lund: Studentlitteratur.
- Argyris, C. (1989). Strategy Implementation - An Experience in Learning. *Organizational Dynamics*, 18(2), 5-15.
- Baden-Fuller, C. (1995). Strategic Innovation, Corporate Entrepreneurship and Matching Outside-in to Inside-out Approaches to Strategy Research. *British Journal of Management*, 6(Special Issue), 3-16.
- Baden-Fuller, C. & Volberda, H. W. (1997). Strategic Renewal - How Large Complex Organisations Prepare for the Future. *International Studies of Management & Organization*, 27(2), 95-120.
- Beckman, C.-G. (2008). Innovation Management i ny skepnad ett måste för svensk skogsindustri. *Nordisk Papper & Mässa*, (1/2008), 58.
- Beckman, M. (2011). The Potential for Innovation in the Swedish Food Sector. Lund: Media-Tryck.
- Berg, P. (2005). Are you really customer focused? *PPI Pulp and Paper International Magazine*, 47(6), 64.
- Bessant, J., Lamming, R., Noke, H., & Phillips, W. (2005). Managing innovation beyond the steady state. *Technovation*, 25(12), 1366-1376.
- Billerud. (2004). Billerud Annual Report 2003. <http://www.billerud.com/Documents/annualreports/annualrep2003en.pdf>
- Billerud. (2005). Billerud Annual Report 2004. <http://www.billerud.com/Investor-Relations/Financial-Reports/2004/Annual-Report-2004/> .

- Billerud. (2006). Billerud Annual Report 2005.
http://www.billerud.com/Documents/annualreports/%c3%85rsredovisning_2005_eng_3.pdf
- Billerud. (2007). Billerud Annual Report 2006.
http://www.billerud.com/Documents/annualreports/Annual_report_2006.pdf . 3-1-2014.
- Billerud. (2008). Billerud Annual Report 2007.
<http://www.billerud.com/Documents/Cision/documents/2007/Billerud%20%c3%85rsredovisning%202007%20ENG.pdf> . 3-1-2014.
- Billerud. (2010). Billerud Annual report 2009.
<http://www.billerud.com/Documents/Cision/documents/2010/20100412-billeruds-annual-report-for-2009-released-en-2-482808.pdf> . 3-1-2014.
- Billerud. (2011a). Billerud Annual Reports 2004 - 2010. <http://www.billerud.com/Investor-Relations/Financial-Reports/> . 3-1-2014a.
- Billerud. (2011b). Pressrelease: Year-end report January-December 2010.
<http://www.billerud.com/Media/Press-releases/2011/Year-end-report-January-December-2010/> .
- Bjorkdahl, J. & Borjesson, S. (2011). Organizational climate and capabilities for innovation: a study of nine forest-based Nordic manufacturing firms. *Scandinavian Journal of Forest Research*, 26(5), 488-500.
- Brown, J. C., Collins, A., & Newman, D. (1989). Situated cognition and the culture of learning. *Educational Researcher*, 18(1), 32-42.
- Bryman, A. (1989). *Research methods and Organizations Studies*. Reprint 1995. Routledge, London.
- Burrell, G. & Morgan, G. (1979). *Sociological Paradigms and Organizational Analysis; Elements of the Sociology of Corporate Life*. (vols. First edn) London: Heinemann Educational Books Ltd.
- Cooper, R. G. (1990). Stage-Gate Systems - A New Tool for Managing New Products. *Business Horizons*, 33(3), 44-54.
- Cooper, R. G. & Kleinschmidt, E. J. (1993). Screening New Products for Potential Winners. *Long Range Planning*, 26(6), 74-81.
- Corley, K. G. & Gioia, D. A. (2011). Building Theory About Theory Building: What Constitutes A Theoretical Contribution? *Academy of Management Review*, 36(1), 12-32.
- Cummings, S. & Daellenbach, U. (2009). A Guide to the Future of Strategy? The History of Long Range Planning. *Long Range Planning*, 42(2), 234-263.

- Day, G. S. (1999). Misconceptions About Market Orientation. *Journal of Market Focused Management*, 4(1), 5-16.
- Deschamps, J. P. (2008). *Innovation leaders - how senior executives stimulate, steer and sustain innovation*. Wiley, UK: Jossey-Bass.
- Di Stefano, G., Gambardella, A., & Verona, G. (2012). Technology push and demand pull perspectives in innovation studies: Current findings and future research directions. *Research Policy*, 41(8), 1283-1295.
- Dobni, C. B. (2010a). Achieving synergy between strategy and innovation: The key to value creation. *International Journal of Business Science and Applied Management*, 5(1), 48-58.
- Dobni, C. B. (2010b). The relationship between an innovation orientation and competitive strategy. *International Journal of Innovation Management*, 14(2), 331-357.
- Dong, A. (2005). The latent semantic approach to studying design team communication. *Design Studies*, 26(5), 445-461.
- Dougherty, D. (1992). Interpretive Barriers to Successful Product Innovation in Large Firms. *Organization Science*, 3(2), 179-202.
- Dougherty, D. & Hardy, C. (1996). Sustained product innovation in large, mature organizations: Overcoming innovation-to-organization problems. *Academy of Management Journal*, 39(5), 1120-1153.
- Drucker, P. F. (2002). The discipline of innovation. *Harvard Business Review*, 80(8), 95-103.
- Dubois, A. & Gadde, L. E. (2002). Systematic combining: an abductive approach to case research. *Journal of Business Research*, 55(7), 553-560.
- Dufour, Y. & Steane, P. (2006). Competitive paradigms on strategic change: mapping the field and further research development. *Strategic Change*, 15(3), 129-144.
- Dul, J. & Hak, T. (2008). *Case Study Methodology in Business Research*. Oxford: Elsevier Ltd.
- Edström, A. & Strömberg, L. (1993). Svensk skogsindustri kvar i Sverige efter år 2000? Strategisk dialog näringsliv-samhälle (Rep. No. IVA-R 397). Ingenjörsvetenskapsakademin (IVA), Stockholm.
- Eisenhardt, K. M. (1989). Building Theories from Case-Study Research. *Academy of Management Review*, 14(4), 532-550.
- Eisenhardt, K. M. & Graebner, M. E. (2007). Theory building from cases: Opportunities and challenges. *Academy of Management Journal*, 50(1), 25-32.
- Eisenhardt, K. M. & Martin, J. A. (2000). Dynamic capabilities: What are they? *Strategic Management Journal*, 21(10-11), 1105-1121.

- Flyvbjerg, B. (2006). Five misunderstandings about case-study research. *Qualitative Inquiry*, 12(2), 219-245.
- Frambach, R. T., Prabhu, J., & Verhallen, T. M. M. (2003). The influence of business strategy on new product activity: The role of market orientation. *International Journal of Research in Marketing*, 20(4), 377-397.
- Garcia, R. & Calantone, R. (2002). A critical look at technological innovation typology and innovativeness terminology: a literature review. *Journal of Product Innovation Management*, 19(2), 110-132.
- Gibson, C. B. & Birkinshaw, J. (2004). The antecedents, consequences, and mediating role of organizational ambidexterity. *Academy of Management Journal*, 47(2), 209-226.
- Gummesson, E. (2000). *Qualitative Methods in Management Research*. (Second edn ed.) Thousand Oaks, California: Sage Publications Inc.
- Gummesson, E. (2003). All research is interpretive! *Journal of Business and Industrial Marketing*, 18(6/7), 482-492.
- Györi, G. (2002). Semantic change and cognition. *Cognitive Linguistics*, 13(2), 123-166.
- Hamel, G. (1996). Strategy as revolution. *Harvard Business Review*, 74(4), 69-82.
- Hamel, G. & Prahalad, C. K. (1993). Strategy As Stretch and Leverage. *Harvard Business Review*, 71(2), 75-84.
- Hansson, B. (1992). *Metod eller anarki - Moderna teorier om vetenskapens väsen och metoder*. Lund: Filosofiska institutionen Lunds Universitet.
- Hartelius, E. J. & Browning, L. D. (2008). The application of rhetorical theory in managerial research - A literature review. *Management Communication Quarterly*, 22(1), 13-39.
- Hayhurst, D. (2002). Valuing the customer's voice. *PPI Pulp and Paper International Magazine*, 44(8), 25-27.
- HBR, E. (2002). Inspiring Innovation. *Harvard Business Review*, 80(8), 39-49.
- HBR, E. (2011). *HBR's 10 Must Reads on Strategy*. Boston: Harvard Business School Press.
- Herrmann, P. (2005). Evolution of strategic management: The need for new dominant designs. *International Journal of Management Reviews*, 7(2), 111-130.
- Higgins, J. M. & Mcallaster, C. (2004). If you want strategic change - don't forget to change your cultural artifacts. *Journal of Change Management*, 4(1), 63-73.
- Homburg, C. & Pflesser, C. (2000). A multiple-layer model of market-oriented organizational culture: Measurement issues and performance outcomes. *Journal of Marketing*, 3(4), 449-462.

- Huberman, M. A. & Miles, M. B. (1998). Data Management and Analysis Methods. In N.K.Denzin & Y. S. Lincoln (Eds.), *Collecting and interpreting qualitative materials* (pp. 179-209). London: Sage.
- Jacobs, C. D. & Heracleous, L. (2005). Answers for questions to come: reflective dialogue as an enabler of strategic innovation. *Journal of Organizational Change Management*, 18(4), 338-352.
- Janssens, M. & Steyaert, C. (1999). The world in two and a third way out? The concept of duality in organization theory and practice. *Scandinavian Journal of Management*, 15(2), 121-139.
- Jenster, P. & Jaworski, B. (2000). Driving Forces in Market Orientation: A Study of Industrial Firms. *Strategic Change*, 9(6), 357-362.
- Jönson, G. (2001). *Packaging Development Update 2001* Lund: KFS i Lund AB.
- Kalling, T. (2007). The lure of simplicity: Learning perspectives on innovation. *European Journal of Innovation Management*, 10(1), 65-89.
- Kaplan, R. S. & Norton, D. P. (1992). The Balanced Scorecard - Measures That Drive Performance. *Harvard Business Review*, 70(1), 71-79.
- Kay, J. (1993). The Structure of Strategy. *Business Strategy Review*, 4(2), 17-37.
- Kellermanns, F. W., Walter, J., Floyd, S. W., Lechner, C., & Shaw, J. C. (2011). To agree or not to agree? A meta-analytical review of strategic consensus and organizational performance. *Journal of Business Research*, 64(2), 126-133.
- Kim, W. C. & Mauborgne, R. (2004). Blue ocean strategy. *Harvard Business Review*, 82(10), 76-84.
- Kim, W. C. & Mauborgne, R. (2005). *Blue Ocean Strategy - How to Create Uncontested Market Space and Make the Competition Irrelevant*. Boston: Harvard Business Review Press.
- Kirkeby, O. F. (1994). Abduktion. In H.Andersen (Ed.), *Vetenskapsteori och metodlära - Introduktion* (pp. 143-180). Lund: Studentlitteratur.
- Klint, M. B. (1997). *Strategi för svensk skogsindustri år 2000+*. Uppsala Universitet, Repro HSC, Uppsala.
- Kohli, A. K. & Jaworski, B. J. (1990). Market Orientation - the Construct, Research Propositions, and Managerial Implications. *Journal of Marketing*, 54(2), 1-18.
- Kovács, G. & Spens, K. M. (2005). Abductive reasoning in logistics research. *International Journal of Physical Distribution & Logistics Management*, 35(2), 132-144.
- Landauer, T. K. (1998). Learning and representing verbal meaning: The latent semantic analysis theory. *Current Directions in Psychological Science*, 7(5), 161-164.

- Landauer, T. K. & Dumais, S. T. (1997). A solution to Plato's problem: The latent semantic analysis theory of acquisition, induction, and representation of knowledge. *Psychological Review*, 104(2), 211-240.
- Lincoln, Y. S. & Guba, E. G. (1985). *Naturalistic inquiry*. Beverly Hills, California: Sage Publications.
- Magnusson, M. & Martini, A. (2008). Dual organisational capabilities: from theory to practice - the next challenge for continuous innovation. *International Journal of Technology Management*, 42(1-2), 1-19.
- Mankins, M. C. & Steele, R. (2005). Turning great strategy into great performance. *Harvard Business Review*, 83(7), 64-72.
- March, J. G. (1991). Exploration and Exploitation in Organizational Learning. *Organization Science*, 2(1), 71-87.
- Markides, C. (1997). Strategic innovation. *Sloan Management Review*, 38(3), 9-23.
- Markides, C. (2001). Strategy as Balance: From "Either-Or" to "And". *Business Strategy Review*, 12(3), 1-10.
- Markides, C. (2004). What is Strategy and How Do You Know If You have One? *Business Strategy Review*, 15(2), 5-12.
- Marshall, C. & Rossman, G. B. (2006). *Designing Qualitative Research*. (4 edn ed.) Thousand Oaks, Calif: Sage Publication Inc.
- McDonough, E. F. (2000). Investigation of factors contributing to the success of cross-functional teams. *Journal of Product Innovation Management*, 17(3), 221-235.
- MH (2006, November 15). Billerud: Vill röra sig framåt i värdekedjan. Nyhetsbyrån Direkt.
- Miles, M. B. & Huberman, M. A. (1994). *Qualitative Data Analysis*. Thousand Oaks, California: Sage Publications Inc.
- Mintzberg, H. (1987). The Strategy Concept .1. 5 Ps for Strategy. *California Management Review*, 30(1), 11-24.
- Mintzberg, H. (1994). *The Rise and Fall of Strategic Planning*. Hertfordshire: Prentice Hall International (UK).
- Mintzberg, H. & Quinn, J. B. (1992). *The Strategy Process - Concepts and Context*. Englewood Cliffs: Prentice Hall International, Inc.
- Newbert, S. L. (2007). Empirical research on the resource-based view of the firm: An assessment and suggestions for future research. *Strategic Management Journal*, 28(2), 121-146.
- Normann, R. (2001). *Reframing business - When the Map Changes the Landscape*. Chichester, John Wiley & Sons Ltd.

- Normann, R. & Ramirez, R. (1998). *Designing interactive strategy - from value chain to value constellation*. Chichester: John Wiley & Sons Ltd.
- O'Reilly, C. A. & Tushman, M. L. (2004). The ambidextrous organisation. *Harvard Business Review*, 82(4), 74-81.
- Olander-Roese, M. (2008). *Towards a new business paradigm - A study of the paper packaging industry*. Lund: Department of Design Sciences, Division of Packaging Logistics, Lund University, Media-Tryck.
- Olsson, A. & Olander-Roese, M. (2005). Multi-theoretical perspectives in an abductive action research study. In B. Gammelgaard & T. Skjøtt-Larsen (Eds.), *Nofoma 2005 edn* Copenhagen: Nofoma.
- Ottosson, E. (2008). Strategiskt vägskäl för nordisk skogsindustri. *SPCI/Svenska Papperstidning*,(1), 26-27.
- Patton, M. Q. (2002). *Qualitative Research & Evaluation Methods*. (3rd ed.) Thousand Oaks: Sage Publications, Inc.
- Pettigrew, A. M. (1990). Longitudinal Field Research on Change: Theory and Practice. *Organization Science*, 1(3), 267-292.
- Pettigrew, A. M., Woodman, R. W., & Cameron, K. S. (2001). Studying organizational change and development: Challenges for future research. *Academy of Management Journal*, 44(4), 697-713.
- Pfeffer, J. & Sutton, R. I. (2000). *The Knowing-Doing Gap: How Smart Companies Turn Knowledge into Action*. Boston: Harvard Business School Press.
- Porter, M. E. (1980). *Competitive strategy*. New York: The Free press.
- Porter, M. E. (1985). *Competitive advantage, Creating and Sustaining Superior performance*. New York: The Free Press.
- Porter, M. E. (1996). What Is Strategy? *Harvard Business Review*, 74(6), 61-78.
- Quinn, J. B. (1978). Strategic Change - Logical Incrementalism. *Sloan Management Review*, 20(1), 7-21.
- Quinn, J. J. (1996). The role of 'good conversation' in strategic control. *Journal of Management Studies*, 33(3), 381-394.
- Raisch, S., Birkinshaw, J., Probst, G., & Tushman, M. L. (2009). Organizational Ambidexterity: Balancing Exploitation and Exploration for Sustained Performance. *Organization Science*, 20(4), 685-695.
- Rogers, P. S., Gunesequera, M., & Yang, M. L. (2011). Language Options for Managing - Dana Corporation's Philosophy and Policy Document. *Journal of Business Communication*, 48(3), 256-299.

- Rundh, B. (2005). The multi-faceted dimension of packaging - Marketing logistic or marketing tool? *British Food Journal*, 107(9), 670-684.
- Sarkees, M. & Hulland, J. (2009). Innovation and efficiency: It is possible to have it all. *Business Horizons*, 52(1), 45-55.
- Sarkees, M., Hulland, J., & Prescott, J. (2010). Ambidextrous organizations and firm performance: the role of marketing function implementation. *Journal of Strategic Marketing*, 18(2), 165-184.
- Simons, R. (1995). *Levers of control: how managers use innovative control systems to drive strategic renewal*. Boston: Harvard Business School Press.
- Simons, R. (2010). *Seven strategy questions: a simple approach for better execution*. Massachusetts: Harvard Business School Publishing.
- Slater, S. F. & Narver, J. C. (1998). Customer-led and market-oriented: Let's not confuse the two. *Strategic Management Journal*, 19(10), 1001-1006.
- Smith, W. K., Binns, A., & Tushman, M. L. (2010). Complex Business Models: Managing Strategic Paradoxes Simultaneously. *Long Range Planning*, 43(2-3), 448-461.
- Stieglitz, N. & Heine, K. (2007). Innovations and the role of complementarities in a strategic theory of the firm. *Strategic Management Journal*, 28(1), 1-15.
- Stuart, I., McCutcheon, D., Handfield, R., McLachlin, R., & Samson, D. (2002). Effective case research in operations management: a process perspective. *Journal of Operations Management*, 20(5), 419-433.
- Sull, D. N. (2007). Closing the gap between strategy and execution. *Mit Sloan Management Review*, 48(4), 30-40.
- Teece, D. J. (2007). Explicating dynamic capabilities: The nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal*, 28(13), 1319-1350.
- Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), 509-533.
- Teece, D. & Pisano, G. (1994). The Dynamic Capabilities of Firms: an Introduction. *Industrial & Corporate Change*, 3(3), 537-556.
- The Swedish Forest Industries. (2007a). *Skogsindustriernas Årsskrift 2006*. http://www.skogsindustrierna.org/om-skogsindustrierna/publikationer/skrifter/allm%C3%A4nt/skogsindustriernas_arsskrift_2006_-_utgiven_2007 . 3-1-2014a.
- The Swedish Forest Industries (2007b). *The Swedish Forest Industries Facts and Figures 2006* Bromma: Brommatryck & Brolins.

- The Swedish Forest Industries (2009). *The Swedish Forest Industries Facts and Figures 2008*. Bromma: Brommatryck & Brolin.
- The Swedish Forest Industries. (2011a). *Skogsindustriernas Årsskrift 2010*.
http://www.skogsindustrierna.se/MediaBinaryLoader.axd?MediaArchive_FileID=d03eb44f-2971-436c-ab99-31de362d30f2&FileName=Skogsindustrierna_%c3%85rsskrift2011_FINAL_.pdf . 3-1-2014a.
- The Swedish Forest Industries (2011b). *The Swedish Forest Industries Facts And Figures 2010*. Bromma: Brommatryck & Brolins.
- The Swedish Forest Industries. (2012a). *Skogsindustrin En faktasamling 2011 års branschstatistik*. Växjö, Grafiska Punkten.
- The Swedish Forest Industries. (2012b). *Strukturutveckling 1960-2012*.
<http://www.skogsindustrierna.org/branschen/branschfakta/branschstatistik/branschstatistik/massa-och-pappersindustrin/strukturutveckling> . 6-1-2012b.
- The Swedish Forest Industries. (2012c). *The Swedish Forest Industries Facts and Figures 2011*.
http://www.skogsindustrierna.org/MediaBinaryLoader.axd?MediaArchive_FileID=27399b04-0666-4a63-b7e4-3ab57a05fffd&FileName=BranschENG_2011.pdf . 6-1-2012c.
- Tidd, J., Bessant, J., & Pavitt, K. (1997). *Managing Innovation - Integrating Technological, Market and Organizational Change*. Chichester: John Wiley & Sons.
- Tushman, M. L. & O'Reilly, C. A. (1996). Ambidextrous organizations: Managing evolutionary and revolutionary change. *California Management Review*, 38(4), 8-30.
- Utterback, J. M. (1996). *Mastering the Dynamics of Innovation*. Boston, Massachusetts: Harvard Business School Press.
- Vanderheijden, K. (1996). *Scenarios: the art of strategic conversations*. Chichester: Wiley corp.
- Voss, C., Tsiriktsis, N., & Frohlich, M. (2002). Case research in operations management. *International Journal of Operations & Production Management*, 22(2), 195-219.
- Wernerfelt, B. (1984). A Resource-based View of the Firm. *Strategic Management Journal*, 5(2), 171-180.
- Whittington, R. (1997). *What is strategy and does it matter*. London: International Thomson Business Press.
- Yin, R. K. (2003). *Case study research: design and methods*. (3rd ed.) Thousand Oaks: Sage Publications, Inc.

Paper I

ADAPTING TO CHANGES IN THE SUPPLY CHAIN
– Challenges to re-defining the supply chain for increased customer orientation and product innovation within the paper packaging industry

Malin Olander¹ - Annika Olsson²
Lund University, Sweden

Summary

Supply chains are no longer to be regarded as linear constructs with definite starting and ending points, but as systems, or wholes that are to be customer driven rather than product driven. But however easy it sounds in theory industries are struggling to re-invent or re-comprehend existing business models. This paper aims to describe and identify organizational challenges to re-defining the supply chain for increased customer orientation and product innovation. The findings are based on one case study within the paper packaging industry. In conclusion four challenges are identified: *Domineering Perspectives, Tools and Processes, Strategy and strategic decision and Implementation approach.*

Keywords: Organizational challenges, Customer orientation, Product innovation, Paper packaging supply chain

Educator and practitioner summary

It is important for academia and practice to recognize the organizational challenges to re-inventing or re-comprehending assumptions, models and tools existing in business and in theory. Using a multi-theoretical approach allows for a more holistic perspective and increased understanding of the different aspects at play when initiating and implementing change.

Introduction

Customer orientation, innovation and product development are known prerequisites for success and survival within the world of businesses. The forest products industry, such as the paper packaging industry, have like many of the Swedish backbone industries a long history of surviving and excelling on a changing marketplace, innovating and developing products and services to meet the demand of their customers. Traditionally, this industry has been far away from the fast-moving consumer goods arena where forever changing trends and fads have become a way of life. They have been sitting at one end of the supply chain quite undisturbed by the market noise, and end consumer needs, focusing instead on long term investments and equally long term customer relationships higher up in the supply chain. Cost-cutting and streamlining of the organization have been, and still are, necessary evils of increased competition

¹ Division of Packaging Logistics, Lund University, 221 00, Lund, Sweden, Telephone: +46 733 220458, Fax: +46-462226080, E-mail: malin.olander@plog.lth.se

² Division of Packaging Logistics, Lund University, 221 00, Lund, Sweden, Telephone: +46 46 2229734, Fax: +46-462226080, E-mail: annika.olsson@plog.lth.se

and rising costs, and thus prerequisites to ensure a competitive advantage. A good price has been, and still is, an important selling point. And success has been measured in terms of volume and output of paper (Hayhurst 2002). But is this enough to meet the future?

Globalization, information technology, changing consumer habits and changes of power within supply chains are giving new meaning to success, also for the paper packaging industry. Packaging is becoming increasingly more important from a marketing as well as a logistics perspective for all actors in a supply chain. And paper is the world's most used, and one of the few renewable, materials for packaging (Rundh 2005). However, paper producers are said to be poor at listening to their customers and poor at working with other players in their supply chains (Berg 2005; Hayhurst 2002). Many of the companies within the forest products industry are struggling to meet the future and in the consumer packaging sector, the food producers of the world are now acting to extend their insights upstream instead, not only to converters but to the board suppliers (Berg 2005).

Despite the increased importance of packaging and the packaging industry it has attracted little research from a managerial point of view (Rundh 2005). To our knowledge there is even less research on how the producers of packaging materials, actors at one end of the supply chain, capitalize on their value chain and the increasing importance of packaging, and work towards increased customer orientation and innovative product development.

A number of scholars point at the need to reinvent, or re-comprehend, many of the existing and domineering business models in contemporary industries. Value chains and supply chains are no longer to be regarded as chains, as linear constructs with definite starting and ending points, but as systems, or wholes. The value chain as suggested by Porter in 1985 is based on the old industrial paradigm when the most critical competence was synonym to the production system and the customer was viewed merely as a recipient (Normann 2001). The changing environment has called for supply chains to be customer driven rather than product driven, a crucial network of relationships and information rather than a chain of physical supplies (Christopher & Gattorna 2005; Christopher & Towill 2000).

But however simple it might sound in theory, our research shows that there are a number of challenges to re-inventing or re-comprehending existing business assumptions, models and tools. These challenges might be particularly true for large traditional industrial organizations with a long history and well established procedures and processes, from manufacturing to sales, and with large investments in physical and psychological assets. This paper serves to identify and address some of the challenges, focusing on one organisation trying to adapt internally to changes within the supply chain.

The findings of this paper are based on a case study within one paper packaging producer. The purpose of our study was to explore, identify and increase our understanding of the organizational challenges of re-defining the supply chain for increased customer orientation and innovative product development. The purpose was also to reflect on the findings and propose areas for future research and practice, resulting in suggestions for a continued action research process, with industry, for further understanding and theory building in the areas of supply chain and change management.

Below we start by introducing the focal company and the challenges raised in practice. Next we describe our methodology approach. This is followed by a presentation and discussion of our empirical and theoretical findings structured according to the four challenges we have identified. We conclude by reflecting on our findings and present suggestion for practice and future research before ending with our conclusions.

A case from reality

In 2004, the management team of a paper packaging producer was deliberating on the next steps for ensuring the organization's continued and future success. In spite of a positive development on the global paper market in 2004, the company's own result was not as expected, and a number of factors were of concern. The overall cost levels in Europe, demographic changes, increased competition from plastic materials, and not least increased power of the retail sector among others had given rise to questions about the company's customer orientation and product development. In order to ensure a strong and leading position on the market, the current scope of their supply chain seemed to narrow and the product development ill suited to meet the demands in the future. "*We must find new business concepts...we have to get closer to our customers' customer*" as expressed by one manager.

So far, the focal company, operating at one end of the supply chain, had increased productivity and rationalised their production after best practice. Their product portfolio consisted of a number of products with competitive advantages and many lead market positions. But, to continue their progress the management team had a number of issues on the table, among them: *How to keep the success achieved so far by increasing market pull (instead of push), how to create a product development process which guarantees innovation and "new thinking", how to learn more about the market and identify potential areas of development?*

To move forward the management team revised the company's strategy and initiated a restructuring of the organization into segments with the aim to become more customer oriented and provide for more innovative product development.

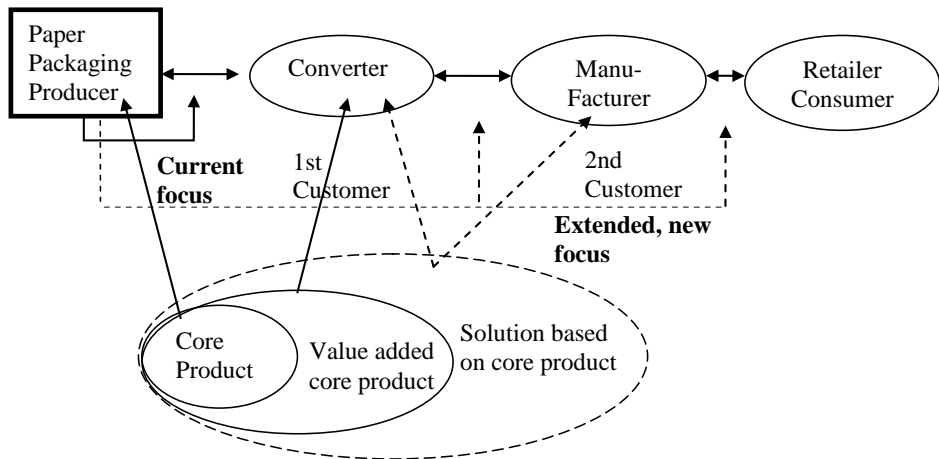
With the view to learn more about the market and customer needs, the scope of their supply and value chain was redefined and extended to cover not only their customer (below 1st customer) but also the customers' customer, the 2nd customer – the manufacturers of for example consumer, food and medical products (see figure 1). Including the 2nd customers in the scope of their supply and value chain is believed to be detrimental to their future success. The aim is *not* however, to integrate forward in the chain, i.e. to become a converter or packaging producer. The existing network organization was restructured into 14 segment teams, integrating technical and market competence, hence moving from a product oriented to a more customer oriented organizational structure.

The strategy and segment structure itself had been developed by the management team. The new mission, objectives, roles, responsibilities, ways of working and reporting structure were defined by management. The responsibilities of the segment teams were to map the value chain for their product areas, to identify cooperation projects with customers, to systematically build relationships and to identify product development needs. Two initial objectives of the respective segment teams included road shows amongst 2nd customers and a minimum of two new products or product improvements (cost saving ideas) per year.

Furthermore, the marketing organization which had previously been spread out on the respective manufacturing units was centralized to the headquarters to further emphasize the new direction, followed by the segment team structure.

The new strategy was first communicated at a joint meeting with managers and middle managers, a group of 100 people, in the beginning of 2004 followed by a number of similar meetings. But the way forward was not as straight as the management had thought or hoped for.

Figure 1. New supply chain perspective (focal company). Model based on Normann (2001)



Methodology

Research aimed at understanding and exploring issues raised by practice with the purpose to simultaneously contribute to the development of theory and practice requires a methodology which will ensure academic as well as practical relevance. The questions raised by the focal company, our purpose, and the issues identified in theory, allow for an in-depth qualitative study with a broad scope. The research design adopted is therefore action research oriented (to aid in the process of the focal company and the further generation or refinement of theory) and abductive (to allow for description, understanding and discovery through an iterative process between empirical data and existing theory).

According to Greenwood & Levin (1998) the first step in the action research process is to define a common problem or point of interest between the researcher and the organization. The focal company has identified a number of issues with regard to their customer orientation and product development in relation to their new strategy. The issues raised are shared by the focal company and by the researchers, and a further reason for selecting the particular company as a research partner. In other words, the area of interest is identified both from a practical as well as from an academic standpoint. Given the scope of the study, covering more than one theoretical and practical perspective, we chose a multi-theoretical approach: *strategy* and *product development* in relation to customer orientation and innovation, being two researchers involved with corresponding theoretical and practical backgrounds.

The abductive approach is suitable when the contribution to knowledge is about discovery, description or understanding (Dubois & Gadde 2002; Stuart et al. 2002). The abductive approach is similar to induction in the aim to generate theories. One main distinction however, is a stronger reliance on theory in abduction which allows for an iterative process between different research activities and between empirical data and theory which we believe to be fruitful (Alvesson & Sköldbberg 1994; Dubois & Gadde 2002).

Where the aim is to understand and analyze different processes within an organization such as change, decision making and implementation, qualitative methods are preferred

(Gummesson, 2000). The data collection in our study is based on interviews, participation in meetings and written material. The interviews were conducted with all members of the management team, a selection of managers and employees within R&D, Production and Marketing & Sales, and all of the members within one selected segment team: "Segment I" (see table of interviewees in Appendix 1). In the selection for the interviewees, in dialogue with the focal company, we acknowledged the challenge with studying organizations put forward by Bryman (1989) as to what level of analysis to conduct the research and who should be included in the empirical studies. In total we conducted 14 in-depth semi-structured interviews based on questions covering: the reasons for the on-going change initiative, the actual strategy and implementation efforts, and the possibilities and challenges as to customer orientation and product development from the perspective of the particular segment. Furthermore we had four meetings with the management team to prepare and reflect on our findings. In addition we participated in two segment meetings concerning the planning and follow-up to the road show among 2nd customers.

The questions were developed by the researchers together in order to ensure that both research perspectives were covered. The interviews were audio taped and each researcher listened, analyzed and interpreted the interviews independently on the basis of their respective theoretical frameworks and pre-understandings. In the next sequential step, an integrated analysis was made with the two researchers together, where the individual interpretations were compared and analyzed together to summarize our understanding from our respective perspectives and identify patterns and issues for further research. The meetings with management and the segment team were recorded by hand and reflected on in the same way.

The written materials included internal power-point presentations, structure and process descriptions as well as employee newsletters and annual reports which were equally analyzed by respective researcher, independently and jointly in an iterative process. The written material also included a separate study of actors within the value chain of the focal company, primarily 2nd customers.

As our approach on the one hand provides an opportunity for a holistic and in-depth richness and learning, for the researchers as well as the focal company, it is also accompanied with a number of risks. The multi-theoretical perspective and the single-case study give room for questions about our ability to follow a stringent research approach and/or reach conclusions of interest not only for practice but also for academia. In combining action research with the abductive approach, in referring to (and questioning) our own pre-understanding and relevant theoretical and empirical sources, and through describing and publishing our actual research process (Olsson & Olander 2005), we have strived to eliminate the risks.

The interviews were conducted over a period of four months, preceded by initial meetings and review of the written material, and followed by our participation in two segment meetings covering a total of 1,5 years in 2004 – 2005. The findings and reflections below are the point of departure for a continued action research process.

Identifying the challenges

The findings of our study are summarized in four themes and identified as challenges to re-defining the supply chain for increased customer orientation and innovative product development. These are described below as *Domineering Perspectives*, *Tools and Processes*, *Strategy and strategic decision*, and *Implementation approach*. With a single theoretical perspective it is likely that only one or two of these themes would have emerged. Using a multi-

theoretical perspective we have aimed at a more holistic approach hence illuminating the multitude of factors that come into play when aiming to increase customer orientation and innovative product development. The four themes that have emerged from reflecting on our findings in practice and theory are presented and elaborated below.

Domineering perspectives

Customer orientation is a key concept of the focal company who serves nearly 1000 customers, mainly converters of paper bags, boxes, cartons and more. But however important a concept: *“We have to put less focus on our machines and more focus on our market – we need to focus on value rather than production capacity and tonnage”* as expressed by one manager. From a supply chain perspective the management aimed at putting the customer as a primary driver rather than the manufacturing and logistics processes, hence turning it into a “demand” rather than a “supply” chain (Mason et al. 2006).

However, and in spite of a widespread understanding of the changes within the supply chain and the need for increased customer orientation, emphasized in the redefining of their supply chain, the way forward was not so simple. The focus on production, rather than customers and future potential of products and services, prevailed. *“There is a lot of brainstorming in the product development council, especially with regard to the production process and less regarding products”* and *“there is an instinctive no to new (product) ideas”* as expressed by two interviewees.

The studied segment was struggling to implement the new strategy and taking their initial steps of analyzing their value chain and preparing for road shows. Few in the segment had as of yet a clear idea of who represented 1st or 2nd customers. Or what their needs, or priorities, were: *“Our focus on customers is clearer but I don’t really know what it means”* as expressed by one member of the segment.

The interviews further revealed that the members of the segment team did not fully share the management’s view of their segment’s future potential or the focus on 2nd customers: *“we are to find new arguments for paper within our segment and adjust these to our 1st and 2nd customers, but the 2nd customers aren’t necessarily more important, and I wonder if it is even motivated for our segment”* and *“Focusing on 2nd customers rather than our existing customers - are we really to invest energy in this?”*.

In a preparation meeting for the road show with 2nd customers the segment’s intentions voiced were more in the lines of a “search” than a “show”. The presentation that was being developed demonstrated their current product offering, and the questions prepared concerned the customer’s purchase process rather than their concerns, needs or development process. The actual road show ended up being one meeting with one 2nd customer, not followed by any particular feed-back to other relevant segment groups or initiatives on how to proceed. And the work with the value chain was moving slowly.

Findings from a study among 2nd customers (food producers) in the value chain of the focal company show that the cooperation or contacts with the paper packaging industry is indeed very limited whereas the relationship with plastic producers is described as much more active on behalf of the producers (Berglund & Hallbergson 2005). The perspective on customers and ways of working within the focal company is very much in line with that of its’ position in the supply chain and its’ industry where traditionally the production rather than the customers have been the primary driver and area for improvements (Berg 2005). The instinctive no to new ideas, and the struggle to consider, or work with, other actors than the organization is accustomed to, are

common in large and mature organizations where the existing business is often privileged over new (Bessant et al. 2005; Dougherty & Hardy 1996). This approach seemed to prevail within the focal company in spite of the focus put on increased customer orientation and innovation.

In theory, customer orientation and its' importance for business success has been thoroughly debated, covering disciplines from marketing and product development to strategy and supply chain management. Slater and Narver (1998) distinguish between two forms of customer orientation: customer-led and market oriented. Customer-led orientation means satisfying customers expressed needs, is reactive in nature and short term in focus. Market orientation on the other hand is proactive in nature and focused on understanding and satisfying customers' expressed as well as latent needs in the long term, and argued to be essential for long term success.

However, the real difference between a customer-led and market oriented organization lies in behaviours that are "bedrock values" for the businesses that are market oriented. "*Their commitment to continuous market learning, to discovering latent needs and unserved markets, and to organization-wide mobilization of resources, enables them to achieve market-focused innovation and to sustain competitive advantage in all types of markets*" (Slater & Narver 1998, p.1005). Hence market orientation requires not only a strong customer focus and particular ways of working but also commitment and certain values. If a market orientation is to be achieved within the focal company the current perspective has to be altered.

However, market orientation is synonymous with dynamic markets and fast moving technology or consumer products (Jenster & Jaworski 2000; Slater & Narver 1998), far from the paper packaging industry. It raises the question as to what customer orientation really means for an actor upstream in the supply chain. Is it to be "customer-led" or "market oriented", or is the way forward for the paper packaging industry in between the two? An inquiry into what customer orientation and product innovation actually means and what it entails could be a crucial step in rendering the current perspective visible and highlight the need for, and the difference of, a new perspective – both in practice and in theory. To question the domineering perspective in practice does not mean that it is wrong per se or that it needs to be given up completely but can help in further understanding of the assumptions and behaviours which in turn might lead to a new or altered perspective and ways of working (Jacobs & Heracleous 2005; Markides 1997; Dougherty & Hardy 1996). Hence, the first challenge is related to the domineering perspective inherent within the focal company but also within theory.

Tools and processes

One of the important aims with the new strategy of the focal company is to allow for a more creative and innovative product development process, to actively participate in solving the customers' packaging problems and create new demand, pull instead of push – to offer "*innovative packaging paper of high quality*" and "*innovative packaging solutions in selected segments*". The segment teams are one important step, being given the overall responsibility for customer orientation and product development, mixing technical and marketing competence: "*The new thing is that we are developing our ways of working which will also allow us to take yet another step forward*" as expressed by one manager in the employee newsletter.

To organize product planning and development into cross functional groups corresponds well to theories established by several authors as to be instrumental for successful product development (Adams et al. 1998; Lagnevik et al. 2003; Pinto & Pinto 1990; Stalk et al. 1992). A dynamic interchange and collaboration between different departments, or competences, such as

technology and marketing is shown to yield improved product development and innovation and to be a crucial factor for market orientation (Jenster & Jaworski 2000; Kahn 1996; Mintzberg & Quinn 1992; Lagnevik et al. 2003). Hence, the focal company's cross functional segment structure is one step in the right direction for achieving and sustaining market orientation and a more innovative product development. However, other prerequisites were missing.

One immediate issue for the segment team was how to identify their customers' actual needs: *"the purpose is clear but the ambitions are on a dream level as is the time for implementation...it is harder than one thinks to find information about customers"* and *"Our customers do not have the ability to readily express their needs or demands – we have taught them our language"* as stated by two interviewees. So far the focal company's market and customer information had been based on the internal database for customer contact information and sales reports, customer surveys (in accordance with ISO 9000), market surveys as well as personal and on-going contacts with long term customers among those responsible. But the existing information on customers, from for example the sales corps, was not perceived as readily available *"we have to hunt reports from the sales guys to find out what happens at the customer end"* as expressed by one member. Many of the interviewees expressed a lack of information and know-how on how to move forward, as well as a limited direct access to customers, not least 2nd customers.

Furthermore the actual product development process is not fully conceptualized and there is no definition of what is to be regarded a new product: *"we are to launch X number of products each year but I do not know what defines a new product"* or *"What defines a new product is buoyant. The market team decides, also considering the production capabilities"* as expressed by two segment members. There is also an identified lack of resources for product development in terms of access to test production. And there are no routines in place for evaluation and prioritization of new product ideas or the development process.

To help achieve the innovative climate sought for and a successful new product development process, one step is to implement a formal and disciplined approach, or blueprint. Research shows that the reason why companies often fail is because they do not undertake the initial 'front-end' activities or because they lack all together a formal, step by step development process. On the contrary many success stories are related to when there is a disciplined approach from idea to launch, including activities such as sourcing of ideas, market studies, sharp and early product definitions, project planning, executive reviews, prototyping and test manufacturing (Cooper & Kleinschmidt 1993; Deschamps & Nayak, 1995; Khurana & Rosenthal 1998). Furthermore, a combination of 'stage setters' such as appropriate goals and empowerment, together with 'enablers' such as team leadership, sufficient decision-making power and top management support, when needed, are important steps besides the interdepartmental cooperation (McDonough III 2000).

However organizations must also must make resources available and, except for providing collaborative structure, also enhance processes for creative problem solving. To gain the full benefit of productive friction that might occur when people with diversified knowledge solve problems, companies must establish processes to be able to reflect on and learn from the practices emerging from this collaboration. This can be made through recognizing patterns and increase awareness of solutions across related groups (Dougherty 1992; Hagel III & Brown 2005).

The learning process and the process of know-how accumulation are important cornerstones for market orientation and innovation, involving elements of internal and external learning (Rothwell 1994; Slater & Narver 1998). In addition to interdepartmental links, and relevant tools – established links to other organizations, such as to customers, will affect the

outcome of innovations (Tidd 1995). Links which the focal company was struggling to establish in spite of 2nd customers welcoming improved co-operation with actors upstream in the supply chain (Berglund & Hallbergson 2005). The new customer perspective within the focal company and the new segment structure did not automatically improve these links. In practice and supported by theory, the focal company's experienced lack of definitions, tools and processes poses a second challenge to the implementation of the company's strategy. Hence, complementing the segment team structure with new ways of working and a development of necessary tools and processes (as suggested by research or developed by the focal company itself) could provide for a better platform for increased customer orientation and a more innovative product development.

Strategy and strategic decisions

The focal company's strategy is best described as an effort to combine cost leadership and differentiation to use Porter's terminology (1985). At the time for our study the wish to differentiate the company was clearly expressed: *"we are to be different from other companies within the paper industry – we should focus on niche rather than commodity"* as stated by two managers. The focus was put on product innovation while at the same time management was expressing the wish to find a new value proposition or a new role in the value chain.

Meanwhile, a new organization-wide project was launched with the aim to substantially reduce overall costs and establish a more standardized, unified, way of working. This, in addition to the history of the company having focused on productivity and rationalising the business, created confusion as to the strategic direction of the company, whether the company was to be a commodity or a niche player in the future, or both: *"the company must decide where its going – are we to produce paper and aim for low prices or are we to deliver packaging solutions which will cost more money initially"* as expressed by one interviewee, or *"...we have to decide if we are to produce quantities of paper at low prices or deliver solutions for packaging, which in turn requires an investment initially..."* as expressed by another. The developments created a number of questions on how the work with increased customer focus was to be understood, or proceeded with, and what was to be prioritized in terms of product development. And furthermore what the strategy of the company really was?

Linking customer orientation and incorporating innovation as a meaningful component of the business strategy of the organization are crucial for new product development as well as sustained product innovation (Dougherty & Hardy 1996; Khurana & Rosenthal 1997). According to Frambach et al. (2003): *"Understanding the links between a firm's market orientation and its underlying business strategy is critical to understanding how an organizations-wide commitment to markets can be created or, conversely, how this commitment may fail to arise in a firm"* (p. 379). Their findings show that a differentiation strategy has a positive effect on customer orientation and greater customer orientation leads directly to increased new product activity. Cost leadership, on the other hand, show a greater competitor orientation which in turn has a negative direct effect on new product activity.

Hence, the focal company's efforts to become more customer oriented and provide for more innovative product development is hampered or facilitated by the actual business strategy, and/or the decisions shaping the strategy.

However, conditions for product development and innovation are often found to be poor in large, established firms (Dougherty 1992; Dougherty & Hardy 1996; Lagnevik et al. 2003; Moore 2004). The further a company is on its life cycle, and the more successful it has been, the

harder it is to focus on new types of innovation. To overcome the challenges organizations must introduce new types of innovation while at the same time deconstructing old processes and organizations. When developing the future competitive advantage the focus should be on the innovation team sponsored by management. The deconstruction on the other hand should focus on productivity rather than differentiation but both steps should be carried out simultaneously (More 2004).

In spite of the focal company's efforts to combine cost leadership and differentiation the decision mentioned above seems more focused on cost-leadership than differentiation. The "simple" answer then, for the focal company, might be to clarify their strategic intent of doing both.

However, clarifying the strategy might not be enough. The suppositions above made by Frambach et al. (2003) are based on the behavioural view of market orientation – from the perspective that strategy influences market orientation. Market orientation is also conceptualized in literature from a cultural view. The cultural view considers market orientation as a set of organization-wide shared values and norms that reflect expectations about specific behaviours, to actual market-oriented behaviours themselves (Deshpandé & Webster 1989; Frambach et al. 2003; Homburg & Pflesser 2000). In the cultural view, the organization's values will influence an organization's market orientation, and hence innovation, rather than the intended strategy. The question on what influences what is also echoed in the on-going debate within the business strategy field itself as there is not *one* clear definition or even agreement among scholars on what strategy really is (Markides 2004; Whittington 1997). Whether it is a position as suggested by Porter (1985) or "*...a deeply entrenched perspective which influences the way an organization develops new ideas, considers and weights options, and responds to changes in its environment*" (Mintzberg & Quinn 1992, p. 177).

Hence, the third challenge that we have identified in practice is the formulation of strategy itself – here being that of both cost and differentiation – and the impact of the strategy, or rather the *understanding* or *perception* of the strategy, in relation to the objectives for customer orientation and new product activity. In the case of the focal company, the question emerges as to whether it is their intended strategy that will determine its' strive towards customer orientation and innovative product development or whether it is the organization's values and norms of behaviour as suggested above. The answer to an inquiry into this issue will in turn have an impact on the focal company's process of change, whether it is a matter developing and implementing a more stringent strategy or addressing the values inherent in the company's domineering perspective.

Implementation approach

A fourth theme emerged which is linked to the implementation process of the strategy. The work within the company had been gradual: "*first we took care of the productivity and the quality of our products, now we can focus on customers*" to quote one manager. The strategy itself, and the structure with regards to segment teams, had been developed by the management team. "*We did the job, and in the strategy was a description on what we expected...*" as expressed by one manager. But, the communication and introduction of the increased customer focus and segment structure was understood differently in the organization, and did not create the commitment management had hoped for.

After the initial information meeting, held by management, three different interpretations flourished regarding the presented changes: A completely new way of working, or, something put

on top the existing organization, or, a mix of both. “*When we came out of the meeting the three product area managers had completely different views on what was to be done*” as expressed by one interviewee. This manifested itself in the daily work within the segments which was going at different speeds and directions. In the studied segment there were particular expressions of uncertainty and doubt as to the new changes and direction, and the meaning thereof, as expressed by one segment member “*we do not invent products – we solve customer problems*” or “*we are to launch X number of products each year but I do not know what defines a new product*”.

From a classical perspective on strategy, and a behavioural view of market orientation, the management team of the focal company had acted in accordance with the schoolbook. But from other schools of thought within strategy it can be said that the strategy process per se was wrong from the very outset, subsequently hindering innovation and customer orientation – both in terms of the chronicle order of steps as well as the involvement or non-involvement of relevant employees in the planning phase. The classical approach regard strategy formulation and implementation as two separate measures where implementation is performed top-down, and where structure follows strategy. The processual approach will regard formulation and implementation as two interlinked phenomena where actual implementation may constitute the formulation and the implementation is a joint process of bargaining and learning (Mintzberg 1994; Porter 1985; Whittington 1997).

From a supply chain and product innovation perspective the management team’s aim to move from push to pull can be compared to moving from the traditional perspective of a supply to a demand chain, or ‘technology-push’ to ‘market-pull’. That in turn requires a more processual approach to customers, product design strategy, organizational structure and more, not least with regard to planning and decision making involving more than the management (Dougherty & Hardy 1996; Mason et al. 2006; Rothwell 1994; Vonderembse et al. 2006). The implementation of the segment teams within the focal company was regarded by many of the interviewees as something put on top of the existing organization and processes for idea exchange were not familiar. Furthermore the former product development organization was kept, including local product development groups at respective manufacturing unit, along with one joint development council which was confusing the view of the product development process, as well as the ownership of the goals for product development as suggested by Stewart (1995). Ideally, the cross-functional teams should be involved and actively participate in the planning, implementation and development process (Dougherty & Hardy 1996; Thieme et al. 2003).

Hence, in practice the implementation process is identified as a fourth challenge to the new strategy and strategic direction. A number of questions are raised and uncertainties expressed with no process, or tradition, for discussing or managing these issue which in turn lead to activities which were supporting the old rather than the new strategy. In theory, different schools suggest different approaches to implementing strategy. However reflecting on all challenges identified above, a more processual approach would likely have allowed for a better way to manage the challenges identified.

Reflection on findings and identified challenges

The aim with this paper has been to explore, identify and increase the understanding of the organizational challenges of re-defining the supply chain for increased customer orientation and innovative product development. The findings are summarized in four themes and described above as *Domineering Perspectives, Tools and Processes, Strategy and strategic decision, and Implementation approach*.

Using a multi-theoretical perspective we aimed at a more holistic approach thereby illuminating the multitude of factors that come into play when aiming to formulate and implement a strategy to increase customer orientation and innovative product development.

In theory, from the perspective of change, scholars point at the need for more comprehensive and holistic scope when initiating change: from addressing parts of an organization to addressing more encompassing patterns and wholes, and for change to be continuous and not only a one-of event (Marshak, 2002).

For practice, however, a more holistic approach increases the complexity. When reflecting on these findings together with the focal company, each theme, or challenge, was acknowledged per se. However the whole spectrum and the relationship between them were not counted for in practice, as in theory (Frambach et al. 2003). The questions that emerge for practice, and theory, concern the order of influence of the challenges and the process needed to address the challenges in practice without losing the efficiency needed in the world of businesses.

Suggestions for practice and future research

Based on our findings we suggest (where possible) a continued action research process, or qualitative approach, to further contribute to the understanding of challenges to re-defining the supply chain for increased customer orientation and innovative product development, and *how* these challenges could be managed. When identifying and reflecting on the challenges above we have proposed measures such as: an inquiry into what customer orientation and product innovation actually mean, a development of necessary tools and processes, clarifying the strategy or identifying the values guiding the strategy and a processual implementation approach.

Beer et. al (2005) suggest a continuous and structured process for strategic implementation which takes account of both hard and soft issues, and provides an analytic as well as emotional framework where dialogue, honest feedback and communication are important cornerstone. Using dialogue as a tool is further suggested as the (one) way to render underlying assumptions visible, to handle the one often identified barrier to change and strategic innovation, namely mental models. A process of constructive and structured dialogue per se is also suggested to be key for strategic innovation as it requires shifts in existing mental models of organizational actors that underlie the overall strategy paradigm of a firm (Jacobs and Heracleous, 2005, Markides 1997).

The action research process will allow for studying the process of change itself and further elaborate suggestions on *how* the identified challenges can be better understood and managed. Hence, we suggest further research – or steps for practice – where a process of inquiry or dialogue is at the heart of the study, or the internal process, to further increase the understanding of the challenges and how these can be met, hence improving the knowledge on how to bridge the gaps – in theory and in practice.

- How can identifying and addressing challenges to increased customer orientation and innovative product development be managed and benefited from?
- What are the main drivers among the identified challenges – is it domineering perspectives, values and norms of behaviour or is it the strategy, the structure and/or the tools and processes.
- How will identifying and rendering challenges visible impact a (continued) process of change?
- What are the prerequisites for and consequences of a process of inquiry and dialogue?

We would also suggest using the supply chain perspective as it is embraced by many organizations due to its' focus on the entire value chain and due to the fact that it in itself is moving from a linear construct with definite starting and ending points, to systems, or wholes where the main drivers are shifting (Cox 1999; Normann 2001; Vonderembse et al 2006). Using a familiar construct might simplify an understanding and implementation of a change process and at the same time the supply chain perspective offers a multi-theoretical approach which we would argue to be relevant for organizations trying to move from one perspective to the other.

Conclusions

In our study we have focused on the organizational challenges to re-defining the supply chain, formulating and implementing a strategy, for increased customer orientation and innovative product development within a paper packaging industry. The study of the focal company gives at hand a number of challenges, specific to the subject of our research. However, there is enough evidence from industry experts (Berg 2005; Hayhurst 2002) that lead us to suggest that our findings are not specific to the particular company.

In conclusions we have identified four challenges summarized in four themes: *Domineering perspectives*, *Tools and processes*, *Strategy and strategic decisions* and *Implementation approach*.

For practice we argue that these findings are important, not least, when considering why and *how* to re-invent or re-comprehend existing business assumptions, models and tools. For theory, we argue that there is more to be achieved in identifying these challenges and in studying the bridging process itself – how to make the transition from push to pull, from cost to value, from production to customer focus.

The limited research on the link between strategy, customer orientation and new product activity together with our findings further point to the need for the multi-theoretical perspective and a more holistic approach for understanding the complexity of organizational challenges in practice and for the generation of theory. Not least as to *how* similar challenges can be managed.

References

- Adams, M. E., Day, G. S., & Dougherty, D., 1998. Enhancing new product development performance: An organizational learning perspective. *Journal of Product Innovation Management*, 15 (5), 403-422.
- Alvesson, M. & Sköldböck, K., 1994. *Tolkning och reflektion - Vetenskapsfilosofi och kvalitativ metod*. First edn. Studentlitteratur, Lund.
- Beer, M., Voelpel S.C., Leibold, M. & Tekie, E.B., 2005. Strategic Management as Organizational Learning: Developing Fit and Alignment through a Disciplined Process. *Long Range Planning*, 38 (5), 445 – 465.
- Berg, P., 2005. Are you really customer focused. *PPI* 47 (6), 64.
- Berglund, J. & Hallbergson, M., 2005. En analys av faktorerna som berör beslutsprocessen för flexibla förpackningar. Master thesis, Department for Design Sciences, Division of Packaging Logistics, Lund University, Lund.

- Bessant, J., Lamming R., Noke, H. & Philips, W., 2005. Managing innovation beyond the steady state. *Technovation* 25 (12), 1366-1376.
- Bryman, A., 1989. *Research methods and Organizations Studies*. Reprint 1995. Routledge, London.
- Christopher, M. & Gattorna, J., 2005. Supply chain cost management and value-based pricing. *Industrial Marketing Management* 34 (2), 115-121.
- Christopher, M. & Towill, D.R., 2000. Supply chain migration from lean to agile and customised. *Supply Chain Management: An international journal* 5 (4), 206-213.
- Cooper, R.G. & Kleinschmidt, E.J., 1993. Screening new products for potential winners. *Long Range Planning* 26 (6), 74-81.
- Cox, A., 1999. Power, value and supply chain management. *Supply Chain Management: An International Journal* 4 (4), 167-175.
- Deschamps, J-P. & Nayak P.R., 1995. Fomenting a customer obsession. *National Productivity Review* 14 (4), 89-121.
- Desphandé, R. & Webster, F.E., 1989. Organizational Culture And Marketing: Defining The Research. *Journal of Marketing* 53 (1), 3-16.
- Dougherty, D., 1992. Interpretive barriers to succesful product innovation in large firms. *Organization Science* 3 (2), 179-202.
- Dougherty, D. & Hardy, C., 1996. Sustained product innovation in large mature organizations: overcoming innovation-to-organization problems. *Academy of Management Journal* 39 (5), 1120-1153
- Dubois, A. & Gadde, L.-E., 2002. Systematic combining: an abductive approach to case research. *Journal of Business Research* 55 (7), 553-560.
- Frambach, R.T., Prabhu, J. & Verhallen, T.M.M., 2003. The influence of business strategy on new product activity: The role of market orientation. *International Journal of Research in Marketing* 20 (4), 377-397.
- Greenwood, D. J. & Levin, M., 1998. Introduction - Action Research, Diversity, and Democracy. In: *Introduction to Action Research - Social Research for Social Change*, SAGE Publications Inc, pp. 3-13.
- Gummesson, E., 2000. *Qualitative Methods in Management Research*. Second edn. Sage Publications, Inc, California.
- Hagel III, J. & Brown, J. S., 2005. Productive Fiction - How Difficult Business Partnerships Can Accelerate Innovation. *Harvard Business Review* 83 (2), 82-91.
- Hayhurst, D., 2002. Valuing the customer's voice. *Paperloop*, August 2002, 25-27.
- Homburg, C. & Pflessner, C., 2000. A multiple-layer model of market-oriented organizational culture: Measurement issues and performance outcomes. *Journal of Marketing* 3 (4), 449-462.
- Jacobs, C. D. & Heracleous, L.Th., 2005. Answers for questions to come: reflective dialogue as an enabler of strategic innovation. *Journal of Organizational Change Management* 18 (4), 338-352.
- Jenster, P.V. & Jaworski, B., 2000. Driving forces in market orientation: a study of industrial firms. *Strategic Change* 9 (6), 357-362.

- Kahn, K.B., 1996. Interdepartmental Integration: A definition with Implications for Product Development Performance. *The Journal of Product Innovation Management* 13 (2), 137-151.
- Khurana, A. & Rosenthal, S.R., 1997. Integrating the fuzzy front end of new product development. *Sloan Management Review*, 38 (2), 103-121.
- Khurana, A. & Rosenthal, S.R., 1998. Towards Holistic "Front Ends" In *New Product Development*. *The Journal of Product Innovation Management* 15 (1), 57-74.
- Lagnevik, M., Sjöholm, I., Lareke, A., & Östberg, J., 2003. *The Dynamics of Innovation Clusters*. Edward Elgar Publishing Limited.
- Markides, C., 1997. Strategic Innovation. *Sloan Management Review* 38 (3), 9-23.
- Markides, C., 2004. What is strategy and how do you know if you have one. *Business Strategy Review* 15 (2), 5-12.
- Marshak, R. J., 2002. Changing the language of change: how new contexts and concepts are challenging the ways we think and talk about organizational change. *Strategic Change* 11 (5), 279-286.
- Mason, K., Doyle, P. & Wong, V., 2006. Market orientation and quasi-integration: Adding value through relationships. *Industrial Marketing Management* 35 (2), 140-155.
- McDonough III, E.F., 2000. Investigation of Factors Contributing to the Success of Cross-Functional Teams. *The Journal of Product Innovation Management* 17 (3), 221-235.
- Mintzberg, H., 1994. *The rise and fall of strategic planning*. Prentice Hall International (UK), Hertfordshire.
- Mintzberg, H. & Quinn, J.B., 1992. *The Strategy Process – Concepts and Contexts*. Prentice-Hall International Editions.
- Moore, G.A., 2004. Darwin and the Demon: Innovating Within Established Enterprises. *Harvard Business Review* 82 (7-8), 86-92.
- Normann, R., 2001. *När kartan förändrar landskapet*. Liber.
- Olsson, A. & Olander, M., 2005. Multitheoretical perspectives in an abductive action research study. *Conference Proceedings NOFOMA 2005* edn, B. Gammelgaard & T. Skjøtt-Larsen, eds., Copenhagen.
- Pinto, M. B. & Pinto, J. K., 1990. Project Team Communication and Cross-Functional Cooperation in New Program-Development. *Journal of Product Innovation Management* 7 (3), 200-212.
- Porter, M. E., 1985. *Competitive advantage, Creating and Sustaining Superior Performance*. The Free Press, New York.
- Rothwell, R. 1994. Towards the Fifth-generation Innovation Process. *International Marketing Review* 11 (1), 7-31.
- Rundh, B., 2005. The multi-faceted dimension of packaging – Marketing logistic or marketing tool. *British Food Journal* 107 (9), 670-684.
- Slater, A.F. & Narver, J.C., 1998. Customer-led and market-oriented: Let's not confuse the two. *Strategic Management Journal* 19 (10), 1001-1006.
- Stalk, G., Evans, P. & Shulman, L. E., 1992. Competing on Capabilities - the New Rules of Corporate Strategy. *Harvard Business Review* 70 (2), 57-69.

- Stewart, B., 1995. Packaging as an Effective Marketing Tool. Pira International, London.
- Stuart, I., McCutcheon, D., Handfield, R., McLachlin, R. & Samson, D., 2002. Effective case research in operations management: a process perspective. *Journal of Operations Management* 20 (5), 419-433.
- Thieme, J. R., Song, X. M. & Shin, G.-C., 2003. Project Management Characteristics and New Product Survival. *Journal of Product Innovation Management* 20 (2), 104-119.
- Tidd, J., 1995. Development of Novel Products Through Intraorganizational and Interorganizational Networks - The case of Home Automation. *Journal of Product Innovation Management* 12 (4), 307-322.
- Vonderembse, M. A., Uppal, M., Huang, S.H. & Dismukes, J.P., 2006. Designing supply chains: Towards theory development. *International Journal of Production Economics* 100(2), 223-238.
- Whittington, R., 1997. What is strategy and does it matter. International Thomson Business press, London.

Appendix 1. Table of Interviewees

1	Member of the Board of Directors
2	President and CEO
3	Senior Vice President Marketing Director Paper
4	Senior Vice President Technical Director and Mill Manager (Plant A)
5	Product Area Manager and Manager Segment I
6	Manager Product Technology (Plant A), member Segment I
7	Product development engineer (Plant A), member Segment I
8	Technical Customer Support (Plant B), member Segment I
9	R&D Manager (Plant A)
10	R&D Manager (Plant B)
11	Production Manager (Plant B)
12	Manager Product Development (Plant B), member segment III
13	Technical Customer Support (Plant A), member Segment II
14	CEO and Manager Sales, European subsidiary

Paper II

Challenging the strategy paradigm within the paper packaging industry

Malin Olander Roesé

Lund University, Department of Design Sciences, Division of Packaging Logistics

Box 118, 221 00 Lund, Sweden

Telephone: +46 46 222 9701

Email: malin.olander@plog.lth.se

Annika Olsson

Lund University, Department of Design Sciences, Division of Packaging Logistics

Box 118, 221 00 Lund, Sweden

Telephone: +46 46 222 9734

Email: annika.olsson@plog.lth.se

Abstract

Formulating and implementing a new strategy may be a challenging task, especially if it alters the way in which a company has operated and positioned itself before. This may be particularly true for companies within the forest industry, like manufacturers of paper packaging products, pursuing differentiated customer value and innovative solutions where, traditionally, success has been measured in volume and relative position on a cost curve. In theory there are different schools of thought and approaches on how to go about formulating and implementing strategy. In practice, going through strategic change may create a need to embrace new ways of thinking and acting in order to close the gap between formulation and implementation, between knowing what to do and doing it. This gap, particularly the interdependence between formulation and implementation in the context of change between strategies of different schools and assumptions, merits more attention in literature. The purpose of this paper is to contribute to the understanding of strategic change, illustrating a change process of formulating and implementing a strategy through the lenses of schools of strategy and cognitive research. The purpose is also to suggest areas for future research and practical guidance for organisations aiming to break away from a reigning strategy paradigm in search for new ways to compete. Based on a longitudinal case study of Billerud, a Swedish world-leading manufacturer of paper packaging material, two propositions are suggested for future research and practical guidance for managers when formulating and implementing strategic change. Firstly for an organisation going through strategic change, understanding the assumptions behind different strategic intents and the link between a chosen strategy and critical core activities, capabilities and culture is a prerequisite to enable a transition. Secondly, strategic change is enabled through an iterative and probing approach between formulation and implementation which considers knowledge and learning of new concepts, activity and culture as situated.

Keywords: strategic change, strategy implementation, customer orientation, innovation, paper packaging industry

Acknowledgments: The authors would like to express their deep gratitude to Billerud: the interviewees and those involved in facilitating this research, for sharing their experiences, giving feed-back and for allowing our findings to be communicated. We would also like to extend a warm thank you to the anonymous reviewers for their very constructive comments on how to improve earlier versions of this paper. Finally, we would like to acknowledge the Bo Rydin Foundation for financing the research.

1 INTRODUCTION

Research shows that "...despite the enormous time and energy that goes into strategy development at most companies, many have little to show for the effort" (Mankins & Steele, 2005, p. 66). The source of this shortfall may lie in the actual planning and formulation of strategy, in the implementation and execution of strategy, or both (Porter, 1996; Collins & Porras, 1996; Gadiesh & Gilbert, 2001; Kim & Mauborgne, 2004; Mankins & Steele, 2005; Kaplan & Norton, 2007; Johnson, Christensen, & Kagermann, 2008; Neilson, Martin, & Powers, 2008; Porter, 2008). In order to address these shortfalls solutions may be found in literature on strategy and management. However, knowing what to do is not the same thing as doing them.

In practice, setting out to formulate and implement a new strategy, particularly one that alters the way in which a company has operated and positioned itself before, may be a daunting task. This may be especially true for companies within traditional and primary industries, such as the forest industry, who have long competed on the premises of an industrial economy where transformation, standardization and production has been at the heart of business logic (Normann, 2001; Hayhurst, 2002). The transformation towards an economy where knowledge, innovation and customer value are guiding principles question that inherent logic. In such an endeavour, the strategy development process employed by many organisations may in itself be a deterrent for new value creation and innovation (Dobni, 2010). Not understanding the link between the organisation's strategy, market orientation and new product development another hurdle, which in turn has received limited attention in research (Frambach, Prabhu, & Verhallen, 2003).

In theory there are different schools of thought and approaches on how a company may go about formulating and implementing strategy. A company can, according to Porter (1985), achieve a competitive advantage through a distinctive way of competing, for example – through cost or through differentiation in relation to its competitors. This notion is completely rejected by the authors behind Blue Ocean who discard "...the fundamental tenet of conventional strategy: that a trade-off exists between value and cost..." (Kim & Mauborgne, 2004, p 82). The proponents of the ambidextrous approach argue similarly the need and success of companies who are able to exploit and explore at the same time (O'Reilly & Tushman, 2004; Sarkees, Hulland, & Prescott, 2010). Where generic strategies have an external focus for leveraging competitive advantage and position, the resource-based view emphasize internal capabilities and leveraging firm-specific (internal and external) competencies to compete or achieve the strategic intent (Hamel & Prahalad, 1993; Herrmann, 2005). Hence, the outcome of strategy and the process by which it is made will differ fundamentally depending on its' underlying assumptions (Whittington, 1997).

Herrmann (2005) argues that whereas Porter's models have helped firms analyse the industry and streamline their strategies in the last decades, firms now need new ways and models of creating and preserving knowledge and doing addressing the cognitive rather than analytical aspects of strategy. Normann (2001) calls for the need for combining conceptual thinking and action orientation which can be related to Pfeffer and Sutton's notions of reducing the gap between the knowing and doing (Pfeffer & Sutton, 1999).

The separation, or gap, between formulation and implementation of strategy has long been addressed and dismissed in literature (Mintzberg & Quinn, 1992; Cummings & Daellenbach, 2009). However, it remains an issue in practice (Mankins & Steele, 2005). Furthermore, research on the interdependence between the two (formulation and implementation), particularly in the context of change between strategies of different assumptions, merits more attention (Johnson, 1992; Mankins & Steele, 2005; Sull, 2007; Melnyk, Hanson, & Calantone, 2010). The Strategic change literature per se may provide the roadmap for the process (Kotter, 1995; Mento, Jones, & Dirndorfer, 2002), but does not necessarily address the strategies involved.

With a reference to different schools of strategy within literature, and findings within cognitive research, one company's journey from a predominant generic paradigm of cost towards a more differentiated, blue ocean or ambidextrous strategy is explored. The purpose of the study is to contribute to the understanding of strategic change, illustrating a change process of formulating and implementing a strategy through the lenses of schools of strategy and cognitive research. The purpose is further to suggest areas for future research and practical guidance for organisations aiming to break away from a reigning strategy paradigm in search for new ways to compete. The research is based on a longitudinal case study of Billerud, a Swedish world-leading manufacturer of paper packaging material.

The Swedish Forest Industry

The forest industry, the pulp- and paper and the wood mechanical industry, is one of Sweden's most important primary industries representing approximately 12% of the nation's GDP, export, and employment. The pulp- and paper industry is in itself the third largest in Europe with manufacturers of newsprint, printing and packaging paper, board and tissue. Manufacturers of pulp- and paper products such as Billerud are characterized by its' high-tech, capital intensive processes and products with a high knowledge content. Research and development within production and process efficiency are key while the development of new products with high value added have become increasingly important in meeting global changes of technology, competition from

emerging markets, and changing consumer demands. Structural development over the last three decades has nearly halved the number of production facilities but doubled the capacity and production of paper (The Swedish Forest Industries Federation, 2011; The Swedish Forest Industries Federation, 2012a; The Swedish Forest Industries Federation, 2012b).

2 STRATEGY: FROM THEORY TO PRACTICE – A THEORETICAL FRAME OF REFERENCE

The forest industry has in recent years, like other primary industries, found themselves in search for new ways to compete, challenging the conventional wisdom of its industry which in Porter's terms has had a homogenizing effect on competition (Porter, 1996). Industry experts have criticized the industry for its inability to develop strategically in a new direction due to stiffening structures and a lack of market orientation and entrepreneurship (Ottoosson, 2008; Beckeman, 2008).

Different schools and different strategies

For an organisation in search for a new way to compete there may be different routes. Historically and still today, Porter's theory on strategy and the classical, or generic, approach has a strong hold both in literature and practice (Whittington, 1997; Herrmann, 2005; Dobni, 2010). A company can according to Porter (1985) achieve a competitive advantage through a distinctive way of competing, for example through *cost* or through *differentiation* in relation to its competitors. Based on a unique and valuable position, strategy is then all about making trade-offs and deliberately choosing a set of activities (different to competitors) and create fit between all of them to deliver a unique mix of value. Different positions require different activities, hence the need for trade-offs especially in choosing what *not* to do (Porter, 1996).

The need for trade-off is however rejected by the authors behind Blue Ocean (Kim & Mauborgne, 2004) as "... the evidence shows that successful companies pursue differentiation and low cost simultaneously" (Ibid. p.82). The problem argued by the authors of blue ocean strategies is being stuck in the old belief that trade-offs are necessary. A blue ocean strategy is all about creating new uncontested market space, making rivals irrelevant, through value innovation – simultaneously pursuing differentiation and low cost. This is in line with the proponents of the ambidextrous approach who point at the need and success of companies who are able to exploit what they have, through increased cost efficiency, and explore new areas for innovation and growth, at the same time (O'Reilly & Tushman, 2004; Sarkees et al., 2010). Normann (2001) calls for a new business logic, the 'reconfiguration of value creating systems' with the critical competence being 'organisation of value creation' rather than production. Where the customer is a co-producer, and not the final destination at the end of a value-chain, which was synonymous with the 'industrial paradigm'. The resource-based view advocates a move away from the traditional concepts of competitive advantage. From creating 'strategic fit', to that of leveraging resources based on a 'strategic intent' (Hamel & Prahalad, 1989; Hamel & Prahalad, 1993).

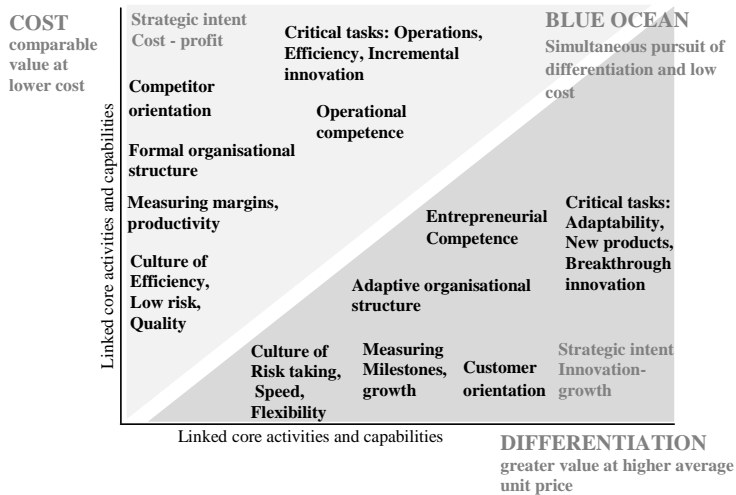
For organisations who originate from the industrial era, changing logic implies a dramatic conceptual and real change in how customers are viewed and how value is created (Hamel, 1996; Normann, 2001; Kim & Mauborgne, 2005). This, in turn, might require a new understanding and implementation of new concepts, competencies, tools and models. Research shows that for any organisation wishing to increase their customer orientation and innovation it is important to understand the link between these two, and strategy, and to know the relative impact of the actual strategy in relation to organisational values (Frambach et al., 2003; Dobni, 2010). "Understanding the links between a firm's market orientation and its underlying business strategy is critical to understanding how an organisations-wide commitment to markets can be created or, conversely, how this commitment may fail to arise in a firm" (Frambach et al. 2003, p. 379). This is in line with Dobni (2010) who argues that understanding the difference and the relationships between strategy and innovation is foundational to becoming innovative.

Despite the views of different schools of thought there is an agreement that creating fit between core activities and capabilities is the essence of strategy. Combining the 'whole' and not just focusing on one activity or one capability is advocated by Porter (1996) as well as the authors of Blue Ocean (Kim & Mauborgne, 2005) and Normann (2001). The more fit there is between company's critical tasks, resources and competencies as well as structure and culture, the more likely it is to achieve a competitive advantage (in Porter's terms), create a Blue Ocean, or be a prime mover (in Normann's terms). Different strategies then require a different mix to create fit. However, *how* these can be combined appears to be the issue.

With the aim to better understand the relationship and links between strategy and customer orientation and innovation, along with archetypal tasks, competencies, organisational structure and culture, a theoretical strategy landscape is proposed (see figure 1). Figure 1 is a summary of different schools of thought coupled with inherent characteristics of different strategies (Porter, 1985; Porter, 1996; Frambach et al., 2003; O'Reilly & Tushman, 2004; Kim & Mauborgne, 2005). Positioning dominant and contemporary schools of thought within strategy and management on the same map is naturally to simplify respective theory. The point here however is to visualize differences in theory and the potential challenges in practice. Without advocating one school or the other, the authors' proposed landscape aims to facilitate the understanding of relationships and links for an

organisation going through strategic change, moving from one end to the other, from cost to differentiation or aiming to combine both.

Figure 1: A proposed strategy landscape based on different authors and schools of thought within strategy (Porter 1985, Porter 1996, Frambach et al. 2003, O'Reilly & Tushman 2004, Kim & Mauborgne 2005)



Strategy in practice – from knowing to doing through learning in context

For any organisation, and particularly for a company seeking to break-away from a reigning approach, it may well be a necessary first step to question the assumptions behind the strategy, and the implementation process rather than adhering to a set of suggestions deriving from one particular school or author. Such an inquiry may be facilitated by an honest and fundamental questioning of the mental models or industry recipes that govern the behaviour of any individual or organisation in order to think of new ways to compete (Argyris & Schön, 1995; Markides, 1997; Jacobs & Heracleous, 2005).

Understanding the why before how is fundamental to closing the knowing doing gap (Pfeffer & Sutton, 1999), potentially more so when going through strategic change. From the perspective of learning and cognition (Brown, Collins, & Newman, 1989), closing a similar knowing-doing gap would furthermore require that individuals in an organisation learn, not just “learn about”, a new intended strategy and its’ prerequisites or inherent characteristics as suggested in figure 1. The failure to do so can be viewed as an error, a mismatch between what is intended and realized caused by individual and organisational defensive routines and theories in use, hampering learning (Argyris, 1989). One such routine is the separation of knowing and doing which we are taught from an early stage according to Brown et al. (1989). This can be compared with the criticism towards the classical approach within strategy for having separated thought from action, and the formulation and implementation of strategy (Mintzberg, 1994; Whittington, 1997; Harryson, 2000).

Brown et al. (1989) challenge the separation of *what* is learned from *how* it is learned and used through pointing at learning and cognition as fundamentally situated, i.e. a product of the activity, context and culture in which it is developed and used. Brown et al. (1989) propose three interdependent parts necessary for learning: *concept*, *activity* and *culture*. The authors argue that a ‘concept’, like the meaning of a word is always under construction and will continually evolve with each new occasion of use. They argue that knowledge can be compared to tools which can only be fully understood through use, through authentic, real, ‘activities’ which in turn are impossible to grasp unless they are viewed from within the ‘culture’ (Ibid. 1989).

Looking at strategy based on the notions of situated cognition one could view strategy as a tool (concept) which can only be fully developed and understood through implementation (real work activity) which in turn is dependent on the organisations culture (culture). Instead of focusing on what may hamper learning, the notions put forward by Brown et al. (1989) offer an interesting perspective on the prerequisites for *enabling* learning. In terms of formulation and implementation of strategy it is not only about the actual concept/-s of strategy ‘per se’ but also the way these concepts are understood and developed in ordinary activities and practices, in turn influenced by the organisation’s culture. Hence, introducing a strategy of differentiation in an organisation

previously focused on cost would require more than new definitions of, or tools for increased customer orientation and innovation. To enable practitioners to act meaningfully and purposefully one needs to be exposed to authentic activity, defined as the ordinary practices of a culture (Brown et al., 1989). In the face of change, the process of learning and enculturation is dependent on new systems of behaviour and belief, or cognitive apprenticeship as suggested by Brown et al (1989).

3 METHOD

The theoretical framework and empirical findings presented here stem from a qualitative and longitudinal case study from 2004 to the beginning of 2011 of one company within the Swedish forest industry named Billerud. Billerud is a world-leading manufacturer of paper packaging material with three main business areas: packaging and speciality paper, packaging boards, and pulp. The first two areas represent the main business with approximately 75% of net sales. The four mills, three located in Sweden and one in the UK, and more than ten sales offices serve 1000 customers in 100 countries. Europe is the core market, while emerging markets are growing. The selection of the case was based on the aim to contribute to the understanding of strategic change of a reigning paradigm why the type of industry, and particular company, proved suitable for the purpose together with access over a period of time (Stuart, McCutcheon, Handfield, McLachlin, & Samson, 2002; Gummesson, 2003). The unit of analysis is the strategic change under way and more specifically the managerial actions and decisions (Kim & Mauborgne, 2005) involved in this particular case for implementing a strategic change. The qualitative approach has allowed for capturing the individual perceptions of the studied change (Voss, Tsikriktsis, & Frohlich, 2002).

During the first two years of the study (2004 to 2005) the aim was to identify the challenges of implementing a new strategy (Olander-Røese & Olsson, 2007). In 2006, a new management team was put in place, and the strategy revised. The findings presented here are based on a comparison between the initial findings and the development within Billerud up to 2011 with the aim to contribute to the understanding of strategic change.

The empirical findings collected between 2006 and 2011 (in order to be able to compare the initial initiatives 2004 to 2005 reported on previously) are based on interviews, meetings/workshops and written material. Nine (9) in-depth and semi-structured interviews were performed with six, out of eight, individuals in the group management team and three individuals closely linked to prioritized strategic projects in the end of 2010. The interviewees in the group management team include the CEO as well as heads for packaging related business areas, production and business functions such as HR and R&D. The three individuals outside the group management were selected and interviewed based on their responsibility for technical development, business analysis and development and service development respectively. The interview guide comprised of issues covering: objectives and financial targets, strategy, customers/markets, products/services, innovation and development, implementation and control systems. The interviews were aided by four images with copied illustrations and text of the company's: Business idea, Strategy, Organisational structure and Value chain, from 2004/2005 and 2009/2010 respectively. The images were used to contrast the differences and similarities between the years and capture the interviewees' experiences and reflections on the changes. The illustrations and texts were collected from internal presentations and annual reports. Three meetings and workshops were held 2008 to 2011 with members of the group management team to prepare and reflect on previous research and new findings and propositions. Written material studied includes internal and external presentations, employee magazines, annual reports, press releases and media articles.

Through an abductive approach, an iteration between theory and empirical findings has been allowed for (Alvesson & Sköldbørg, 1994; Dubois & Gadde, 2002; Olsson & Olander-Røese, 2005). In analysing the empirical data from interviews and written material, qualitative content analysis has been applied (Patton, 2002). The interviews were transcribed and summarized with findings in the written material. This was followed by matching central events, decisions, actions, and experiences in relation to the themes identified in the initial phases of the study when four main challenges to the implementation of the new strategy were identified. Firstly "*Dominant perspectives*" referring to existing and predominant perspectives and ways of working with a strong focus on production rather than customer and potential market needs. Secondly "*Tools and Processes*" referring to a lack of definitions, tools and processes for market learning, new product development and innovation. Thirdly "*Strategy and strategic decisions*" referring to assumptions and actions guiding strategy and strategic decision not supporting the strategic intent. And last, the actual "*Implementation approach*" in itself which had led to breakdowns in communication (Olander-Røese, 2008). The analysis of the interviews was complemented with findings and content analysis of the written material on: particular events and focus areas, and descriptions of targets, strategy, markets, business areas, and developments of internal programs, systems and processes.

Different sources of data were used to ensure the quality of the case study at hand (Benbasat, Goldstein, & Mead, 1987; Yin, 2003). Furthermore a continuous dialogue with the case company has allowed for reflections on preliminary outcomes and final propositions suggested in this article. This was an important step in order to

validate the findings, or rather demonstrate reasonableness, credibility and truthfulness in practice as well as in relation to existing theory (Patel & Tebelius, 1987; Arbnor & Bjerke, 1994; Gummeson, 2000).

4 FINDINGS AND DISCUSSION: THE JOURNEY TOWARDS A NEW PARADIGM

Billerud was formed in 2001 through a merger of existing Swedish paper mills and introduced on the Stockholm Stock exchange. During the first years, much work was spent on coordinating the activities of the different mills. Synergies lead to increased production capacity and a significant rise in deliveries. In 2004 a new strategy was developed where *customer orientation* and *new product development* were important cornerstones. However, implementing the new strategy proved difficult due to the history and current strategy of the company. To further complicate the situation, weakening of the market conditions, and rising costs for raw materials and energy, brought the operating margin to negative levels in 2005.

Following the first attempt to institute the notions of 'customer orientation' and 'innovation', a new management team was formed between 2005 and 2006. Together with external expertise Billerud's objectives and strategy were revised anew. In 2010 the financial target of operating margin was reached for the first time. During the years in between, two issues of particular relevance to Billerud's journey, contribute to the purpose of this paper. Firstly, how to link and form new dominating ideas of customer orientation and innovation in relation to the current paradigm guiding the firm and secondly, how to implement relevant tools and models for innovation and business development.

Linking and forming new dominating ideas - Aiming to lead the future of packaging development

The central driving force for the new management team of Billerud was, and still is, to move away from a traditional paper-pulp supplier to a customer focused, solution oriented company. Revising the strategy anew in 2006 aimed to clarify that intent and enable a move from a position of competing on price, volume and 'receiving orders', to taking a proactive lead in the development of future packaging and packaging solutions. What was expressed as an aim to be *'the customer's first choice when selecting packaging paper'* in 2004 has evolved to the objective of leading *'the development of future packaging with a focus on function, design and sustainability'*. The main aim was to, in parallel, establish the two cornerstones of strategy being world class process efficiency and customer focused development.

Billerud's point of departure, or rather that of the founding mills', can be plotted to the left on the strategy landscape where operations, efficiency and incremental innovation were key (see figure 1). When Billerud first introduced the concepts of customer orientation and new product development in 2004, the link between these and strategy as suggested by Frambach et al. (2003) was not established. Limited attention was paid to what these terms actually entailed from the perspective of strategy, in addition to the practical and cultural prerequisites (Olander-Roese & Olsson, 2007).

Revising the strategy in 2006 clarified the strategic intent through addressing the assumptions behind and answering the 'why', before how, as suggested by Pfeffer and Sutton (1999). This was also coupled with decisions based on a cultural view (as opposed to a behavioural view applied by Frambach et al. 2003), seeing an organisation's culture rather than only strategy as influencing the organisation's market orientation and hence new product activity and innovation (Deshpandé & Webster, 1989; Homburg & Pflesser, 2000; Frambach et al., 2003). For Billerud the inherent 'industrial view' as phrased by Normann (2001) recognized by a culture in favor of process efficiency, low risk, and quality did not promote the exploring culture of risk-taking and flexibility sought for. As expressed by one interviewee *"...we have decided to embark on a journey which means we must maintain and increase our flexibility and our ability to respond to our customers in a way that is much clearer now than it was before, that puts a lot of pressure on production. Historically the industry, and us, have lived by the logic to produce as much as possible and sell what we produce, and it does not add up anymore"*.

One important decision to enable customer orientation, without reducing the focus on operational excellence, was to re-structure the organisation much in line with the ambidexterity approach suggested by Tushman and O'Reilly (2004) to enable exploiting and exploring simultaneously. In 2006 shortly after revising the strategy three business areas were formed. The intent was to clarify the organisational responsibility for *customer focused development and sales* on the one hand within the business areas, and the mills responsibility for *production efficiency and quality* on the other. The commercial responsibility, which had previously been with the mills, was placed with the business areas together with the development of new products and services. In doing so, Billerud has allowed for a new exploring culture within the formed business areas, and a strengthening of the existing culture of exploitation within the mills, of equal importance to ensure the quality and development of the production processes. As Billerud's strategy has evolved "culture, values and employees" has been added as an important cornerstone of strategy to further emphasize the building blocks paramount for achieving growth. However, fundamental challenges facing the new management team were that of 'back-selling', a term connected with approaching the customers' customer, and how to increase innovation.

The ring fight between operational excellence and customer development

When the decision was made to put more emphasis on 'customer orientation' already in 2004 it opened up for a new perspective, extending the scope beyond the primary customer (the converters) to also include the customers' customers: brand owners and retailers. The intent was not to move forward in the value chain e.g. through acquiring converting capacity. The intention was to move from a position of 'receiving orders' to taking a more proactive stance, finding other meanings of value than price per square-meter. This is in line with Normann (2001) who argue the need for a new business logic where "...true customer orientation means that one has to go beyond the direct relationship between oneself and one's customer to understand the relationship between the customers and the customers' customer..." (Ibid. p.71). However, embracing the brand owners and retailers, tapped on the deeply rooted taboo of 'back-selling' and was not regarded acceptable industry practice. Managing the ring fight between "productivity focus" versus "customer-sales focus" created a need for steps, solutions and a timeframe more suitable to Billerud's organisations than initially foreseen. Revising the strategy in 2006, giving new meaning to customer orientation and innovation has required learning, not just 'learning about', in the relevant context and through 'real' activities to enable implementation in line with the suggestions of Brown et al. (1989). For Billerud it was not only a matter of finding the right tools and processes for identifying market needs and developing new product or services. Challenging 'back-selling' involved risk-taking and a learning by doing approach much in line with the suggestions by Pfeffer and Sutton (1999). It also involved enabling a new mind set as suggested by Normann (2001) – not only within the organisation but also in the industry. Through intense communication in media and new innovative offerings, the image of Billerud today is that of a 'prime mover' to use Normann's terminology (Normann, 2001). That image may be stronger outside than inside the company but has helped the company's re-positioning on the market as well as in strengthening the strategic intent internally.

Within the organisation, what in 2004 was perceived as a decision "put on top" of the regular tasks performed, has become part of the daily activities within the business areas set up to work with customer focused solutions. One of the contributing factors in this process was recruiting competence with experience from working with brand owners and retailers. With support from the management team, and individuals in charge, second customers were approached. The first attempts were by no means a success. However, through a determined and yet tolerant trial and error approach, valuable market intelligence was gathered and relations with new actors created. One of the interviewees recalled one of the first attempts to approach retailers "...we met with retailer X, the heads and all, well prepared, presented our paper and our environmental approach and their response was: 'guys, we don't buy rolls of paper, we buy packaging. So please come back when you have thought this over and have something to offer.' So we did that and realized it is the packaging solution that is the key issue." The reaction from primary customers, the converters, was not that of back-selling but rather a positive response to the value that Billerud was able to contribute to them, in what has become a joint effort in satisfying the needs and expectations of brand owners and retailers. For Billerud the feedback process from talking to retailers and brand owners has become lead generators in the company's own development of new products and service solutions. Today, customer based solutions account for approximately five percent of the turnover with the intention to be five folded.

Exploring and situating the concept of innovation

Introducing the idea of 'innovative packaging solutions' in 2004 led to a need for new tools and processes which, at the time, were not familiar to the organisation. With the revised strategy in 2006 a number of potential areas for innovation were identified and the achievements that followed can be understood through the prerequisites for situated cognition, or enabling not only knowing but also doing (Brown et al., 1989; Pfeffer & Sutton, 1999). Firstly, the term innovation itself was addressed in the context of Billerud with its' overriding strategic intent and different organisational cultures enabled through the new organisation. The term in itself was found inhibiting for many years and extensive work was put into defining and putting in place an interpretation and way of working suitable for Billerud, where previously development had been much tied to the production processes improving efficiency and the quality of the paper. Similar to other interviewees one explained the management's work with innovation: "I would like to say, or rather what we want innovation to be..., we've struggled with the term, it is a rather intimidating concept, there are so many different views on what innovation is. So we have chosen to describe it in three areas, where we believe we contribute, where we aim to develop our strengths."

Debating and testing resulted in three focus areas: radical business development, customer driven product development and customer relations including events and workshops. In practice Billerud has worked with parallel instead of sequential processes, developing and testing the same ideas and solutions on the market simultaneously, with the result of launching innovative packaging solutions with registered trademarks. The move would not have been possible without the fundamental and deep-seated knowledge of the paper within the organisation, combined with a competent and flexible approach of test-runs and trial and error.

Today Billerud has arrived at an innovation model with two different processes and outcomes adapted to the mills on the one hand, and the business areas on the other. While the mills have a process for improvements and incremental development, the business areas have one for renewal and business development. In spite of the different innovation processes, new product concepts have been tested in the mills and successfully launched, in one particular case even without the consent of management. Billerud's learning-by-doing approach allows for new interpretations and action through 'real activities', hence enabling innovation in areas not foreseen. A closer cooperation beyond existing customers to customers' customers, has also included building a network with suppliers, universities and interest organisations to support a more open arena for innovation.

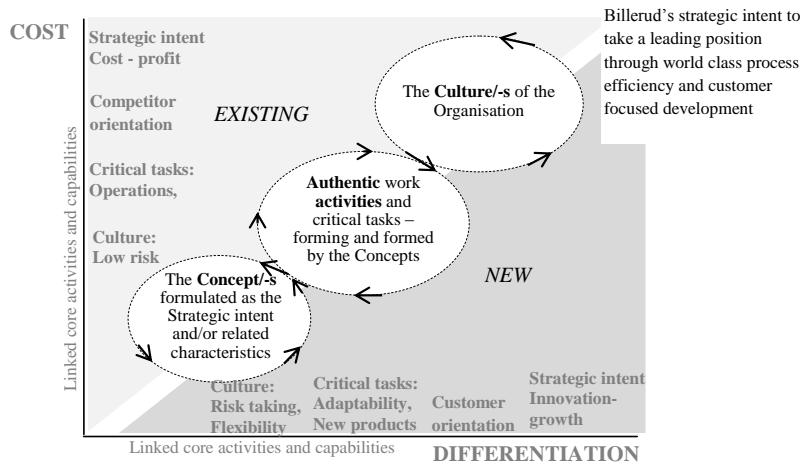
Linking and situating – instead of formulating and implementing

From a theoretical perspective of strategy one could argue that it goes without saying that understanding and making the link between strategy, core activities and capabilities (Porter, 1996; Normann, 2001; O'Reilly & Tushman, 2004; Kim & Mauborgne, 2005) as well as customer orientation and innovation, is a prerequisite for success. However, the limited research between strategy, customer orientation and new product development identified by Frambach et al (2003), together with the empirical findings presented here, suggest that more understanding is needed to facilitate such strategic change. We would argue that there is little consideration for the actual outset of an organisation's strategic endeavour, in relation to the process of linking. For Billerud, the strategy paradigm that had formed the constituent parts of the company for decades, and its' core activities and capabilities, had little room for customer orientation and innovation in the way it was intended, when it was first addressed. The actual progress made towards a new competitive position – aiming to move from a cost-focused strategy to a strategy combining cost and differentiation in Porter's terms, or a Blue Ocean, has been facilitated by a deeper understanding of these links, not only from a behavioural view but also a cultural view (Deshpandé & Webster, 1989; Homburg & Pflesser, 2000; Frambach et al., 2003). In practice, discussions within the management team on the feasibility of the strategy and differences in view on the deadline for performance output have been continuous, while at the same time a contributing factor to the changes. While on the one hand clarifying the new strategic intent, the on-going journey to achieve this objective has required an equal share of clarifying the assumptions behind the strategy to date. *"It's all about simplicity, a simple organisation, creating trust and confidence between people. If you create a complexity in the communication and relations between people you undermine that, from sales to the visionary stuff it's all about the ability to concretize in all simplicity what needs to be done, otherwise this journey will only be a power point-presentation"* in the words of one interviewee. The different actions and decisions taken between 2004 and 2011, has created a deeper understanding of the links between strategies and core activities, capabilities and cultures. This in turn has contributed to finding and developing new ways of working, recruit new competence, guide the allocation of resources and structuring of the organisation as well as adapt the performance measures. *"Today, we [in the management team] talk exclusively about customers...no rather, we talk about business, innovation and development. Volumes and production takes less space, if any."* as expressed by one person in the management team. Based on the empirical findings and theoretical framework presented here we would therefore suggest the following: *(Proposition 1) for an organisation going through strategic change, understanding the assumptions behind different strategic intents and the link between a chosen strategy and critical core activities, capabilities and culture is a prerequisite to enable a transition.* The proposed strategy landscape (see figure 1) may be one starting point.

In order to overcome the formulation and implementation gap however, understanding the links is only the first step. The main contributing factor to Billerud's progress from 2006 and onward, is the way in which management acknowledged and approached the differences in capabilities, tasks and culture needed. And foremost, the iterative and interdependent process between new and existing concepts of the strategic intent, work activities and culture. In the words of Argyris (1977), the new management violated the norms and games respected and played in order to survive through challenging "back-selling" for example. However, this action was coupled with establishing new "ordinary practices" both through approaching customers customer's and through doing test runs in the production facilitates, not common practice in the process and investment heavy forest industry. Progress and projects have been allowed to flourish even if they have not always followed the documented implementation routines or, for example, power point templates connected to new initiatives. The recruitment of new managers have played a central part in setting a different, or rather complementary, innovative culture, recognized by risk-taking, speed and flexibility through a process of joint interaction between the "new" and the "existing". As expressed by one interviewee: *"This learning process we have entered is so multifaceted. It's about everything from our [administrative] systems to how we communicate, how we should be organised, our control system and performance measures, about incentives for sales people; all this is part of the journey that we are on. And what may seem very logic on the surface, and heading the direction we are, is not trivial."* Billerud's iterative implementation and learning approach for enabling strategic change, moving towards differentiation while maintaining focus on cost, is illustrated in figure 2. The figure is

developed based on the suggestions by Brown et al. (1989) seeing learning for strategic change through the lenses of situated cognition and different schools of strategy.

Figure 2: Implementing strategic change through the lenses of situated cognition. Figure developed based on the suggestions by Brown et al. (1989) and authors within strategy (Porter 1985, Porter 1996, Frambach et al. 2003, O'Reilly & Tushman 2004, Kim & Mauborgne 2005).



Hence, strategic change with the aim to create a new paradigm, linking new core activities and capabilities, allowing for simultaneous exploitation and exploration has not only required linking or subsequent structural measures as suggested by O'Reilly & Tushman (2004). To quote one interviewee: *"This is very much about turning people's heads around, to create the right attitudes is extremely important. And that journey, we have certainly not reached the end of. Getting to the depth of the whole organisation, is a job not finished, if it is even feasible..."*. In their own words Billerud's journey is still in an early phase. Issues of culture, organisation structure and business models remain as well as finding new performance measures. Through the lenses of situated cognition (Brown et al., 1989) and different schools of thought within strategy, Billerud's journey from 2004 to 2011 is best described as an on-going movement and a process of knowledge and learning as situated – much dependent on an interaction between the existing and wanted strategic 'concepts', 'activity' and 'culture'. Hence we propose that (*Proposition 2*): *strategic change is enabled through an iterative and probing approach between formulation and implementation which considers knowledge and learning of new concepts, activity and culture as situated.*

5 CONCLUSIONS AND SUGGESTIONS FOR FUTURE RESEARCH

The purpose of this paper is to contribute to the understanding of strategic change, especially for an organisation challenging a reigning strategy paradigm. Through combining empirical research with different schools of thought within strategy and a cognitive approach for learning we suggest two propositions contributing to future research and practical guidance for managers when formulating and implementing strategic change through: linking and situating.

Firstly we suggest that understanding the assumptions between different strategic intents and the link to and between the subsequent core activities, capabilities and culture is a prerequisite for enabling a similar strategic change. For theory we argue the need for further research on the link (or non-link) between assumptions of current and intended strategy and particular activities, capabilities and cultural attributes of relevance for enabling a viable strategic change. Future studies within the forest and paper packaging industry and similar settings could aim to further identify, compare and develop frameworks for, for example, introducing contemporary strategy concepts such as customer orientation and innovation. In the case reported here, the link between strategy and these concepts was expressed to be particularly difficult due to the dynamics between the productivity focus versus the customers-sales focus.

Secondly, and possibly more importantly in a similar situation, we suggest that a transition and implementation is facilitated through an approach which considers knowledge and learning as situated. The case

study indicates that in spite of the outset with a revised strategy and plan, an iterative and probing approach of formulation, interpretation and implementation coupled with purposeful activities acknowledging different cultures, have been integral (but not always foreseen) parts of the journey. For theory we argue the need for further research on the role of situated cognition in strategic change, and particularly the interdependency between cognitive and behavioural aspects in formulating and implementing strategy. A study focusing on identifying the content and relative impact between the interdependent parts of strategic 'concept/-s', 'authentic work activities' and 'culture/-s' (see figure 2) could shed more light on the iterative process of strategy formulation and implementation in strategic change. Furthermore it could be made more explicit what needs to change and how, seeing that change takes time and may require more focus on the how compared to implementing a strategy with no or limited change. Future research in this direction would require more in-depth and longitudinal case studies beyond the management tier of an organisation.

An interesting aspect of the cognitive processes is also the role of language and particularly use of verbal expression and their potential development during a change process when giving new meaning to new concepts, tasks and capabilities. Further research is also suggested in the area of managing a dual focus, in terms of strategy, exploring and exploiting through an ambidextrous approach, based on longitudinal studies.

For practice we argue that these findings are of high relevance for organisations, not least within primary industries, facing the same or going through similar strategic change, questioning or challenging a strategy paradigm. Adhering to calls for increased customer orientation and innovation is easy but making them everyday practice, and strategically viable, may comprise more than adding them to the current strategy. The propositions suggest that managers could benefit from acknowledging the strategic landscape suggested in this paper as a means to prepare for strategic change. The findings also indicate that a strategic change process may be facilitated through consciously applying an iterative process from the outset allowing for an effective adaptation of strategic concepts such as value propositions, and development of capabilities and culture considering 'every day activities'.

On a final note the concluding propositions have limitations in that they have been derived from a single case study and thus has not allowed for a cross-case analysis (Eisenhardt, 1989; Gummesson, 2000). However, despite the empirical description being specific to one company, the resulting findings may be of general relevance as studies of management and organisations benefit from longitudinal and in-depth qualitative research (Gummesson, 2000; Gummesson, 2003). The aim to contribute to the understanding of strategic change may benefit from even more explorative and patient research approaches within companies who are dipping their toes in a new ocean without knowing what awaits below the surface.

REFERENCES

- Alvesson, M. & Sköldbberg, K. (1994). *Tolkning och reflektion - Vetenskapsfilosofi och kvalitativ metod*. First edn. Studentlitteratur, Lund.
- Arbner, I. & Bjerke, B. (1994). *Företagsekonomisk metodlära*. Lund: Studentlitteratur.
- Argyris, C. (1977). Double Loop Learning in Organizations. *Harvard Business Review*, 55(5), 115-125.
- Argyris, C. (1989). Strategy Implementation - An Experience in Learning. *Organizational Dynamics*, 18(2), 5-15.
- Argyris, C. & Schön, D. A. (1995). *Organizational Learning II - Theory, Method and Practice*. Reading, Mass: Addison-Wesley Publishing.
- Beckeman, C.-G. (2008). Innovation Management i ny skepnad ett måste för svensk skogsindustri. *Nordisk Papper & Mässa*, (1/2008), 58.
- Benbasat, I., Goldstein, D. K., & Mead, M. (1987). The Case Research Strategy in Studies of Information-Systems. *Mis Quarterly*, 11(3), 369-386.
- Brown, J. C., Collins, A., & Newman, D. (1989). Situated cognition and the culture of learning. *Educational Researcher*, 18(1), 32-42.
- Collins, J. C. & Porras, J. I. (1996). Building your company's vision. *Harvard Business Review*, 74(5), 65-77.
- Cummings, S. & Daellenbach, U. (2009). A Guide to the Future of Strategy? The History of Long Range Planning. *Long Range Planning*, 42(2), 234-263.
- Deshpandé, R. & Webster, F. E. (1989). Organizational Culture and Marketing: Defining the Research. *Journal of Marketing*, 53(1), 3-16.
- Dobni, C. B. (2010). Achieving synergy between strategy and innovation: The key to value creation. *International Journal of Business Science and Applied Management*, 5(1), 48-58.

- Dubois, A. & Gadde, L. E. (2002). Systematic combining: an abductive approach to case research. *Journal of Business Research*, 55(7), 553-560.
- Eisenhardt, K. M. (1989). Building Theories from Case-Study Research. *Academy of Management Review*, 14(4), 532-550.
- Frambach, R. T., Prabhu, J., & Verhallen, T. M. M. (2003). The influence of business strategy on new product activity: The role of market orientation. *International Journal of Research in Marketing*, 20(4), 377-397.
- Gadiesh, O. & Gilbert, J. L. (2001). Transforming corner-office strategy into frontline action. *Harvard Business Review*, 79(5), 72-79.
- Gummesson, E. (2000). *Qualitative Methods in Management Research*. (Second edn ed.) Thousand Oaks, California: Sage Publications Inc.
- Gummesson, E. (2003). All research is interpretive! *Journal of Business and Industrial Marketing*, 18(6/7), 482-492.
- Hamel, G. (1996). Strategy as revolution. *Harvard Business Review*, 74(4), 69-&.
- Hamel, G. & Prahalad, C. K. (1989). Strategic Intent. *Harvard Business Review*, 67(3), 63-76.
- Hamel, G. & Prahalad, C. K. (1993). Strategy As Stretch and Leverage. *Harvard Business Review*, 71(2), 75-84.
- Harryson, S. J. (2000). *Managing Know-Who Based Companies - A Multinetworked Approach to Knowledge and Innovation Management*. Cheltenham, UK: Edward Elgar Publishing Limited.
- Hayhurst, D. (2002). Valuing the customer's voice. *PPI Pulp and Paper International Magazine*, 44(8), 25-27.
- Herrmann, P. (2005). Evolution of strategic management: The need for new dominant designs. *International Journal of Management Reviews*, 7(2), 111-130.
- Homburg, C. & Pflesser, C. (2000). A multiple-layer model of market-oriented organizational culture: Measurement issues and performance outcomes. *Journal of Marketing*, 3(4), 449-462.
- Jacobs, C. D. & Heracleous, L. (2005). Answers for questions to come: reflective dialogue as an enabler of strategic innovation. *Journal of Organizational Change Management*, 18(4), 338-352.
- Johnson, G. (1992). Managing Strategic Change - Strategy, Culture and Action. *Long Range Planning*, 25(1), 28-36.
- Johnson, M. W., Christensen, C. M., & Kagermann, H. (2008). Reinventing Your Business Model. *Harvard Business Review*, 86(12), 50-59.
- Kaplan, R. S. & Norton, D. P. (2007). Using the balanced scorecard as a strategic management system. *Harvard Business Review*, 85(7-8), 150-161.
- Kim, W. C. & Mauborgne, R. (2004). Blue ocean strategy. *Harvard Business Review*, 82(10), 76-84.
- Kim, W. C. & Mauborgne, R. (2005). *Blue Ocean Strategy - How to Create Uncontested Market Space and Make the Competition Irrelevant*. Boston: Harvard Business Review Press.
- Kotter, J. P. (1995). Leading Change - Why Transformation Efforts Fail. *Harvard Business Review*, 73(2), 59-67.
- Mankins, M. C. & Steele, R. (2005). Turning great strategy into great performance. *Harvard Business Review*, 83(7), 64-72.
- Markides, C. (1997). Strategic innovation. *Sloan Management Review*, 38(3), 9-23.
- Melnyk, S. A., Hanson, J. D., & Calantone, R. J. (2010). Hitting the Target ... but Missing the Point: Resolving the Paradox of Strategic Transition. *Long Range Planning*, 43(4), 555-574.
- Mento, A. J., Jones, R. M., & Dirndorfer, W. (2002). A change management process: Grounded in both theory and practice. *Journal of Change Management*, 3(1), 45-59.
- Mintzberg, H. (1994). *The Rise and Fall of Strategic Planning*. Hertfordshire: Prentice Hall International (UK).
- Mintzberg, H. & Quinn, J. B. (1992). *The Strategy Process - Concepts and Context*. Englewood Cliffs: Prentice Hall International, Inc.
- Neilson, G. L., Martin, K. L., & Powers, E. (2008). The secrets to successful strategy execution. *Harvard Business Review*, 86(6), 60-70.
- Normann, R. (2001). *Reframing business - When the Map Changes the Landscape*. John Wiley & Sons Ltd, Chichester.
- O'Reilly, C. A. & Tushman, M. L. (2004). The ambidextrous organisation. *Harvard Business Review*, 82(4), 74-81.
- Olander-Roese, M. (2008). *Towards a new business paradigm - A study of the paper packaging industry*. Lund: Department of Design Sciences, Division of Packaging Logistics, Lund University, Media-Tryck.

- Olander-Roese, M. & Olsson, A. (2007). Adapting to changes in the supply chain – Challenges to re-defining the supply chain for increased customer orientation and product innovation within the paper packaging industry. In *16th annual IPSERA conference*.
- Olsson, A. & Olander-Roese, M. (2005). Multi-theoretical perspectives in an abductive action research study. In B. Gammelgaard & T. Skjøtt-Larsen (Eds.), *Nofoma 2005 edn* Copenhagen: Nofoma.
- Ottosson, E. (2008). Strategiskt vägskäl för nordisk skogsindustri. *SPCI/Svenska Papperstidning*, (1), 26-27.
- Patel, R. & Tebelius, U. (1987). *Grundbok i forskningsmetodik: kvalitativt och kvantitativt*. Lund: Studentlitteratur.
- Patton, M. Q. (2002). *Qualitative Research & Evaluation Methods*. (3rd ed.) Thousand Oaks: Sage Publications, Inc.
- Pfeffer, J. & Sutton, R. I. (1999). Knowing "what" to do is not enough: Turning knowledge into action (Reprinted from *The knowing-doing gap: How smart companies turn knowledge into action*). *California Management Review*, 42(1), 83-108.
- Porter, M. E. (1985). *Competitive advantage, Creating and Sustaining Superior performance*. New York: The Free Press.
- Porter, M. E. (2008). The five competitive forces that shape strategy. *Harvard Business Review*, 86(1), 78-93.
- Porter, M. E. (1996). What Is Strategy? *Harvard Business Review*, 74(6), 61-78.
- Sarkees, M., Hulland, J., & Prescott, J. (2010). Ambidextrous organizations and firm performance: the role of marketing function implementation. *Journal of Strategic Marketing*, 18(2), 165-184.
- Stuart, I., McCutcheon, D., Handfield, R., McLachlin, R., & Samson, D. (2002). Effective case research in operations management: a process perspective. *Journal of Operations Management*, 20(5), 419-433.
- Sull, D. N. (2007). Closing the gap between strategy and execution. *Mit Sloan Management Review*, 48(4), 30-40.
- The Swedish Forest Industries Federation (2011). Skogsindustrin: En faktsamling 2011 års branschstatistik [On-line]. Available: www.skogsindustrierna.se
- The Swedish Forest Industries Federation (2012a). Strukturutveckling 1969-2011 [On-line]. Available: www.skogsindustrierna.se
- The Swedish Forest Industries Federation (2012b). The Swedish Forest Industries Federations. www.skogsindustrierna.se [On-line]. Available: www.skogsindustrierna.se
- Voss, C., Tsiriktsis, N., & Frohlich, M. (2002). Case research in operations management. *International Journal of Operations & Production Management*, 22(2), 195-219.
- Whittington, R. (1997). *What is strategy and does it matter*. London: International Thomson Business Press.
- Yin, R. K. (2003). *Case study research: design and methods*. (3rd ed.) Thousand Oaks: Sage Publications, Inc.

Paper III

The Road to Paradoxical Strategy: Lessons from Strategic Change in the Paper Packaging Industry

Malin Olander Roese and Mats Magnusson

Abstract

Changing strategy often means dealing with paradox. Contradictions and inconsistencies need to be addressed and managed between what was and what is going to be. This can be a particular challenge if the intended strategy is a paradox in itself due to a combination of seemingly incommensurable answers to fundamental strategic questions such as: Who are our customers? What do we offer and how are we going to realise it?

In the literature, this development of strategic and organisational renewal is often framed as the strategy and management of paradox or ambidexterity. This means a rejection of traditional trade-offs suggested within strategy, and the ability to explore and exploit at the same time. Thus far, ample research has identified the advantages and challenges of dual strategies and ambidextrous organisations. Solutions are predominately geared towards internal processes and organisational structures, hence answering to what can be done. The cases referred to are often found in fast-moving industries and companies targeting consumers. While these studies are indeed important steps and references for solving and finding answers to the inherent tensions and challenges of dealing with paradox in strategy and management, there is nevertheless room for further research.

The outset of this paper is an identified need for empirical and longitudinal studies that address strategic change in an industry not often referred to in the literature. Based on a case study of a manufacturer of paper packaging materials in the Swedish forest industry between 2004 and 2010, the purpose is to describe and analyse issues of paradox in strategic change and explore how these are managed within an organisation upstream in the value chain. As a result, we suggest that these paradoxes can be managed through four distinct dynamic mechanisms that capture paradoxes on a strategic and organisational level which we have labelled: Finding, Forming, Featuring and Faith.

Introduction

There is a growing interest for diversity in the fields of strategy and management and at the same time an increasing emphasis on the fundamental objects of strategy being those of

organisation, process and change. This is mirrored by an increased confidence among practitioners for adapting and combining strategy ideas and frameworks (Cummings & Daellenbach, 2009). One reason for the simultaneous diverging and converging development in research and practice of strategic management may be an increased need to find new ways to compete with seemingly contradictory strategic intents. In the literature this development is often framed as strategy and management of paradox and ambidexterity, meaning a rejection of the need for trade-offs between strategies and the ability to explore and exploit at the same time (See e.g.;Magnusson & Martini, 2008; March, 1991; O'Reilly & Tushman, 2004; Sarkees & Hlland, 2009; Smith, Binns, & Tushman, 2010).

In practice, organisations in many industries are finding the need for strategic and operational renewal, which is echoed in the literature (Baden-Fuller & Volberda, 1997; Volberda, Baden-Fuller, & van den Bosch, 2001; Whipp, Rosenfeld, & Pettigrew, 1989). Increasing pressures from emerging markets, and companies that create innovative products at low cost, are challenging established strategies on the European and American markets (Williamson, 2010). The traditional either/or perspective, often exemplified by Porter's theories, is no longer perceived as a sustainable way forward as neither the *either* nor the *or* appear to render a satisfying solution. In search of new ways to compete, dual strategies and ambidextrous organisations are thus being explored and implemented.

However, an organisation that is developing and managing a strategy to this end may find it a challenging task. A similar journey taps into the paradox of stability and change, old and new, but also choice and duality (Baden-Fuller & Volberda, 1997; Mintzberg & Quinn, 1992; Tushman & O'Reilly, 1996) in addressing fundamental questions such as: *Who* are the targeted customers? *What* products or services should be offered to them? *How* will the organisation go about achieving all this? (Markides, 2004). The solutions predominately proposed are based on organisation and systems theory and are frequently geared towards temporal, spatial and structural solutions as well as internal processes (Baden-Fuller & Volberda, 1997; O'Reilly & Tushman, 2004; Raisch, Birkinshaw, Probst, & Tushman, 2009; Smith et al., 2010). In the strategic management literature on the other hand, paradox is more of an oxymoron avoided through a choice between, for example, a strategy of cost leadership or differentiation, arguably leaving the issues of paradox to the process of implementation. Kim and Mauborgne (2004) suggest, though without explicitly referring to paradox but rather to a dual strategy of sorts, that "...evidence shows that successful companies pursue differentiation and low cost simultaneously" (p. 82). In a more recent article, Smith et al. (2010) suggest that in order to face an increasingly global and more competitive world, organisations develop what they refer to as multiple, paradoxical strategies.

Whereas solutions that enable organisational ambidexterity have typically been viewed in structural terms (Gibson & Birkinshaw, 2004), and then often in terms of differentiating responsibilities (Raisch et al., 2009), strategy is about alignment, doing many things well, not just one, and integrating them (Markides, 2001; Normann, 2001; Porter, 1996). Notions of duality and paradox in strategic management and organisation theory, as well as in management theory in general are not new (Lewis, 2000). But a number of issues remain vague and unexplored calling for more empirical research, particularly of a longitudinal

nature (Lewis, 2000; Raisch et al., 2009). As argued by Magnusson & Martini (2008), the majority of research on ambidexterity and paradox still approaches the topic with a trade-off perspective: “With few exceptions, literature has suggested that these activities (i.e. exploitation and exploration) require different strategies and organising solutions, and that they cannot be successfully combined within a single organisation” (p. 3). Hence, more can be gained from addressing how paradoxical strategies are developed and implemented.

In our effort to investigate what the issues of paradox are and how organisations go about dealing with them, we bring forward perspectives of strategy and organisation theory in line with suggestions by Cowherd and Luchs (1988). Adhering to the calls for longitudinal research, the findings presented here are based on a case study between 2004 and 2010 of a manufacturer of paper packaging material in the Swedish forest industry. The article captures the focal company’s journey of strategic change: from a position upstream in the value chain, formed by a predominant cost leadership strategy, travelling towards a more comprehensive strategy with elements of differentiation, infusing duality and paradox. The purpose is to describe and analyse issues of paradox in strategic change and explore how these are managed within an organisation upstream in the value chain.

Paradoxes, organisations and strategy

A pervading notion in the organisation and management literature on paradox and ambidexterity is the long-standing dichotomy between exploration and exploitation and the aim to capitalise on, or manage this duality for long-term survival and success (Eisenhardt, 2000; Gibson & Birkinshaw, 2004; March, 1991; O’Reilly & Tushman, 2004). ‘Exploration’ in this context concerns variation, growth, adaptability, risk taking, experimentation, flexibility, and innovation whereas ‘exploitation’ is related to operations, efficiency, refinement, quality, low risk, and even implementation and execution (March, 1991; O’Reilly & Tushman, 2004; Sarkees & Hulland, 2009).

The outset for handling this duality is often a rejection of Porter’s theory on competitive advantage and the advocated need for trade-off and choice between strategies of, for example, ‘cost’ or ‘differentiation’ (Magnusson & Martini, 2008; Sarkees & Hulland, 2009). Sarkees and Hulland (2009) provide a definition of an ambidextrous strategy that opposes the need for this trade-off as: “A firm which employs an ambidextrous strategy simultaneously engages in a high degree of both efficiency and innovation, relative to its competitors” (p. 46). However, even though Porter is often referred to when depicting or rejecting the traditional notion of trade-off and either/or in strategy, translating the dichotomy of ‘cost’ and ‘differentiation’ to that of ‘efficiency’ and ‘innovation’ or ‘exploit’ and ‘explore’ leaves room for clarification. An organisation that manages to combine exploration and exploitation does not necessarily have a dual or paradoxical strategy that combines, for example, cost leadership and differentiation.

Organisation: structures, processes and beyond

Managing paradox or enabling ambidexterity, from the perspective of systems and organisation theory is a prerequisite for system survival and prosperity and requires “...an appropriate balance between exploration and exploitation...” (March, 1991; p.71). In order to

manage paradox and enable ambidexterity from this perspective, solutions have typically been viewed in structural terms (Gibson & Birkinshaw, 2004; Raisch et al., 2009). Successful companies have according to O'Reilly and Tushman (2004) created "...organisationally distinct units that are tightly integrated at the senior executive level" (p. 75). Hence, this separates the organisation according to exploratory and exploitative structures, processes and cultures. The distinctly split units that form ambidextrous organisations are found to be more effective than organisations with, for example, functional organisational design, or cross-functional teams (O'Reilly & Tushman, 2004).

The increasing attention in the literature on the concept of organisational ambidexterity and the management of paradox has led to complementary views beyond structural solutions and a broader agenda for research (Luscher & Lewis, 2008; Magnusson & Martini, 2008; Raisch et al., 2009). Thus far, the research on organisational ambidexterity has primarily focused on how exploitation and exploration are handled within organisations. In a recent special issue in *Organisation Science*, Raisch et al. (2009) suggest four areas that remain unexplored, vague or ambiguous in balancing exploitation and exploration for sustained performance. Among them are the structural solutions referred to as differentiation versus integration and an internal versus external perspective. Because an ambidextrous organisation, through its structure, is a means to uphold or increase innovative and exploring capacities, there is a need to broaden the internal perspective to include the external one. What is key for building innovative capabilities and capitalising on innovations based on research in innovation management, is finding and developing different forms of relationships through external partners for know-how accumulation and collaboration (Bessant, Lamming, Noke, & Phillips, 2005; Phillips, Lamming, Bessant, & Noke, 2006; Rothwell, 1994; Tidd, Bessant, & Pavitt, 1997).

To further develop actionable solutions for continuous innovation beyond the trade-off perspective, there is an identified need for solutions that do not limit managers' alternatives to balancing and separating. In line with Eisenhardt (2000), Magnusson and Martini (2008) call for possibilities "...to shift beyond the present constructed paradox" (p. 5). Eisenhardt (2000) argues that managing the duality of paradox "... hinges on exploring the tension in a creative way that captures both extremes, thereby capitalizing on the inherent pluralism within the duality" (p. 703). This highlights other avenues to deal with duality or paradox, beyond a straightforward separation in time and/or space to an integration of the same. One way of accomplishing this is by introducing a third element or a new term to resolve paradox (Janssens & Steyaert, 1999; Poole & Van De Ven, 1989).

Strategy: boundaries, value innovation and the offering

From the perspective of strategy, achieving a particular outcome depends on doing *many* things well – not just a few – and *integrating* among them (Markides, 2004; Mintzberg & Quinn, 1992; Normann, 2001; Porter, 1996; Whittington, 1997). With a similar perspective of 'combining the whole', taking paradox into account, the challenge is to conceptualise the combination of differentiation and integration to achieve synergies, in line with suggestions by Eisenhardt (2000), Gupta, Smith and Shalley (2006) and Lewis (2000).

However, the strategic management literature has thus far not addressed paradox and ambidexterity in the same thorough manner that we find in the literature on organisations and general management. The limited reference to paradox in this field may be a result of the traditional division between strategy formulation and implementation, and strategy as analysis rather than an iterative process (Dobni, 2010; Markides, 2001; Mintzberg, 1994). Another influencing factor may be the long-standing debate on the definition of what strategy really is (Markides, 2004; Porter, 1996; Whittington, 1997). This is not to say that issues of paradox are not addressed in the development and implementation of strategy. Issues of, and levers for, strategic change and implementation (e.g. structure, processes, control systems and culture) frequently encounter and address the paradox of the old and the new, and balancing exploitation and exploration (Baden-Fuller & Volberda, 1997; Normann, 2001; Simons, 1995). It appears nevertheless to be a limited area of research, which is understandable since strategy to a large extent is about limiting or avoiding paradox and ambiguity. Smith et al. (2010) use the term ‘paradoxical’ to refer to multiple strategies which may be contradictory in nature, yet interrelated and necessary for long-term success. They go on to state that: “Paradoxical strategies thrive within business models. By business model, we mean the design by which an organisation converts a given set of strategic choices – about markets, customers, value propositions – into value, and uses a particular organisational architecture – of people, competencies, processes, culture and measurement systems – in order to create and capture this value” (Smith et al., 2010; p.450). Focusing on the leadership of complex business models, encompassing paradoxical strategies, their findings highlight the role of dynamic decision making, active learning, and conflict to move away from an either/or approach to a both/and. The discourse is based on a clear distinction and separation between exploration and exploitation and how this ‘paradoxical strategy’ is bridged by senior managers’ approaches and actions. Smith et al. (2010) do not, however, address possible paradoxes in the actual strategic choices referred to.

Kim and Mauborgne (2004) on the other hand, without explicitly referring to paradox, coined the term ‘blue ocean’ for strategies that combine differentiation and low cost. Defying this well-established trade-off, Kim and Mauborgne (2005) point to the need for reconstructing market boundaries and creating new value propositions. However, the solutions rest foremost with leadership and a fair process of formulation and implementation, and do not address the issues of paradox per se. Normann (2001) and Normann and Ramirez (1998) argued prior to ‘blue oceans’ the need for a new strategic paradigm they called the “reconfiguration of value-creating systems” (Normann, 2001; p. 21). The major conceptual implication of that, according to Normann (2001), “...is to move away from the traditional industrial view of the customer as offering an ‘output’ of one’s production system to a view in which the customer offering is seen as an ‘input’ in the customer’s value creating process” (p. 71). Such a strategy builds on changing the view of business from a traditional value chain logic, where value creation is sequential and linear, to a co-productive one where firms both compete and collaborate to achieve value-creating offerings (Normann, 2001; Normann & Ramirez, 1998). This new logic implies that “...it is offerings, and not firms, that compete in the marketplace for customers” (Normann & Ramirez, 1998; p.74) and hence should be the key unit of analysis. However, the sustainable and long-term possibilities with a similar strategy hinges

on the assumptions underlying the strategic paradigm of the firm. Where the classical school of strategy – the structuralists or environmental determinists – takes its outset in the particular conditions and boundaries of an industry or market within which a firm must compete, the outset of the reconstructionists is in how the actions and beliefs of a firm can reconstruct these boundaries (Kim & Mauborgne, 2005).

Returning to the notions advanced by Smith et al. (2010) in relation to paradoxical strategies and how strategic choices are converted into value, structures and systems, we summarise our theoretical discussion with two research questions. Firstly, taking the three strategic question posed by Markides (Markides, 1997; Markides, 2001; Markides, 2004) as our point of departure, we ask: How does an organisation upstream in the value chain go about renewing and implementing the answers to the strategic questions of Who, What and How? Secondly: What paradoxes arise in this renewal and how are they managed?

Research approach

The research presented here is from a longitudinal case study of Billerud, a leading manufacturer of paper packaging material in the Swedish forest industry. The case selection was based on our aim to investigate challenges and solutions of strategic change, facing the inherent issues of paradox. The case of Billerud is of particular interest, being a company in a traditional primary industry with a long history of high-tech, and capital intensive processes upstream in the value chain, aiming to break-away from a dominant industry paradigm of cost leadership towards another where market-, customer orientation, new product development and later; innovation, were important ingredients. Furthermore, Billerud represents a case from an industry not often referred to in research on this topic. Longitudinal access to the company was an additional prerequisite (Gummesson, 2003; Stuart, McCutcheon, Handfield, McLachlin, & Samson, 2002).

The study covered the period from 2004 to 2010 and is based on a qualitative approach (Alvesson & Sköldberg, 1994; Gummesson, 2000). Collecting qualitative data has allowed us to capture the individual perceptions of the change that was being examined (Voss, Tsikriktsis, & Frohlich, 2002; Yin, 2003). The unit of analysis was the strategic change under way and the managerial actions, decisions and organisational reactions involved in this particular case. The data collection between 2004 and 2010 encompassed 23 in-depth interviews, observations and participation in nine meetings and workshops at the headquarters, two paper mills and one European sales office. To complement the first-hand data, extensive studies of the company's written material were carried out. The material included internal and external presentations, employee magazines, annual reports, press releases and media articles covering the years of the study.

The interviews were primarily performed between 2004 and 2005 and in 2010, with several meetings in between. In the first phase, 14 in-depth interviews were conducted based on open-ended questions covering the reasons for the on-going change initiative, the actual strategy and implementation efforts, and the possibilities and challenges concerning customer orientation and new product development. One board member, the CEO and managers for packaging related product areas, marketing, sales, production, HR and R&D were

interviewed, as well as product developers and technical support personnel within a selected segment team of particular relevance for the study. In 2010, nine interviews were conducted with six out of the eight individuals in the group management team and three individuals closely linked to prioritised strategic projects. Compared to the first phase, seven of these people joined the company in 2005 or after. The interviewees included the CEO and senior managers for packaging related business areas, production, HR and R&D. Three individuals outside the management group were selected and interviewed based on their responsibilities for technical development, business analysis and development, and service development, respectively. The interview guide, again with open-ended questions, covered issues concerning objectives and financial targets, strategy, customers/markets, products/services, innovation and development, implementation and control systems. The interviews in 2010 were further aided by images of copied illustrations of the company's business idea, strategy, organisational structure, and value chain from 2004/2005 and 2009/2010. These were used to contrast the differences and similarities between the years and capture the interviewees' experiences and reflections on the changes. Four meetings were held with the management team in 2004 and 2005 to prepare and reflect on the findings. Two meetings were held for similar reasons with the selected segment team. Moreover, three meetings and workshops were held with members of the management team between 2008 and the beginning of 2011 to prepare and reflect on previous research and new findings and propositions. All interviews were electronically recorded and transcribed. Meetings only allowed for written notes to be taken.

In analysing the findings from interviews, meetings and written material in relation to relevant theories, an abductive, iterative approach allowed us to structure the data and draw conclusions by further applying qualitative content analysis (Alvesson & Sköldbberg, 1994; Patton, 2002). The collection and analysis of data has been continuous while main conclusions drawn from the study have been concentrated to the time periods following the interviews. The first phase (2004/2005), resulted in identifying challenges in moving from a traditional cost paradigm to a new strategic perspective; combining different strategic intents with an increased focus on market orientation and new product development. The identified challenges included a strongly rooted inside-out perspective (production rather than customers being in focus), difficulties in implementing tools and processes for market learning and new product development, and a process for developing and implementing strategy which did not support the desired changes (Olander-Roese, 2008; Olander-Roese & Olsson, 2007). The time period up until the second phase of interviews in 2010/2011 allowed for studying and analysing second-hand data (i.e. the written material) and structuring the findings in accordance with challenges and issues previously identified. This resulted in an emerging notion on how these were addressed by the case company and gave input to an extended literature review, beyond strategic management to the area of organisation theory and issues of paradox and ambidexterity. The second phase of interviews resulted in additional data and understanding of how the previously identified challenges were managed, possible solutions and enablers, and emerging new challenges in relation to the intended strategic change (Olander Roese & Olsson, 2012). Concluding the second phase, new and earlier findings have been analysed, structured and categorised in two steps. Firstly in relation to the previously

identified challenges and secondly, using the three questions suggested by Markides (2004) categorising the findings according to 'who', 'what' and 'how', to which we added a fourth question of 'why'. In this article, the conclusions of the latter are presented, resulting in the suggestion of four dynamic mechanisms for dealing with paradox in strategy and change.

In order to validate the research, in particular with regard to issues of reasonableness, credibility and truthfulness of the qualitative study at hand (Arbnor & Bjerke, 1994), meetings with interviewees were of particular importance for reflecting on the findings. To ensure theoretical relevance, the results were communicated by publishing papers along the way as suggested in the methodology literature (Arbnor & Bjerke, 1994; Gummesson, 2000). We now turn to the empirical observations of strategic change at Billerud. In order to respect the integrity of the interviewees, all citations included are referred to anonymously, unless they are already published in public material.

Lessons from the paper packaging industry: A journey of strategic change towards paradoxical strategy

Billerud was formed in 2001 through a merger of three existing Swedish paper mills and introduced on the Stockholm Stock exchange the same year. Following the formation in 2001, the company focused on developing a strategy, creating synergies and coordinating activities of the founding mills. The efforts led to an emerging niche position for fibre-based packaging material, increased production capacity and a significant rise in deliveries. In 2004, changing market demands and continually rising costs of energy, wood and other raw materials, initiated a search for new ways to compete. With the outset in the company's financial objectives, the strategy was revised based on two cornerstones: *Focusing on attractive niche segments* and *earnings growth* through increased margins and reduction of costs. Increased market orientation and new product development became central themes of the new strategy. *"Following the successful start it is now time to move to the second phase, in which the focus will be on increased market orientation. This will enable Billerud to meet new demands from customers and end-users. Increasing efficiency within the business will be equally important, and this will be done by cutting costs"*, as stated by the acting president and CEO in 2004/2005 (Billerud, 2005).

In line with the novel focus, the founding CEO left the company and a new CEO was appointed in 2005. People with additional new competencies were brought into the management team. Billerud's strategy was thoroughly analysed anew along with a review and changes in the company's objectives and financial targets. One year later a new strategy was introduced aimed at, in parallel; establishing two cornerstones of the strategy: *world class process efficiency* and *customer focused development*. Increased market orientation remained to be important and the previous focus on new product development turned into a broader view on innovation. The initial roll-out plan for the strategy launched in 2006 was 18 months.

The time plan turned out to be overly optimistic. The re-positioning, developed together with external consultants, required more time than perceived: *"...in the beginning we thought we had a plan, an action plan. But it was not like that. You need to develop that by yourself. You need to have the competence"* (Interviewee C, 2010). Summarising 2010, the targets were

reached, as stated by the CEO (Billerud, 2011b): “For the full year 2010 the Group achieved, for the first time since our financial targets were set in 2006, an operating margin of 12%, well above our 10% target over a business cycle. Demand for our products showed a very strong increase during the year, and we can see that our focused approach has achieved results”. The targeted operating margin was equally reached in 2011.

The empirical findings and analysis presented here are based on Billerud’s journey from 2004 to 2010, in which it was breaking away from what can be described as a traditional cost paradigm to a more comprehensive strategy including an increased focus on market orientation, new product development and flexible, customer focused offerings. Summarised in Table 1 are some of main events and figures for the years of the study.

Table 1. A summary of Billerud’s journey – quotes, figures and summaries from annual reports 2004 to 2010 (Billerud, 2011a).

	2004	2005	2006	2007	2008	2009	2010
Quotes and summaries of the years.	<p>“The next stage”</p> <p>From streamlining the operations towards market orientation. A new organisation with segment teams.</p>	<p>“Renewal”</p> <p>New CEO and ownership changes. An intensive programme of change implemented to create a customer and market oriented company of the future.</p>	<p>“Undergoing change”</p> <p>New financial targets set; strategy revised and a new organisation introduced with three business areas.</p>	<p>“Hard work continues”</p> <p>Initiatives for development of value-creating products and solutions in collaboration with end-customers.</p>	<p>“A changed reality”</p> <p>Continued focus on strategy in spite of changed reality (financial crisis). Three primary customer segments prioritised for business development.</p>	<p>“Not a day without progress”</p> <p>Continued cost savings and launch of packaging material Fibre form®. A new Code of Conduct, sustainability targets and sustainability reporting introduced.</p>	<p>“Developing for the future”</p> <p>Financial targets met for the first time since 2006. Innovation, business development increasingly focused on sustainability.</p>
Turnover, net sales (MSEK)	7159	6823	7369	7758	7792	7760	8828
Operating margin	11%	-3%	7%	8%	4%	4%	12%
Employees	2623	2600	2476	2364	2322	2232	2240

Opening up for a strategy of paradox

Billerud, like other companies in the forest industry, has primarily been shaped by a competitive positioning based on the premises of production capacity (volume), cost efficiency and market regulated prices. Moving from the first phase of integrating the founding mills to the next with “...increased market orientation” thus implied the start of a journey that challenged the reigning strategy paradigm. Looking back at this in 2010, interviewee A repeated the driving notion: “I mean the whole theory, the economic, financial base in this industry motivates a development towards large-scale operations, volumes and market dominance and all that. And that is hard to argue with. Theoretically. But in practice

it is becoming a disaster. It does not work anymore". Even though Billerud had established a niche position, through the size and processes of the founding mills, the mills' background in larger corporations (Assi Domän and Stora Enso) had been formed by this dominant view of strategy. Aiming for increased market orientation in 2004 opened up for more than one answer to *who* to target, *what* to offer and *how* to go about it, which were not evident at first.

What followed with the new focus initiated in 2004 was a strategic decision to extend the company's market perspective beyond the current customers (converters of packaging material) to the customers' customers (brand owners). The aim was to learn more about market needs from the end customer perspective and find new ideas for product applications and development. The idea was not, however, to integrate forward in the value chain (i.e. to acquire or develop converting capacity). Hence, remaining in their position as a supplier upstream in the value chain, Billerud set out to explore the market in a way which had not been done before. A number of questions with no clear answers were then posed by the management team: How do we learn more about the market needs and what potential areas for development can we find? What can we do to create more pull instead of push? How do we organise ourselves? What makes an organisation more creative and innovative?

Dealing with paradoxes

The decisions in 2004 clearly opened up for paradox in the fundamental choices of strategy with regard to what game to play, whom to target and what to offer (Markides, 2001). Subsequently, paradoxes appeared in managing the intended strategic change. In analysing the findings in relation to the different streams in the literature, we identified four dynamic mechanisms for managing paradox in strategic change: *Finding* new incentives and answers to customer needs through extending the perceived market boundaries. *Forming* the organisation through diverging structural solutions. *Featuring* integration through finding ways for combining cost efficiency and innovation in the offering. Developing *faith* in a dual direction and diversity in organisational cultures.

These four mechanisms capture critical aspects of the on-going motion within and between different and seemingly polarising ends, in the process of dealing with paradoxical issues on a strategic as well as an organisational level. In labelling these as dynamic mechanisms our intention is not only to pinpoint areas for solutions but also to capture an on-going journey, the process by which change takes place (Gould, 1996).

Finding new answers to customer needs through extending market boundaries

One of the first explicit steps taken in 2004 to increase market orientation was to find incentives and answers to different needs beyond the company's primary customers, the converters. For Billerud this meant moving the perceived boundaries beyond the first customer to the second customer, in line with Normann's suggestions (2001). However sound this may appear in order to achieve increased market orientation, the decision led to strong internal reactions: "*Focusing on our customers' customers rather than our existing customers – are we really going to invest energy in this?*" as stated by interviewee N in 2004. The decision to go beyond existing boundaries to find new ways to compete challenged strongly held assumptions as to who was the company's target customer. Approaching the brand

owners was regarded as 'back-selling' and not perceived as acceptable industry practice. Furthermore, it exposed a lack of experience, tools and processes for identifying customer needs beyond Billerud's current competence. Market learning had thus far involved talking to the converters, and product development had entailed making packaging material that was cost-effective and rational in filling machines. Hence, the first attempts to approach brand owners to find out more about their needs focused entirely on their supply and purchasing processes rather than their needs and views on current and future packaging solutions.

With the new CEO and revised strategy in 2006, the decision was kept to explore, and continue extending the boundaries for market learning. With clear support from the management team and new competence from working with different actors in the value chain, Billerud's explorative approach paved the way for combining the needs and requests not only from the company's direct customers but also second and third customers. The search did not stop with brand owners but went on to retailers who were approached, initially with varying results. Recalling one of the first attempts, interviewee D in 2010 shared: "...we met with X, the heads and all...well prepared, presented our paper and our environmental approach and their response was: 'Guys, we don't buy rolls of paper, we buy packaging. So please come back when you have thought this over and have something to offer.' So we did that and realised it is the packaging solution that is the key issue". In spite of strong internal reactions starting in 2004, the approach gained acceptance on the market, not least thanks to the converters welcoming the value that Billerud would be able to add to their offerings. This was, needless to say, important for Billerud having decided not to integrate forward but to balance the needs of their first customer whilst finding out more about the market needs further down the value chain, a task which remained crucial.

What in the beginning was a means for Billerud to set the frame for market learning and open-ended meetings with brand owners, developed into collaborative projects with new customers and end-customers. In 2007, Billerud had established a number of contacts with end-users to discuss the potential of paper packaging solution based on issues such as function, design and economy. Seminars were arranged with, for example, European sack makers to discuss materials and future partnership projects. Still the idea was not to offer converting capacity: "...the idea is that the dialogue with this group (i.e. brand owners and retailers) becomes a lead generator for new product development and innovation for Billerud" (Interviewee D 2010).

From the perspective of strategy and innovation management scholars, extending the boundaries is in line with suggestions in the literature (Kim & Mauborgne, 2005; Normann, 2001) and supports the initial findings of the case study (Olander-Roese, 2007). The ambidexterity literature emphasises the necessity of exploration and how ambidextrous firms work efficiently to serve current customers while also innovating to serve the needs of existing and potential customers (Sarkees & Hulland, 2009; Tushman & O'Reilly, 1996); however, it does not necessarily address the nature of how this can be done (Raisch et al., 2009). In the case of Billerud, with a position upstream in the value chain, the endeavour to find ways to become more market or customer oriented required different and continuously conflicting answers to the question of 'whom to target'.

Forming the organisation

In order to enable increased market orientation, having decided not to integrate forward in the value chain and without compromising the continued focus on process efficiency, an important step was taken in 2004 to set up cross-mill segment teams through which roles and responsibilities were clarified. These teams, with a mixture of technical and market competencies, were responsible for two new products or product improvements (cost saving ideas) per year, and road shows among the customers' customers. A joint development council had already been set up and each mill had its own commercial responsibility. However, balancing the focus on production efficiency with the perspective of the customers' customers and new product development remained a challenge. *"There is a lot of brainstorming in the product development council, especially with regard to the production process and less regarding products"* (Interviewee P 2005). During this time a decision was made to implement a five-year organisation-wide project with the aim to reduce overall costs and create more standardised ways of working, something which created confusion within the organisation as to whether the company was to be a commodity or niche player.

With the new management team in 2005 and a revised strategy in 2006, the strategic intent was clarified with a dual focus on process efficiency and customer focused development. The organisation was also restructured. The segment teams and product area focus were abandoned and three business areas were formed: Packaging & Specialty Paper, Packaging Board and Market Pulp. The commercial responsibility was removed from the mills to the business areas, along with the responsibility for product and service development, technical services, sales planning and price setting. *"They (referring in particular to the first two business areas and designated projects) are to focus on new customers, new sales models. The traditional sales model, the old model was when we went to the customer, the converter, and asked about their needs and whether they wanted 100 gram or 120 gram paper and then agree, and reach an agreement on volume, establish a price and meet again two months later and then it continues. We already know that, and it's not so complicated...This is about developing...it is not a commercial agreement. It is about projects"* (Interviewee A 2010). In order to induce the desired "commercial drive" as expressed by the same interviewee, creating the business areas was an important step.

The structural measures taken by Billerud fit well with the findings of successful ambidextrous organisations, who set up project teams, or business areas, that are structurally independent and develop their own processes and cultures, but are supported and integrated into the existing management hierarchy. The initial solution, with cross-functional segment teams integrated in the existing organisational structure, was not sufficient in accordance with suggestions of O'Reilly & Tushman (2004). Hence, differentiating by forming the organisation and thereby trying to achieve structural ambidexterity, has been integral in delivering effective outcomes and implementing the strategy where the first and second customer are included in the scope. Moreover, in line with O'Reilly & Tushman (2004) Billerud's management team has played an integral part in balancing the different needs of the organisation. New competence and focus for dialogue have been key: *"We talk only about customers today, no customer is wrong. We talk about business, innovation, and development. We talk about volume and production to a much lesser extent, almost not at all"* (Interviewee

A 2010). Before 2010, three mill managers were part of the management team when they were replaced by one director for production.

However, enabling the exploration of new opportunities within the “organic, decentralised” business areas, closely tied to the headquarters, and the continued exploitation of existing products in the more “hierarchically structured, mechanistic” paper mills in line with Smith et al.’s (2010) argument, created a gap between the different parts of the organisation. Billerud had to find a way to manage what was referred to as the “*the ring fight between the productivity focus versus the customer-sales focus*” based on a new customer perspective aimed at finding new offerings. “*We created two different worlds and to make them want to marry again so that all feel: ‘Yes, we have different assignments, but this is our joint goal and my little part fits in here’ ...That is a real challenge*” (Interviewee B, 2010).

From a strategy perspective the actual efficiency of the structural approach suggested in the literature on ambidexterity (O’Reilly & Tushman, 2004) can be debated in terms of creating alignment (Kim & Mauborgne, 2005; Normann, 2001; Porter, 1996). Referring to the suggestions by Raisch et al. (2009), there was a need for Billerud to diverge and converge, which constituted a paradox in itself. After diverging through structure, Billerud had to find a way to integrate anew. The parallel development of the company’s offerings indicates solutions that go beyond structural ambidexterity.

Featuring integration - combining cost efficiency and innovation in the offering

The question of how to create more pull than push, as expressed by the management team in 2004, or *what* to offer, has been a central issue throughout Billerud’s journey. As a manufacturer of pulp and paper products, Billerud is characterised by high-tech, capital intensive processes and products with high knowledge content. Research and development in production and process efficiency have always been, and still are, key areas for competitive advantage and long-term survival. Hence, in 2004 the product development projects in the form of pilot projects with customers (converters) focused on making the packaging cost-effective during production and rational in filling machines. These processes were familiar to the whole organisation. In 2004 Billerud’s business concept clearly stated that “*Billerud will provide its customers with efficient packaging paper*” (Billerud, 2005).

However, in search for new ways to meet changes in technology, competition from emerging markets and changing consumer demands, the development of new products and solutions with another value added were becoming increasingly important. While the original parameters for development were still of utmost importance, other parameters such as function, design and logistics know-how emerged as an effect of establishing contacts with the end-users: brand-owners and retailers. The aspiration grew to not only be a good supplier but take a more proactive lead in the future development of paper packaging materials and solutions. In 2006 the business concept was revised with regard to the offering, focusing on customer focused development in line with the strategy, stating that Billerud “*...offers demanding customers packaging material and solutions that promote and protect their products – packaging that is attractive, strong and made of renewable material*” (Billerud, 2007a). A similar business concept may be easy to state but in practice it meant opening up

for, for example, test drives of new materials in the paper mills, challenging the fundamentals of production efficiency and exploitation, which became the case in the year to follow.

In 2006 Billerud came across a patent-protected method which would enable new ways of shaping paper without adding extra chemicals, challenging existing plastic packaging for different consumer products. Two years later Billerud signed an agreement to market and produce what became Billerud FibreForm®. Starting up the production of the fibre form material proved a challenge and required numerous test drives. There were many discussions along the way on the potential production consequences, and on the possible need for extra investments in new machinery. As stated by interviewee D in 2010: *“It took a year...we started a project and said if they (i.e. the patent owner) can make it, so can we, and that’s where we started to unravel...some of the guys at our mill in Gruvön liked it...they worked day and night. It was a bit like Santa’s workshop but they did it”*. FibreForm® was launched at the end of 2009 in connection with Scanpack, Scandinavia’s largest packaging exhibition where it received recognition and diplomas followed by several international innovation awards.

Supporting the development of FibreForm® was not least the increased environmental awareness and debate in Europe, and elsewhere, on banning plastic packaging which took off in 2007 with the French decision to ban plastic bags. The same year Billerud and the design company No Picnic formed the consulting company Nine TPP, Total Packaging Partner, which offered new services and packaging concepts (Billerud, 2007b). Between 2007 and 2009, Billerud launched a number of new offerings – products and services, business concepts and collaboration projects aimed at first and second customers – moving beyond new product development towards a search for new product, service and/or business innovations. In 2009 Billerud signed the UN’s global compact, introduced GRI reporting, drew up a new code of conduct and established a new concept named Sustainable Packaging Solution *“...which also become a slogan for all of Billerud”* (Interviewees C and D 2010). As Billerud added a more consultative approach to developing its offering, more and more companies downstream the value chain with established consumer brand names got in touch, not least as a result of the environmental issues finding their way back on the corporate agenda: *“We have never been in this position before...It’s crazy”* (Interviewee D 2010).

Moving the perspective of market boundaries and forming the organisation enabled Billerud to explore in new ways, whilst continuing to exploit the on-going business, in line with the findings on paradoxical strategies and ambidextrous organisations (O’Reilly & Tushman, 2004; Smith et al., 2010). In channelling existing and new competence in new offerings while simultaneously working to increase efficiency, Billerud’s journey is, however, not only understood through the lenses of ambidexterity (i.e. balancing exploration and exploitation) but also through the lenses of value configuration or value innovation to paraphrase Normann (2001) and Kim and Mauborgne (2005). The latter requires an integrated leap in value for Billerud’s customers (the converters) and themselves to become strategically viable. As put by interviewee E in 2010: *“We would not have been able to start this journey if we did not have the competence we have had in-house since the 60s. We have to be experts on our*

products, the processes and the application of our products. And now, perhaps we are first to cash in”.

Using the words of Normann and Ramirez (1998) the linking of “strategic decision” with “offering design” through “organisational structure and processes” enabled Billerud to move towards a new position – making use of existing and new competences and insights. Furthermore, the development of featuring sustainability may in itself be seen as a way of solving the paradoxes created by the strategic choices. Capitalising on ‘sustainability’ creates, implicitly, a synergy between cost leadership and Billerud’s focus on ‘world class process efficiency’ on the one hand, and differentiation and ‘customer focused development’ on the other, thereby embracing a strategic paradox through the offering. Or, lending the notions from Sarkees and Hulland (2009) a way of combining efficiency and innovation. Borrowing from the concepts of paradox in organisation theory and practice, Billerud’s sustainable offering could be regarded as “a third way out” (Janssens & Steyaert, 1999). However, whereas strategies for managing paradoxical duality through a ‘third element’ such as the ‘interpretation concept’, ‘reframing’ or ‘involving of third party’ (Janssens & Steyaert, 1999) remains at the mental level, the ‘offering’ in the case studied here becomes the concrete materialisation of that process. As a result of a continuous process of exploring, rather than suppressing or splitting of tensions as put by Lewis (2000), paradoxes may have merged on a strategic and organisational level. In 2010, customer based solutions amounted to a mere 5% of the turnover, but with the intention to increase it to at least a quarter of the total sales.

Developing faith in a dual direction and diversity in cultures

Setting out in 2004, the management team wanted to instil a climate of creativity and innovativeness, which was regarded as lacking in the mill-centred organisation. In the initial phases of the case study, one of the challenges identified in the development and implementation of the strategy at the time was a dominant inside-out perspective overall (Olander-Roese & Olsson, 2007). Hence, the increased market orientation was met with a set of cultural ingredients shaped by, and shaping, another strategic direction, in turn formed not least by the everyday job in the mills far away from ‘the market’. In line with strategy and organisation researchers (Kim & Mauborgne, 2005; O’Reilly & Tushman, 2004), the mental balancing act needed when managing or aiming to implement a paradoxical strategy proved to be one of the toughest of all managerial challenges. As expressed by the interviewee A in 2010: *“This is all in all a mental journey”.*

Aspiring to take a more proactive lead in the future development of paper packaging materials and solutions, Billerud challenged not only the perceived industry practices such as ‘back-selling’ but also the inherent strategy paradigm – moving from a structuralist view to one of reconstructionalism (Kim & Mauborgne, 2005). For an actor upstream in the forest industry this was not commonplace as phrased by interviewee G in 2010: *“What company in the forest industry would dare to use its second largest machine to do a test run of a completely new product?”* The general development of increasing costs for energy and supplies has had a major impact on Billerud’s profitability. This was not easily manoeuvred through an increase in customer focused development. Furthermore, the share of customer focused solutions was still limited, raising questions internally as to how long the company should persist. While the

operating margin had improved, the growth target had not been reached by 2010. For Billerud, questioning the direction in which the company was going has been present over the years: *“To look forward in the value chain, that was the thing. And that is something that I have truly questioned many times, wondering if it was the right thing to do”* (Interviewee A, 2010). Even though the management team has expressed their belief through words and action in the direction aimed for, there have been many internal discussions. The gap between the headquarters’ new attention-drawing projects in particular, and the mills’ work with cost saving and investments in energy efficiency and more have created substantial tensions.

However, there were cultural elements instilled by the ‘old’ business paradigm which were not all counterproductive in terms of quality, loyalty and the drive to continuously improve the processes that has contributed in meeting the ‘new’. Where the management team would speak of a “mill mentality” as a challenge, the mills would refer to a positively connoted “mill spirit”. As described by interviewee B in 2010: *“Other organisations struggle to build a culture. We have a very strong culture in the local mills. The challenge has been aim it in the same direction”*. One example of when preconceived views of the existing culture took an interesting turn was when one mill responded to a request for a type of consumer packaging board, not previously produced by Billerud. The management discarded the request based on the conclusion that a large initial investment would be necessary but the investment proved not to be needed. The packaging board was instead developed in one of the mills using existing machinery, reaching sales volumes exceeding the initial estimate by a factor of 15. Hence, ‘faith’ in this context can be regarded through the lenses put forward by Whipp et al. (1989) as a collection of concepts embracing a diversity of expressions, incorporating more than one set of culture beliefs impacted by, and impacting the intended strategy.

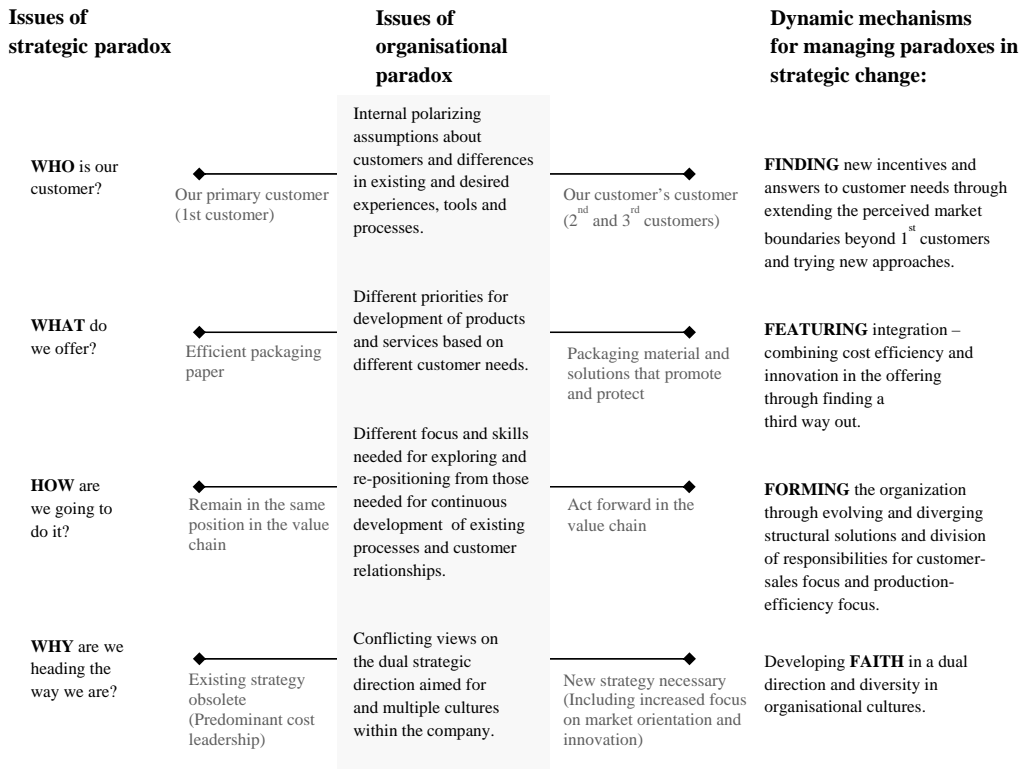
With the new HR manager in 2006 a major investment in internal processes, leadership and communication took off. However, where the initial aim of the new strategy was to make *“all mills look the same”* as expressed by interviewee B, it became more important to allow for cultural differentiation whilst achieving a common view of *“why we are heading the way we are”*. A development much in line with the suggestions of Tushman and O’Reilly (1996) to strive for the tight-loose aspects of culture with broadly shared values and norms, allowing for variations in expression and local interpretation.

Discussion

In summarising the empirical findings in relation to notions put forward in the strategy, organisation and management literature, a multifaceted picture of dealing with paradoxes emerges. In the case presented here we found two levels: one in relation to strategy and strategic choices, and the second in relation to the organisational issues identified. In seeing how the different levels of paradox have interacted, and continued to do so, we argue that the term ‘paradoxical’ relates to *different levels* of strategy development, implementation and management rather than being about *“...multiple strategies that are contradictory yet interrelated”* as suggested by Smith et al. (2010; p.450).

Furthermore, in dealing with these paradoxes a number of forces and enablers come into play which go beyond the previously stressed structural ambidexterity, which we have identified as one of four suggested dynamic mechanisms (see figure 1).

Figure 1. Dynamic mechanisms for managing issues of strategic and organisational paradox in strategic change



Beyond the structural solution (*Forming*), we have found three others of equal importance. Firstly, *Finding* new incentives and answers to customer needs through *extending the perceived market boundaries*. Secondly, *Featuring* integration through *combining cost efficiency and innovation in the offering*, and thirdly having and developing *Faith* in a *dual direction and diversity in organisational cultures*. *Finding* and *Featuring* can be referred to the strategic questions of *who* is our customer and *what* are we going to offer, as suggested by Markides (2004). Along the same lines, *Forming*, can be referred to the question of *how* are we going to do it. However, in a strict sense one could argue that Billerud's answer to the *how* question was to remain in the same position in the value chain, not opening up for more than one answer (as is the case for the *who* and the *what* questions) whilst at the same time possibly being the ultimate source of the strategic paradox in itself, reflected in the evolving structural solutions. *Faith*, however, refers to a fourth question of *why* which we added to the framework of questions. Whilst not foreign to strategic change, particularly with regard to

innovation (See e.g. Dougherty, 1992; Johnson, 1992; Mintzberg & Quinn, 1992), we found this mechanism to play an integral part in the journey of the case company. It did so both in relation to the strategic choice of challenging the reigning strategy paradigm in the industry, and in relation to the internal diversity of beliefs and culture. Furthermore, the cultural aspects found here provide food for thought as to the role of “old beliefs” in strategic change heading towards a dual or paradoxical strategy.

Hence, while structurally ambidextrous organisations and effective internal processes appear important to enable combined exploitation and exploration, we argue in line with suggestions found in strategic and innovation management literature (Kim & Mauborgne, 2005; Normann, 2001; Tidd et al., 1997) that integration through value innovation and an extension of the company boundaries stand out as prerequisites for *paradoxical strategies* to thrive. What we find particularly interesting is the way the offering may provide an avenue for combining seemingly opposing strategic intents, perspectives, organisational responsibilities, competencies and cultures by “...capturing its enlightening potential” to quote Lewis (2000; p. 763). By merging notions on how to resolve paradox through a third element (Janssens & Steyaert, 1999) with those of value innovation and configuration, as suggested by authors in the field of strategy (Kim & Mauborgne, 2005; Normann, 2001), the emerging “sustainability offering” in the case studied here can be seen as a way of combining strategies that would traditionally result in opposing offerings (Porter, 1996). With support from Lewis’s (2000) arguments (however not referring to the offering per se) Billerud’s focus on sustainable solutions can be seen as a means to move beyond immediate rational solutions and to cope with paradox where two ends of a continuum generate a greater, joint value capturing the paradox on strategic and organisational levels. ‘Sustainability’ for a company within the forest industry allows for combining both efficiency and innovation.

However, it should be noted that for Billerud, the journey continues in which many of the challenges remain, the growth target being one of fundamental importance. Clearly, in a world where previous models no longer work, there is a growing interest and need for diversity in the fields of strategy and management, and this underlines the importance of finding fruitful means to drive changes towards paradoxical strategies.

Conclusions

The purpose of this paper was to describe and analyse issues of paradox in strategic change and explore how these are managed in an organisation upstream in the value chain. Based on a longitudinal case study of a company in the Swedish forest industry, we found two different levels of paradox: one in relation to strategy and strategic choices, and the second in relation to the organisational issues identified. In dealing with these different levels, integrating traditional elements of strategy development and implementation with research on paradox in the field of organisation theory, we suggest that these paradoxes can be managed through four distinct dynamic mechanisms that capture paradoxes on a strategic and organisational level which we have labelled: Finding, Forming, Featuring and Faith.

In so doing we have illustrated differences in dealing with strategic renewal and paradox of strategy *in relation to* handling the managerial act of combining exploitation and exploration.

We have described how a company can go about renewing the answers to strategic issues and the tensions that derive from the different levels of paradox. Even though organisational ambidexterity and strategic paradox may be inherently intertwined – not least with regard to the internal, iterative processes for implementation and execution – the interrelated tensions and solutions have thus far not been addressed coherently through empirical studies.

Responding to the suggested avenues for strategic management research proposed by Cummings and Daellenbach (2009), our findings, even if limited to a single case study, contribute to an improved understanding of new ways of combining strategy and management ideas and frameworks to find new solutions. Further research on the distinction and interrelationships between ambidextrous organisations and ambidextrous or paradoxical strategies would be beneficial in developing more actionable strategic management knowledge in today's business landscape.

For practice, our findings point at solutions beyond structural ambidexterity and a process of multiple mechanisms inherent in living with and managing duality. Any organisation can benefit from the joint enabling of exploiting and exploring, irrespective of strategy. In dealing with a strategy of paradox however, the previously suggested structural solution may not be enough. Finding and Featuring; extending market boundaries and striving to find a third way out through the offering, whilst having faith have been found to be important prerequisites on the road to paradoxical strategy. Which, successfully designed and implemented, is no longer a paradox but a sustainable strategy, though based on new assumptions.

Acknowledgments

The authors would like to express their deep gratitude to Billerud for welcoming the case study and the Bo Rydin Foundation for financing the research.

References

- Alvesson, M. & Sköldberg, K. 1994. *Tolkning och reflektion - Vetenskapsfilosofi och kvalitativ metod*. (First edn ed.) Studentlitteratur, Lund.
- Arbner, I. & Bjerke, B. 1994. *Företagsekonomisk metodlära*. Lund: Studentlitteratur.
- Baden-Fuller, C. & Volberda, H. W. 1997. Strategic Renewal - How Large Complex Organisations Prepare for the Future. *International Studies of Management & Organization*, 27(2), 95-120.
- Bessant, J., Lamming, R., Noke, H., & Phillips, W. 2005. Managing innovation beyond the steady state. *Technovation*, 25(12), 1366-1376.
- Billerud. (2005). Billerud Annual Report 2004. <http://www.billerud.com/Investor-Relations/Financial-Reports/2004/Annual-Report-2004/> .
- Billerud. (2007a). Billerud Annual Report 2006. http://www.billerud.com/Documents/annualreports/Annual_report_2006.pdf .
- Billerud. (2007b). Pressrelease: Billerud and design firm No Picnic form new company. <http://www.billerud.com/Media/Press-releases/2007/Billerud-and-design-firm-No-Picnic-form-new-company/> .

- Billerud. (2011a). Billerud Annual Reports 2004 - 2010. <http://www.billerud.com/Investor-Relations/Financial-Reports/>.
- Billerud. (2011b). Pressrelease: Year-end report January-December 2010. <http://www.billerud.com/Media/Press-releases/2011/Year-end-report-January-December-2010/>.
- Cowherd, D. M. & Luchs, R. H. 1988. Linking Organization Structures and Processes to Business Strategy. *Long Range Planning*, 21(5), 47-53.
- Cummings, S. & Daellenbach, U. 2009. A Guide to the Future of Strategy? The History of Long Range Planning. *Long Range Planning*, 42(2), 234-263.
- Dobni, C. B. 2010. Achieving synergy between strategy and innovation: The key to value creation. *International Journal of Business Science and Applied Management*, 5(1), 48-58.
- Dougherty, D. 1992. Interpretive Barriers to Successful Product Innovation in Large Firms. *Organization Science*, 3(2), 179-202.
- Eisenhardt, K. M. 2000. Paradox, spirals, ambivalence: The new language of change and pluralism. *Academy of Management Review*, 25(4), 703-705.
- Gibson, C. B. & Birkinshaw, J. 2004. The antecedents, consequences, and mediating role of organizational ambidexterity. *Academy of Management Journal*, 47(2), 209-226.
- Gould, R. M. 1996. Getting from strategy to action: Processes for continuous change. *Long Range Planning*, 29(3), 278-289.
- Gummesson, E. 2000. *Qualitative Methods in Management Research*. (Second edn ed.) Thousand Oaks, California: Sage Publications Inc.
- Gummesson, E. 2003. All research is interpretive! *Journal of Business and Industrial Marketing*, 18(6/7), 482-492.
- Gupta, A. K., Smith, K. G., & Shalley, C. E. 2006. The interplay between exploration and exploitation. *Academy of Management Journal*, 49(4), 693-706.
- Janssens, M. & Steyaert, C. 1999. The world in two and a third way out? The concept of duality in organization theory and practice. *Scandinavian Journal of Management*, 15(2), 121-139.
- Johnson, G. 1992. *Managing Strategic Change - Strategy, Culture and Action*. Long Range Planning, 25(1), 28-36.
- Kim, W. C. & Mauborgne, R. 2004. Blue ocean strategy. *Harvard Business Review*, 82(10), 76-84.
- Kim, W. C. & Mauborgne, R. 2005. *Blue Ocean Strategy - How to Create Uncontested Market Space and Make the Competition Irrelevant*. Boston: Harvard Business Review Press.
- Lewis, M. W. 2000. Exploring paradox: Toward a more comprehensive guide. *Academy of Management Review*, 25(4), 760-776.
- Luscher, L. S. & Lewis, M. W. 2008. Organizational change and managerial sensemaking: Working through paradox. *Academy of Management Journal*, 51(2), 221-240.
- Magnusson, M. & Martini, A. 2008. Dual organisational capabilities: from theory to practice - the next challenge for continuous innovation. *International Journal of Technology Management*, 42(1-2), 1-19.
- March, J. G. 1991. Exploration and Exploitation in Organizational Learning. *Organization Science*, 2(1), 71-87.
- Markides, C. 1997. Strategic innovation. *Sloan Management Review*, 38(3), 9-23.
- Markides, C. 2001. Strategy as Balance: From "Either-Or" to "And". *Business Strategy Review*, 12(3), 1-10.
- Markides, C. 2004. What is Strategy and How Do You Know If You have One? *Business Strategy Review*, 15(2), 5-12.

- Mintzberg, H. 1994. *The Rise and Fall of Strategic Planning*. Hertfordshire: Prentice Hall International (UK).
- Mintzberg, H. & Quinn, J. B. 1992. *The Strategy Process - Concepts and Context*. Englewood Cliffs: Prentice Hall International, Inc.
- Normann, R. (2001). *Reframing business - When the Map Changes the Landscape*. John Wiley & Sons Ltd, Chichester.
- Normann, R. & Ramirez, R. 1998. *Designing interactive strategy - from value chain to value constellation*. Chichester: John Wiley & Sons Ltd.
- O'Reilly, C. A. & Tushman, M. L. 2004. The ambidextrous organisation. *Harvard Business Review*, 82(4), 74-81.
- Olander Roesse, M. & Olsson, A. 2012. Challenging the strategy paradigm within the paper packaging industry. *International Journal of Business Science and Applied Management*, 7(2), 1-12.
- Olander-Roesse, M. 2007. The role of the supply chain perspective for increased customer orientation. In J. M. T. B. A. C. M. Chandra Lalwani (Ed.), *Annual Logistics Research Network (LRN) conference* pp. 660-665. The Chartered Institute of Logistics and Transport (UK).
- Olander-Roesse, M. 2008. *Towards a new business paradigm - A study of the paper packaging industry*. Lund: Department of Design Sciences, Division of Packaging Logistics, Lund University, Media-Tryck.
- Olander-Roesse, M. & Olsson, A. 2007. Adapting to changes in the supply chain – Challenges to re-defining the supply chain for increased customer orientation and product innovation within the paper packaging industry. In R. Lamming (Ed.), 16th annual IPSERA conference.
- Patton, M. Q. 2002. *Qualitative Research & Evaluation Methods*. (3rd ed.) Thousand Oaks: Sage Publications, Inc.
- Phillips, W., Lamming, R., Bessant, J., & Noke, H. 2006. Discontinuous innovation and supply relationships: strategic dalliances. *R&D Management*, 36(4), 451-461.
- Poole, M. S. & Van De Ven, A. H. 1989. Using Paradox to Build Management and Organization Theories. *Academy of Management Review*, 14(4), 562-578.
- Porter, M. E. 1996. What Is Strategy? *Harvard Business Review*, 74(6), 61-78.
- Raisch, S., Birkinshaw, J., Probst, G., & Tushman, M. L. 2009. Organizational Ambidexterity: Balancing Exploitation and Exploration for Sustained Performance. *Organization Science*, 20(4), 685-695.
- Rothwell, R. 1994. Towards the Fifth-generation Innovation Process. *International Marketing Review*, 11(1), 7-31.
- Sarkees, M. & Hulland, J. 2009. Innovation and efficiency: It is possible to have it all. *Business Horizons*, 52(1), 45-55.
- Simons, R. 1995. *Lever of control: how managers use innovative control systems to drive strategic renewal*. Boston, Massachusetts: Harvard Business Scholl Press.
- Smith, W. K., Binns, A., & Tushman, M. L. 2010. Complex Business Models: Managing Strategic Paradoxes Simultaneously. *Long Range Planning*, 43(2-3), 448-461.
- Stuart, I., McCutcheon, D., Handfield, R., McLachlin, R., & Samson, D. 2002. Effective case research in operations management: a process perspective. *Journal of Operations Management*, 20(5), 419-433.
- Tidd, J., Bessant, J., & Pavitt, K. 1997. *Managing Innovation - Integrating Technological, Market and Organizational Change*. Chichester: John Wiley & Sons.
- Tushman, M. L. & O'Reilly, C. A. 1996. Ambidextrous organizations: Managing evolutionary and revolutionary change. *California Management Review*, 38(4), 8-&.

- Volberda, H. W., Baden-Fuller, C., & van den Bosch, F. A. J. 2001. Mastering strategic renewal - Mobilising renewal journeys in multi-unit firms. *Long Range Planning*, 34(2), 159-178.
- Voss, C., Tsikriktsis, N., & Frohlich, M. 2002. Case research in operations management. *International Journal of Operations & Production Management*, 22(2), 195-219.
- Whipp, R., Rosenfeld, R., & Pettigrew, A. 1989. Culture and Competitiveness - Evidence from 2 Mature Uk Industries. *Journal of Management Studies*, 26(6), 561-585.
- Whittington, R. 1997. What is strategy and does it matter. London: International Thomson Business Press.
- Williamson, P. J. 2010. Cost Innovation: Preparing for a 'Value-for-Money' Revolution. *Long Range Planning*, 43(2-3), 343-353.
- Yin, R. K. 2003. Case study research: design and methods. (3rd ed.) Thousand Oaks: Sage Publications, Inc.

Biographies

Malin Olander Roese is a Researcher and Ph.D. Candidate at the Department of Design Sciences, Packaging Logistics, Faculty of Engineering LTH, Lund University in Sweden. Her research focuses on strategic management and particularly strategic change, customer orientation and innovation within primary industries like the forest, paper and packaging industry. E-mail: malin.olander@plog.lth.se

Mats Magnusson is Professor of Product Innovation Engineering at the School of Industrial Engineering and Management, KTH Royal Institute of Technology, and Director of the Institute for Management of Innovation and Technology in Sweden. His main research interests are within the field of innovation management, and then in particular questions related to strategic and organizational issues. E-mail: matsmag@kth.se

Paper IV

Strategic change: a journey towards new meaning?

- Semantic analysis of corporate communication

Abstract

Strategic change, infused with new data, perspectives and concepts may change the inherent meaning of the central tenets in an existing strategy. It taps into the cognitive aspects of a journey where language, in verbal and written form, aids in the process of communicating, understanding and creating new meaning. Hence, it comes as no surprise that communication is argued to be an important means of forming and executing strategy, particularly if that strategy involves change.

Thus far corporate communication has been the objective of extensive and predominately qualitative analysis of written content, with a focus on identifying and demonstrating strategic intent or reorientation. The objective here is to take a different route, not yet explored in the field of strategic management and change. Leaning on a longitudinal and qualitative case study of strategic change the aim is twofold: Firstly, to propose a method for quantitative analysis of semantic content of texts and statistically test the semantic development over time in one organisation. Secondly, to evaluate and discuss the results of a quantitative semantic analysis in relation to qualitative findings of the same organisation.

By applying latent semantic analysis (LSA), we quantified the semantic content of annual reports and press releases between 2001 and 2010, derived from one company in the paper packaging industry. Using this method, we statistically analysed significant changes in semantic content across the ten-year time period studied. The results indicate interesting avenues for continued and wider use of quantitative semantic analysis in contributing to the understanding of semantic development and strategic change.

Keywords: Strategic change, Communication, Cognition, Latent semantic analysis, Paper Packaging industry

1. Introduction

Communication is argued to be important in the formulation and implementation of strategy and strategic change (Simons, 1995; Porter, 1996; Quinn, 1996; Higgins & Mcallaster, 2004). Communication plays a role both in terms of manipulation and control, and for creating new meaning and practice (Brown, Collins, & Newman, 1989; Hartelius & Browning, 2008; Rogers, Gunesequera, & Yang, 2011). The use of a common, and preferably unpretentious language is, for example, argued to facilitate in closing the strategy-to-performance gap, and to enhance learning, change and strategic innovation (Pfeffer & Sutton, 1999; Marshak, 2002; Jacobs & Heracleous, 2005; Mankins & Steele, 2005). Communication and dialogue are likewise argued to be integral parts of strategic control through interactive control systems, and for discussions on performance, risk, and business ethics (Simons, 1995; Quinn, 1996; Melnyk, Hanson, & Calantone, 2010).

The value and use of rhetoric, dialogue, narratives and metaphors in verbal and written communication in this context are well explored from multiple perspectives. Language, being one of our most important means for communication, influences and is influenced by situations, negotiations and activities within an organisation and its surrounding environment (Brown et al., 1989; Györi, 2002). Reflective dialogue is considered to be a prerequisite for changing mental models, and an enabler of strategic change and innovation (Markides, 1997; Jacobs & Heracleous, 2005). A necessary first step for critically reviewing mental models is to render them visible through the use of language and metaphors: *“During such inquiry, a collective language is likely to emerge. It is through this common language that emergent, new mental models can take shape”* (Jacobs & Heracleous, 2005, p. 347).

At the other end of the communication spectrum are written artefacts such as employee magazines, corporate brochures, press releases, annual reports and more. These are in turn important tools for forming an organisation’s identity and managing perceptions and expectations in relation to internal and external stakeholders (Fiol, 1995; David, 2001; Prasad & Mir, 2002). An organisation’s language, made up of its choice of words expressed in verbal or written forms, is an important cultural artefact in itself. Homburg and Pflesser (2000) found that an organisation aspiring to be market oriented will not exhibit behaviours to this end without a market-oriented language.

Thus far, the growing interest in communication and rhetoric in the management literature is often dealt with in relation to manipulation and control: *“Specifically, rhetorical studies and management are concerned with power as it relates to language”* (Hartelius & Browning, 2008, p.14). Previous studies in the area and in relation to strategy are predominately qualitative, applying content analysis and word frequency counts to interview transcripts and public documents. For example, Landrum (2008) shows how strategic intent and posture are revealed in letters to shareholders using a qualitative narrative analysis. Rutherford (2005) examines rhetorical ploys and Pollyanna effects by studying narratives in corporate annual reports using word frequencies as a tool of analysis and a linguistic based approach.

The aim here is to take a different route, which to the authors’ knowledge has not yet been explored in the field of strategic management and change. Seeing the importance of language

as a tool for communicating strategy or a new strategic direction, and a potential marker of certain behaviours, we address the question of how language, and more specifically the semantic content in an organisation's written communication, can shed light on the understanding of a strategic change process. We applied a quantitative analysis method for measuring semantic content, which is the underlying meaning of words and narratives. We did this based on findings from a longitudinal case study of strategic change, and the notions put forth in the literature that an organisation's language is a tool as well as a result of a cognitive processes (such as strategic change).

The aim was twofold: Firstly, to propose a method for quantitative analysis of semantic content of texts and statistically test the semantic development over time in one organisation. Secondly, to evaluate and discuss the results of a quantitative semantic analysis in relation to qualitative findings of the same organisation.

We start with a theoretical discussion on strategic change, the role of communication and how different methods are used for studies thereof. Then we briefly present previous findings from a qualitative case study, followed by a description of the methods used here. The results from the quantitative semantic analysis are presented and discussed in relation to previous qualitative findings. This is followed by conclusions and suggestions for the continued use of similar methods in contributing to the understanding of semantic development and strategic change.

2. Strategic change, communication and research approaches

Normann (2001) argues that "*The core process of a company in the long term is to form new 'dominating ideas'*" (ibid., p. 149). Describing the evolution of strategic paradigms, Normann (2001) shows how the competitive dominance or edge has moved from the industrial economy where resource transformation, standardisation and production were at the heart of business logic and management, to an economy where the crucial competence is to organise value creation where the customer is not only an important source of business but regarded as a co-producer. Simons (1995) similarly describes the differences between 'old' and 'new' strategic paradigms from 'top-down strategy', 'standardisation' and 'according to plan' to 'customer/market-driven strategy', 'customisation' and 'continuous innovation' Simon goes on to argue that a shift or co-existence between the old and the new reflects a deeper tension between basic philosophies of management and control. For industries that originate from the industrial economy, this may imply a dramatic conceptual and real change in how customers are viewed and how value is created.

According to Mintzberg and Quinn (1992) the most difficult challenge in managing strategic change is the move from a familiar domain to one that is less well-defined. It can take place through continuous and incremental improvement, or through a more radical renewal of the business (Quinn, 1978; Normann, 2001). This is a process that in turn can be reactive or proactive, temporal (different phases of stability and change) and spatial (separated from the rest of the organisation) (Baden-Fuller & Volberda, 1997; Normann, 2001). The process of forming new 'dominating ideas', or changing mental models underlying the strategy paradigm

of an organisation is foremost a cognitive challenge (Markides, 1997; Normann, 2001; Jacobs & Heracleous, 2005). For an organisation going through strategic change, new perspectives, competencies, tools and models may come in the form of new concepts with new meaning that has to be addressed. For example, an organisation aiming for a competitive advantage through a strategy of 'differentiation', coming from one of 'cost' (Porter, 1985; Porter, 1996), or heading for a 'Blue Ocean' (Kim & Mauborgne, 2005), will instil new meaning (and practice if successful) in relation to terms like 'value', 'customer orientation', and 'innovation'.

Johnson (1992) argues that "...a change in emphasis from control of costs to an emphasis on monitoring effective customer service, is not simply a means for monitoring the progress of a changing strategy, it is also a major signal of a change in corporate culture" (Johnson, 1992, p. 35). Corporate culture where language systems and metaphors are central ingredients in forming an organisation's value systems and norms, are in turn important levers in strategic change. As put by Higgins and McAllaster (2004): "*If strategy and cultural artifacts are not aligned, then employees are uncertain which messages are real – the old familiar, comfortable ones supported by lots of well-known cultural artifacts, or the new messages about a new strategy that are in conflict with the old, still in place cultural artifacts*". Homburg and Pflesser (2000) show that a market-oriented language, being a cultural artefact, is a prerequisite for market-oriented behaviour.

Seeing that language plays an important role in conveying and creating new meaning and behaviour, it is not surprising that communication is argued to be an important ingredient in leadership and strategic management in general and for change and innovation in particular (Porter, 1996; Markides, 1997; Mankins & Steele, 2005; Jacobs & Heracleous, 2005; Groysberg & Slind, 2012).

Thus far research has provided insight into the relationship between corporate communication, language and control as well as rhetorical choices for communicating strategic intent and posture (Landrum, 2008). In a recent qualitative study by Rogers et al. (2011), they examined textual components in strategic statements over time, showing how managers may use language to articulate shifts in strategy. However, according to Rogers et al. (2011) there is limited research on the linguistic development within an organisation over time. There is equally, to our knowledge, no quantitative research on the semantic content of an organisation's communication over time contributing to this field.

Public documents like annual reports and executive statements are important media by which companies communicate with their shareholders, the stock market and society at large (Fiol, 1995; Prasad & Mir, 2002). Prasad and Mir (2002) argue that "...the texts of annual reports and letters to shareholders contain important symbolic meanings that need to be unveiled through interpretation" (ibid., p. 110). Even though these may be written in a way to convey a certain intentional message, Fiol (1995) argues that future research comparing different forms of communication is important.

Applying a quantitative semantic analysis in an organisational context offers another potential route. By addressing the need for increased understanding of how shifts in strategy are

reflected in language, we wanted to measure if and how the semantic content of an organisation's written communication changes over time by applying latent semantic analysis (LSA). LSA is a mathematical method for computer modelling and simulation of the meaning of words and passages by the analysis of representative corpora of natural text. It is also a method for analysing the underlying semantic content. It has primarily been used so far in cognitive science and educational research (Landauer & Dumais, 1997). A few recent organisation and management studies have used LSA to examine verbal communication in design teams, showing how semantic coherence within teams creates shared understanding, and how this computational tool can be used to detect how teams function (Dong, 2005; Yang & Helander, 2007). Wallemacq and Jacques (2009), albeit not using LSA, introduce the software *Evoq* to visualise the semantic meaning of words drawn from qualitative texts.

As a strategic change process progresses, one could assume that a new language is used and developed not only in lexical terms (i.e. new vocabulary) but also in semantic terms (i.e. the inherent meaning of words and narratives). For example the *semantic* representation of the words *strategy*, *innovation*, and *customer* may be similar (i.e. closely related in a particular context), whereas the non-semantic (lexical) representation of these words in terms of word frequency, dictionary definition or phonetics may have little or no similarity. Given the link between strategy, market orientation and innovation (Frambach, Prabhu, & Verhallen, 2003; Dobni, 2010) it could be assumed that the development of a market-oriented language influences the verbal and written communication as a whole.

Hence, we wanted to measure the potential changes in language as a whole, measuring the use of language and choice of words in a context. We hypothesised that an organisation going through strategic change, in particular towards increased market orientation and innovation, will display a change in language and more specifically a change in the semantic content – the underlying meaning of words or narratives – over time.

3. Strategic change in practice – findings from a qualitative case study

The study presented here is linked to a longitudinal qualitative case study (Olander-Roese & Olsson, 2007; Olander-Roese, 2008; Olander Roese & Olsson, 2012). A brief introduction of the study and prior findings is in place.

One company in the Swedish forest and paper packaging industry was studied between 2004 and 2010 with the overarching purpose to explore and contribute to the understanding of strategic change, and the link between strategy, customer orientation and innovation. The research, based on a qualitative and interpretive approach (Alvesson & Sköldbberg, 1994; Gummesson, 2000; Patton, 2002), focused on challenges and enablers of strategic change, the process in itself and the related managerial actions, decisions and organisational reactions. The data collection consisted primarily of in-depth interviews, observations and participation as well as studies of the company's written material.

The company, a manufacturer of paper packaging material named Billerud, was formed in 2001 through a merger of three existing Swedish paper mills and introduced on the Stockholm Stock Exchange. The Swedish forest industry, of which the paper packaging industry is

central, is one of Sweden’s most important primary industries and makes up 12% of the nation’s GDP. It is characterised by capital intense processes and products with high knowledge content. Efficient production processes, volume output and cost focus have been at the core of the forest industry paradigm. After the formation in 2001, Billerud spent the first three years streamlining the activities of the founding mills and developing a strategy. In 2004 Billerud revised their strategy and the next step was to be taken. An *increased market orientation* and *new product development* were central themes of the strategy. In 2005, the founding CEO was replaced, followed by a review and change in the company’s objectives, financial targets and strategy. This time around an increased focus was placed on the direction set out in 2004, combining *world class process efficiency* and *customer focused development*. Processes for innovation and market learning were developed, the organisation restructured, new ventures launched, and the ‘offering’ extended beyond the physical product (Olander Roesé & Olsson, 2012). In summary, the journey of strategic change studied between 2004 and 2010 can be described as a move from a production oriented, cost-focused business towards a more market and customer oriented one. The new financial targets set in 2006 were reached in 2010.

In Table 1, the introductory words of CEO statements as communicated in annual reports further depict the strategic journey from 2001 to 2010 along with turnover and margin statistics. One could conclude when comparing the fluctuating financial developments over the years with the qualitative findings thus far that the financial results are limited. But given the importance of communication and language in strategy and strategic change suggests measures for other outcomes beyond profit maximisation, such as semantic development (See e.g. Whittington, 1997; Dufour & Steane, 2006). This inspired the present study.

Table 1. CEO statements, turnover and margin between 2001 and 2010 (Billerud, 2011).

YEAR	CEO STATEMENT IN ANNUAL REPORTS 2001-2010 Introduction (text in bold by author)	TURNOVER Net sales, Msek	MARGIN
2001	“ The new Billerud – The past year was dominated for Billerud by the merger of the three mills at Gruvön, Karlsborg and Skärblacka. Extensive work was required to co-ordinate production and find models for co-operation between the mills. During the year we have also formed functions for the head office and established a sales organisation with offices in seven European countries”.	6910	19%
2002	“The past year was Billerud’s first full year as a listed company. While work in 2001 was dominated by efforts aimed at creating an efficient business , our focus in 2002 was on realising the plans made when we formed the company. As we have worked to establish ourselves on the market we have seen confirmation of the fact that the Billerud brand, thanks partly to its long tradition, is a strong name in the forest industry. Together with our strategy of focusing on niches where we are already strong, the name has undoubtedly contributed to the large interest shown in Billerud both by the market and by investors”.	7067	17%

2003	“At the formation of Billerud we produced a plan for the first three years where the focus was on establishing the company and consolidating our business. During this first phase our work has focused on creating procedures for our working methods and on realising the opportunities for organic growth and increased efficiency that were created through the co-ordination of three mills within a single company. Now that this phase is over I can state that Billerud is well established on the market and as a listed company. We have created a strong base , both financially and as an organisation, for the next phase of Billerud’s development”.	6992	16%
2004	“During its first years since formation Billeurd has co-ordinated the activities of its three Swedish mills and thereby created a niche business and established listed company focus on packaging paper. Synergies have led to increased production capacity, which has meant a significant rise in deliveries. Following the successful start it is now time to move to the second phase , in which the focus will be on increased market orientation . This will enable Billerud to meet new demands from customers and end-users. Increasing efficiency within the business will be equally important, and this will be done by cutting costs”.	7159	11%
2005	“ A renewal has begun . Billerud’s results were disappointing. Continued weak economic conditions and the dramatic rise in costs for energy, raw materials and chemicals affected us negatively. We have now implemented strong measures to transform our results and build a more modern, more efficient company”.	6823	-3%
2006	“Billerud undergoing change . After several years of faltering profitability, Billerud’s earnings trend was turned around in 2006. Prices could be raised slightly higher than costs increased. Combined with greater efficiency this meant a strong improvement in profits”.	7369	7%
2007	“The hard work continues . In 2007 we worked very hard and successfully to develop markets, customer relationships and products, to reduce costs and improve efficiency. Over the past 12 months we have raised prices and reduced our energy costs. However, increases in wood costs and currency changes impacted negatively on earnings. We will continue working intensively on our chosen course to make improvements”.	7758	8%
2008	“ A changed reality . Billerud’s positive development continued at the start of 2008. We were successful on the market and our customers appreciated our new business concepts and products. In the middle of the year a weakening in the industrial business cycle became more obvious, and by the end of the year the financial crisis had struck and the downturn was a fact. We were forced to face up to further challenges ”.	7792	4%
2009	“The resurgence . Describing 2009 in brief is almost impossible. We were plunged into a financial crisis and an economic slump with falling demand, plummeting prices and a financial market that practically stopped working all together. However, we handled the situation and bounced back very strongly at the end of the year. I think that in 2009 we really showed Billerud’s inherent strength”.	7760	4%
2010	“ Strong position for Billerud. I am pleased, happy and impressed with the progress that we made in 2010. Demand for our products rose very strongly over the year, resulting in an operating margin of 12%. I interpret that as proof of how strong our customer offering is”.	8828	12%

4. Method

The data analysed for this paper was retrieved from the Billerud company and consist of the written content of annual reports and press releases from the period 2001 to 2010. The semantic content was assessed quantitatively by applying latent semantic analysis (LSA). LSA generates a high dimensional semantic representation (semantic space) from a large corpus of natural language using information of co-occurrence words. The texts are then inserted into this space, so that the statistical tests can be applied to the semantic representation that is associated with the texts. The method is described below. The analyses were conducted using *SemanticExcel*, a web-based software for scientific and statistical analysing of semantic representation (www.semanticexcel.com).

Creating a semantic space

Semantic spaces are generated by applying computational methods to large text corpora. This space is a representative frame of reference for the meaning of different words (Landauer & Dumais, 1997). For this paper, an English semantic space was created. The texts generated by

the subjects (i.e. the annual reports and press releases) were not sufficiently large to construct a high quality representation. Instead we collected a corpus based on 1.6 GB of English news articles from 2007. The latent semantic analysis was generated by the *Infomap* software (<http://infomap-nlp.sourceforge.net/>), using the following parameters settings: the number of words in the space (15k), the number of context columns (20k), the context size (± 15 words), the number of SVD iterations (500), and the number of dimensions in the semantic representation (100). The result of this analysis was a semantic quantification of the 120k most frequent words in the corpus, where each word is described by a 100 dimensional vector. Words that are semantically similar (synonyms) have similar representation in this semantic space.

Empirical data – texts to be analysed

The empirical data consisted of written expressions in the form of annual reports and press releases from the years 2001 to 2010, in total ten annual reports and 194 press releases in English. The particular organisation was selected based on a previous qualitative and longitudinal case study of strategic change (Olander-Roese, 2008; Olander Roese & Olsson, 2012). With the limited reference to similar studies and applications of LSA, it was important to choose an object of study where we could relate to data and findings beyond the ones in focus here in order to evaluate and discuss the results of LSA. The material for analysis – annual reports and press releases – was selected based on public access and to ensure representation of comparable texts for all years. The annual reports cover (excluding financial statements): statements from the CEO/president, a summary of the year's major events and descriptions of business concepts, vision, strategy, targets, markets and trends, production, product and business areas, human resources, environmental issues, production and investments, risk analysis, etc. The press releases include communications of financial reports and market outlook, product launches and changes in production or number of employees, etc. As already noted, the annual reports and other public documents are an important means for corporate communication. One limitation put forward by Fiol (1995) in addition to the potential of formulations aimed at conveying a certain and particular positive image of the events, is that annual reports are often produced by external consultants. Nevertheless, the information and language employed should, to our knowledge and personal experience, adhere not only to legal requirements but also the voice of the organisation and the people interviewed for content.

Data preparation and procedure of analysis

Annual reports (10) and press releases (194) from the years 2001 to 2010 were downloaded from the website of the case company or sent as PDFs from the company. All documents were transferred to unique text files (txt.), 204 files in total, and prepared for analysis by removing financial statement tables, figures, images and data such as contact information, telephone numbers and links to other documents. Each file was named with the corresponding date.

The analysis encompassed three steps: First, each document (i.e. text file) was transformed to a semantic representation. This was done by adding the semantic representation of the words that were presented in each document, and by normalising the length of the resulting vector to

one. This generated one semantic representation for each document, with the same number of dimensions as the original semantic space.

Second, we created a semantic scale spanning two sets of documents. This semantic scale measures how semantically similar one document is to two sets of documents. The scale spans from -1 (maximally similar to set 1) to +1 (maximally similar to set 2), and where a value of zero indicates that it is equally similar to both sets. We summarised each set of documents by aggregating all semantic representations in the set, and normalised the resulting vector to one. Then we created a “difference” vector, where the vector representing the second set was subtracted from the vector representing the first set, and where the resulting vector was normalised to one. Finally, we measured the semantic similarity between the difference vector and the vector representing a document that we wanted to measure on the semantic scale. The semantic similarity between the vectors are measured as the cosine of the angle of the vectors. Since the lengths of the vectors were normalised to *one*, the cosine of the angle was calculated as the sum of the pairwise multiplication of each semantic dimension. Hence, if the vectors were identical the value was +1 and if exactly opposite the value was -1, and if unrelated, zero. Thus, 1 signifies extremely high similarity/relatedness, and 0 signifies no relatedness. However, while calculating the difference vectors, we removed the document that we wanted to measure on the semantic scale. This was necessary to avoid bias that otherwise would occur when the document to be measured was included in the difference vector. Thus, the difference vector was slightly different for each document that was measured. The semantic scale of each document was simply the semantic similarity between this document and the difference vector, where a positive value indicate a resemblance to set one, and a negative value a resemblance to set two.

Third, we calculated the appropriate statistic on the semantic scale. To measure whether the two sets of documents differed in the semantic scale we used a two tailed t-test, where $p < 0.05$ indicated a significant result. To measure the size of the difference we calculated z-values (z), by subtracting the mean value of the second set from the mean value of the first set and dividing the resulting value by the pooled standard deviation.

5. Results and discussion

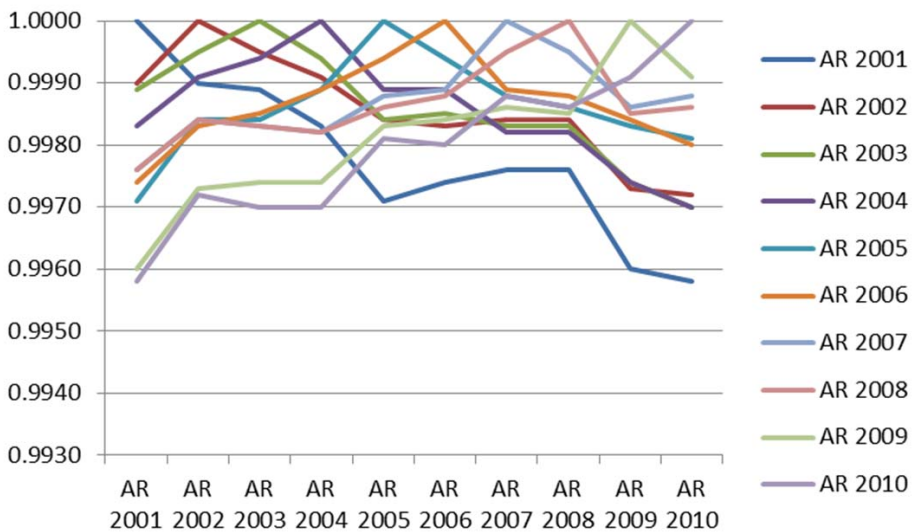
The following results are presented and discussed: first, the semantic similarity between annual reports and annual summaries of press releases respectively, comparing all pairwise years and the consecutive development; second, the identification and measurement of significant keywords of pairwise years.

Semantic similarity of annual reports

In analysing the annual reports we used words rather than documents as the underlying unit of analysis simply because statistics could not be based on a single data point as only one report is related to each year. For example, if year 2005 consisted of 10,000 words then a set of data (e.g. set 1) consisted of the 10,000 semantic vectors representing these words. The results are presented by all pairwise combinations of years (Figure 1) and by changes across consecutive years (Figure 2).

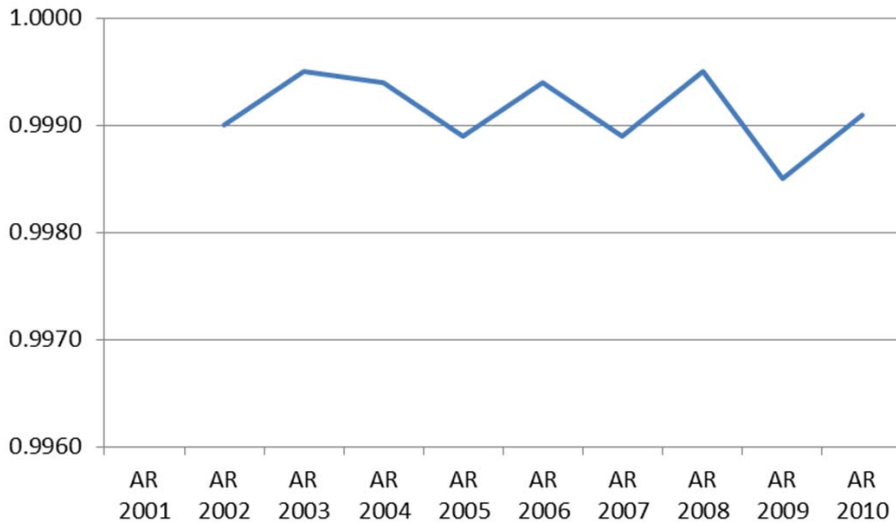
First, the results show that the semantic similarity scores (s) diminish gradually over time between the annual reports (AR) from 2001 to 2010, indicating a change in the semantic content (i.e. inherent meaning of words and narratives) across time. Figure 1 illustrates the semantic similarity score of each year in relation to the preceding and following years as well as in relation to itself ($s=1.0$). The semantic content of annual report 2001 (AR 2001) is identical to itself ($s=1.0$), highest in similarity to AR 2002 ($s=0.9990$), and lowest in similarity compared to AR 2010 ($s=0.9958$). The results show high significance. The similarity score between 2001 and 2010 rendered a p -value of 0.000 and z -value of 86.697. The analysis further shows that the semantic similarity between directly preceding or following years is the highest: AR 2004 is most similar to AR 2003 ($s=0.9994$) and 2009 to 2010 ($s=0.9991$). The semantic content in annual reports between 2001 and 2004 have the lowest similarity to AR 2010, and the annual reports between 2005 and 2010 have the lowest similarity with AR 2001 (i.e. the semantic distance becomes greater relative to the first year and progressively closer to the last year).

Figure 1: Semantic similarity scores (s) of annual reports (AR) 2001-2010



Second, Figure 2 shows that changes in semantic content across consecutive years differ. The semantic similarity scores between years can be seen as a measure of semantic change, sometimes called “coherency” (Foltz, Kintsch, & Landauer, 1998). Figure 2 illustrates the semantic similarity of consecutive years, where each year is related to the following year. Hence, the semantic similarity score between 2001 and 2002 is $s=0.9990$, between 2002 and 2003 is $s=0.9995$, etc. The results show a higher semantic similarity between 2002-2003 ($s=0.9995$) and 2007-2008 ($s=0.9995$), and lower similarity between 2004-2005 ($s=0.9989$) and 2006-2007 ($s=0.9989$). The lowest similarity score is between 2008 and 2009 ($s=0.9985$), which shows a significant value ($p=0.000$; $z=38.5$).

Figure 2: Semantic similarity scores (s) of consecutive years, annual reports (AR) 2001-2010



In summary the semantic development in annual reports yielded a gradual variation of the semantic content ranging from $s=0.9958$ to 1.000. If we compare the results of the quantitative latent semantic analysis (LSA) with the findings from interviews and documentation in the qualitative study (see brief summary, section 3) the low semantic similarity between 2001 and 2010 (as shown in Figure 1) and gradual shift (Figure 2) may not be surprising. The semantic distance does become greater relative to the first year and progressively closer to the last year. Seeing the company's semantic development over the years, also considering the financial results, this could be interpreted as a continuous or incremental strategic change.

An examination of the actual content of the annual reports reveals that there is a notable difference in terms of themes, expressions and highlights that are in line with the results of the consecutive development (Figure 2). The three lowest points of semantic similarity between the years shown in Figure 2 are of interest (see 2005, 2007 and 2009). Firstly, in 2004 in line with the revised strategy, 'market orientation' was emphasised for the first time with a separate chapter in the annual report on 'Customer focus'. In the following year, 2005, a new CEO arrived and the company experienced a decrease in turnover and negative margins. This indicates that the lower similarity can be explained by the difference in semantic content between the years (and the 'dip' in 2005). It could also be interpreted as the focus on 'market orientation' becoming secondary in times of organisational changes and financial turbulence. 2006 (similar to 2004) was characterised by the introduction and communication of a new strategy with an increased emphasis on customer-focused development. The following year's annual report, 2007, communicated the efforts to implement the new strategy, with an increased focus on environmental and sustainable development issues and new business initiatives. The low similarity with 2006 was therefore surprising; however, a closer look

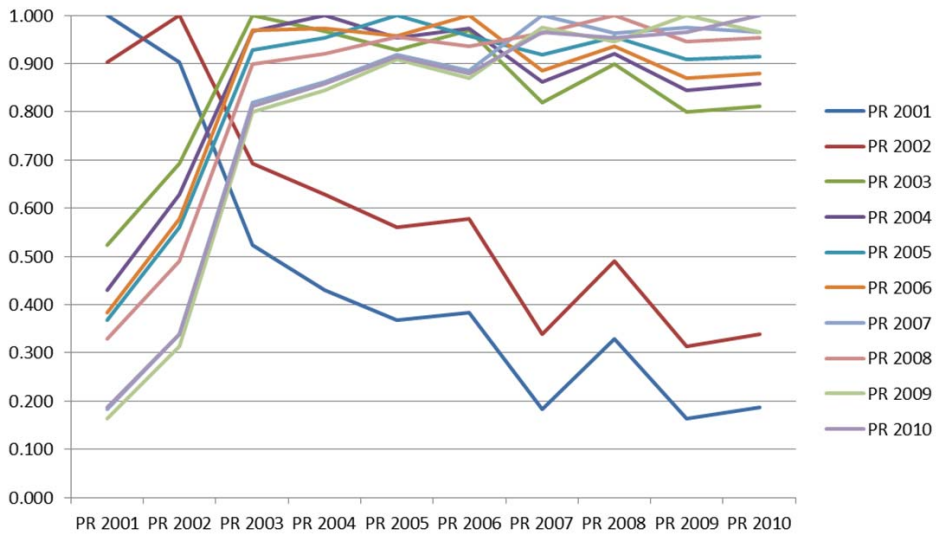
revealed the equally continued concentration on production efficiency and cost reductions, which are prerequisites, but not drivers for market orientation per se in terms of customer focused language. Finally, 2009 is the year after the 2008 financial crisis, and the time when the company communicated their vision and sustainability targets for the first time, as well as launching a new product, which was much communicated.

Semantic similarity of press releases

We measured the semantic scale between all pairwise combinations of press releases aggregated over a year (i.e. 2001-2010), where the press releases were the unit of analysis. The results are presented in Figures 3 and 4. The preferred level of analysis for conducting the statistical analysis was on the level of press releases because it answers the question whether the results can be generalised across units of press releases. In the annual report analysis described above, it was not possible to use annual reports as the underlying units of analysis because there is only one annual report available each year, so that the pooled variance in the t-test could not be calculated.

First we illustrate the semantic similarity score between the years based on the press releases for each year in relation to the preceding and following years as well as in relation to itself (Figure 3). Hence, the results show the semantic content of press releases 2001 (PR 2001) is identical to itself ($s=1.0$), highest in similarity to PR 2002 ($s=0.9024$), with the lowest similarity to PR 2009 ($s=0.1627$). The similarity score between 2001 and 2009 rendered a p -value of 0.000 and z -value of 9.099. In summary, the years 2001 and 2002 appear to be exceptions in semantic content compared to the other years. PR 2003 through PR 2010 all show the lowest similarity score in comparison with 2001 with appropriate levels of significance. Where the annual reports showed a gradual and limited change of semantic content over the years, the differences indicated through the press releases were more dramatic, considering also the greater variance of actual similarity scores ranging from $s=0.1627$ to 1.000 (compared to $s=0.9958$ to 1.000 for annual reports).

Figure 3: Semantic similarity scores (s) of press releases (PR) 2001-2010



The semantic similarity between consecutive years based on press releases yields an equally more varied picture (Figure 4) than the corresponding development in annual reports (Figure 2). As shown in Figure 4, there is a significant change in semantic similarity between 2002 and 2003 ($s=0.69$, $z=2.52$); however no other consecutive years show statistically significant differences. 2002 and 2003 were also statistically different from all subsequent years (2004-10). Finally, 2003 differed from 2007, 2009, and 2010, and 2004 differed from 2009 and 2010.

Figure 4: Semantic similarity scores (s) of consecutive years, press releases 2001-2010



In summary the semantic changes in press releases across years shows a significant change between 2002 and 2003, and there were no differences between other subsequent years (Figures 3 and 4). These results could not be directly compared with the results from the annual report, because the statistics in the annual reports were based on words as the underlying unit of observation.

However, studying the actual content of the press releases yielded a difference in themes and highlights, in line with the results of the consecutive development (Figure 4). The significant dip in 2003 with a low semantic similarity compared to 2002 can be understood through the sole focus on financial communication in the two preceding years. While financial communication is aimed for the (financial) market, the language is restricted in the sense that it has to adhere to the format for financial communication of a listed company. In 2003, an acquisition and product launch contributed to differentiating the semantic content. Interestingly, there is no dip in the consecutive semantic development in annual reports (Figure 2). A potential explanation for this is the differences in content and purpose of annual reports and press releases. Press releases are predominately financial statements, interim reports or related messages (128 out of 194 in the study) and limited in text aimed at relevant stakeholders, particularly on the financial market. The annual reports on the other hand allows for more elaborate descriptions and an opportunity to, in retrospect, prioritise areas to highlight with the exception of fulfilling legal requirements for the financial reporting. It is aimed at a broader audience. Furthermore, press releases are bound to show greater variance given that they are more event driven whereas annual reports provide summaries. The dip in 2007 (i.e. low semantic similarity with 2006), even if not significant, corresponds with that of the annual report. The consecutive similarities between the years (2007 to 2010) are notable in that they show an increased number of press releases communicating product and service launches, alliances, co-operation projects with customers and product awards and personal statements compared to previous years.

Significant keywords across the years

A further analysis of the semantic content in annual reports was made by identifying significant keywords of pairwise years. This was done by first making a frequency count of the words in the annual reports and then comparing these frequencies to words in the corpus used for generating the semantic representation (i.e. constituting a norm of word frequencies). We selected the 100 most overrepresented words in the annual reports, by making a chi-square test for each unique word, and where all the selected words were significantly overrepresented following Bonferroni corrections for multiple comparisons. These 100 keywords were selected as a set of words to compare text related to one year in relation to another year (see Table 2). This analysis was carried out using the chi-square test with the Bonferroni correction method just described. Hence, the analysis was limited to the 100 most overrepresented words, rather than all words in the reports. Table 2 (to be read horizontally) shows all significant words for 2001 compared to 2010, 2005 compared to 2001 and 2010, and finally 2010 compared to 2001 and 2005.

Comparing the significant keywords across the years provides a further indication of the semantic development. From significant keywords of ‘turnover’, ‘investments’, ‘segments’, ‘tonnes’, ‘production’ in 2001, to ‘customer’ entering in 2005, albeit still communicating cost-reduction measures and investments in production processes through ‘electricity’, ‘wood’, etc. The keywords for 2010, in relation to previous years, are primarily related to the company’s offering, the market and sustainability positioning, which can be seen as a result of the strategic change initiated in 2004 and in 2006.

Table 2. Significant keywords of pairwise year and their chi-square test scores with Bonferroni correction

	AR 2001		AR 2005		AR 2010	
AR 2001			n/a		turnover 22.2	
					investments 19.9	
					segments 15.9	
					tonnes 15.2	
					production 13.4	
					currencies 11.8	
					stora 11.8	
					enso 10.5	
					kraft 9.1	
AR 2005	costs 32.0				costs 43.7	
	electricity 24.1				boilers 20.0	
	wood 23.0				electricity 19.1	
	sacks 12.9				turbines 15.5	
	boilers 10.2				investments 14.8	
	customer 9.8				reductions 10.9	
					coated 10.9	
AR 2010	packaging 54.3	demand 17.9				
	solutions 13.2	packaging 13.1				
	sustainable 13.0	sustainability 10.6				
	fossil 11.8	sek 9.8				
	sustainability 11.8					
	renewable 10.8					

6. Conclusions and suggestions for future research

Summarising the presentation and discussion of results, a number of issues are of particular interest in relation to the aims of the study. Firstly, by quantifying the semantic content of the annual reports and press releases we have examined and statistically evaluated the semantic development, with several significant results. Secondly, having used LSA for the first time in this particular setting and study of strategic change we have demonstrated that it can be a helpful method in further analysing and contrasting qualitative findings in case study research. It can also serve as a starting point for a longitudinal qualitative study, providing indications of variations to consider on both an aggregated level and in relation to significant keywords.

While the results could be compared and contrasted with qualitative findings, they also provided some surprises in relation to the particular case studied here. One example is the difference between the years 2006 and 2007. Where the qualitative study (based on document analysis and interviews) concluded that the revised strategy in 2006 was followed by

(positive) developments of product and service launches and new business initiative in 2007, the LSA pointed to the equal emphasis on a continued focus on process efficiency and cost reductions. Moreover, the overall trend of the semantic development – where the semantic distance becomes greater relative to the first year and progressively closer to the last year – is equally interesting from the perspective of strategic change indicating a gradual and continuous change. This development is further enhanced given the resulting significant keywords, based not only on frequency but also on the semantic representation of these words.

Applying LSA to annual reports and press releases, which yielded somewhat different results that required different levels of analysis (i.e. words and document level), draws the attention to the different nature and purpose of corporate communication. Comparing the evolving semantic content between the two sources (Figures 2 and 4) begs the question whether these artefacts of corporate communication, and their semantic content, communicate change (i.e. are an effect of a strategic change) or if they influence change explicitly (aimed communication) or implicitly (through communication that might be required legally). Where the semantic content in annual reports in this particular case could be seen as an effect of strategic change, and a gradually developing one, the press releases may qualify as a representative of both. As noted in the literature, both are tools for corporate communication, written in adherence with legal and stock exchange requirements and/or with the aim to communicate a predetermined message to relevant stakeholders (Fiol, 1995; David, 2001). However, annual reports allow for more elaborate descriptions of important events, prioritised focus areas and more. Press releases are shorter in form, often event driven for reasons of legal or financial reporting requirements and/or with the objective to communicate a new product launch or collaboration.

We conclude that in this particular case the semantic content changed significantly over the time period covered, expressed through texts, and that an LSA as a quantitative method can be a complementary guide in a longitudinal qualitative study of strategic change. However, given the limited variation in semantic similarity scores over the years in annual reports (Figures 1 and 2), albeit statistically significant, indicate that strategic change may be limited expressed through the semantic content of corporate communication. Further and comparative research between actors and cases are important for future references.

It should be noted that the study was limited to one case and the type and amount of data found in annual reports and press releases. This is why continued research using LSA in the areas of strategy and change is recommended. We welcome similar applications of LSA as the one performed here, as well as studies encompassing larger amounts of data. Even though our results were largely significant, statistical methods benefit from more data.

Hence, beyond corporate communication, other written material, interview transcripts and media clips may be used. The number of actors can naturally also be extended, opening for comparative case studies within and between industries as well as studies at group and individual levels. One example would be to apply LSA to management teams similar to studies performed by Dong (2005) and Yang and Helander (2007). A possible avenue could

be to further develop the notions suggested by other authors, such as Kellermans et al. (2011), who argue that a high degree of strategic consensus in management groups improves strategy implementation in stable environments, with the likelihood of opposite effects in dynamic business environments. In applying LSA one could measure the semantic similarity between verbal expressions of individual actors (management team members) in relation to the strategic intent and with regard to the external environment.

Seeing that strategic change taps into the assumption and need for cognitive change, continued use of LSA would be most interesting to increase the understanding of how, if, why and when change occurs measured through semantic content of verbal and written, internal and public communication and documentation.

Reference List

- Alvesson, M. & Sköldböck, K. 1994. *Tolkning och reflektion - Vetenskapsfilosofi och kvalitativ metod*. (First edn ed.) Studentlitteratur, Lund.
- Baden-Fuller, C. & Volberda, H. W. 1997. Strategic Renewal - How Large Complex Organisations Prepare for the Future. *International Studies of Management & Organization*, 27(2), 95-120.
- Billerud. (2011). *Billerud Annual Reports 2001 - 2010*. <http://www.billerud.com/Investor-Relations/Financial-Reports/> .
- Brown, J. C., Collins, A., & Newman, D. 1989. Situated cognition and the culture of learning. *Educational Researcher*, 18(1), 32-42.
- David, C. 2001. Mythmaking in annual reports. *Journal of Business and Technical Communication*, 15(2), 195-222.
- Dobni, C. B. 2010. Achieving synergy between strategy and innovation: The key to value creation. *International Journal of Business Science and Applied Management*, 5(1), 48-58.
- Dong, A. 2005. The latent semantic approach to studying design team communication. *Design Studies*, 26(5), 445-461.
- Dufour, Y. & Steane, P. 2006. Competitive paradigms on strategic change: mapping the field and further research development. *Strategic Change*, 15(3), 129-144.
- Fiol, C. M. 1995. Corporate Communications - Comparing Executives Private and Public Statements. *Academy of Management Journal*, 38(2), 522-536.
- Foltz, P. W., Kintsch, W., & Landauer, T. K. 1998. The measurement of textual coherence with latent semantic analysis. *Discourse Processes*, 25(2-3), 285-307.
- Frambach, R. T., Prabhu, J., & Verhallen, T. M. M. 2003. The influence of business strategy on new product activity: The role of market orientation. *International Journal of Research in Marketing*, 20(4), 377-397.

- Groysberg, B. & Slind, M. 2012. Leadership Is a Conversation. *Harvard Business Review*, 90(6), 76-84.
- Gummesson, E. 2000. *Qualitative Methods in Management Research*. (Second edn ed.) Thousand Oaks, California: Sage Publications Inc.
- Györi, G. 2002. Semantic change and cognition. *Cognitive Linguistics*, 13(2), 123-166.
- Hartelius, E. J. & Browning, L. D. 2008. The application of rhetorical theory in managerial research - A literature review. *Management Communication Quarterly*, 22(1), 13-39.
- Higgins, J. M. & Mcallaster, C. 2004. If you want strategic change - don't forget to change your cultural artifacts. *Journal of Change Management*, 4(1), 63-73.
- Homburg, C. & Pflesser, C. 2000. A multiple-layer model of market-oriented organizational culture: Measurement issues and performance outcomes. *Journal of Marketing*, 3(4), 449-462.
- Jacobs, C. D. & Heracleous, L. 2005. Answers for questions to come: reflective dialogue as an enabler of strategic innovation. *Journal of Organizational Change Management*, 18(4), 338-352.
- Johnson, G. 1992. Managing Strategic Change - Strategy, Culture and Action. *Long Range Planning*, 25(1), 28-36.
- Kellermanns, F. W., Walter, J., Floyd, S. W., Lechner, C., & Shaw, J. C. 2011. To agree or not to agree? A meta-analytical review of strategic consensus and organizational performance. *Journal of Business Research*, 64(2), 126-133.
- Kim, W. C. & Mauborgne, R. 2005. *Blue Ocean Strategy - How to Create Uncontested Market Space and Make the Competition Irrelevant*. Boston: Harvard Business Review Press.
- Landauer, T. K. & Dumais, S. T. 1997. A solution to Plato's problem: The latent semantic analysis theory of acquisition, induction, and representation of knowledge. *Psychological Review*, 104(2), 211-240.
- Landrum, N. E. 2008. A narrative analysis revealing strategic intent and posture. *Qualitative Research in Organizations and Management: An International Journal*, 3(2), 127-145.
- Mankins, M. C. & Steele, R. 2005. Turning great strategy into great performance. *Harvard Business Review*, 83(7), 64-72.
- Markides, C. 1997. Strategic innovation. *Sloan Management Review*, 38(3), 9-23.
- Marshak, R. J. 2002. Changing the language of change: how new contexts and concepts are challenging the ways we think and talk about organizational change. *Strategic Change*, 11(5), 279-286.
- Melnyk, S. A., Hanson, J. D., & Calantone, R. J. 2010. Hitting the Target ... but Missing the Point: Resolving the Paradox of Strategic Transition. *Long Range Planning*, 43(4), 555-574.
- Mintzberg, H. & Quinn, J. B. 1992. *The Strategy Process - Concepts and Context*. Englewood Cliffs: Prentice Hall International, Inc.
- Normann, R. (2001). *Reframing business - When the Map Changes the Landscape*. John Wiley & Sons Ltd, Chichester.

- Olander Roesse, M. & Olsson, A. 2012. Challenging the strategy paradigm within the paper packaging industry. *International Journal of Business Science and Applied Management*, 7(2), 1-12.
- Olander-Roesse, M. 2008. Towards a new business paradigm - A study of the paper packaging industry. Lund: Department of Design Sciences, Division of Packaging Logistics, Lund University, Media-Tryck.
- Olander-Roesse, M. & Olsson, A. 2007. Adapting to changes in the supply chain – Challenges to re-defining the supply chain for increased customer orientation and product innovation within the paper packaging industry. In R. Lamming (Ed.), 16th annual IPSERA conference.
- Patton, M. Q. 2002. *Qualitative Research & Evaluation Methods*. (3rd ed.) Thousand Oaks: Sage Publications, Inc.
- Pfeffer, J. & Sutton, R. I. 1999. Knowing "what" to do is not enough: Turning knowledge into action (Reprinted from *The knowing-doing gap: How smart companies turn knowledge into action*). *California Management Review*, 42(1), 83-108.
- Porter, M. E. 1985. *Competitive advantage, Creating and Sustaining Superior performance*. New York: The Free Press.
- Porter, M. E. 1996. What Is Strategy? *Harvard Business Review*, 74(6), 61-78.
- Prasad, A. & Mir, R. 2002. Digging Deep for Meaning: A Critical Hermeneutic Analysis of CEO letters to Shareholders in the Oil Industry. *The Journal of Business Communication*, 39(1), 92-116.
- Quinn, J. B. 1978. Strategic Change - Logical Incrementalism. *Sloan Management Review*, 20(1), 7-21.
- Quinn, J. J. 1996. The role of 'good conversation' in strategic control. *Journal of Management Studies*, 33(3), 381-394.
- Rogers, P. S., Gunesequera, M., & Yang, M. L. 2011. Language Options for Managing - Dana Corporation's Philosophy and Policy Document. *Journal of Business Communication*, 48(3), 256-299.
- Rutherford, B. A. 2005. Genre Analysis of Corporate Annual Report Narratives: A Corpus Linguistics-Based Approach. *Journal of Business Communication*, 42(4), 349-378.
- Simons, R. 1995. *Levers of control: how managers use innovative control systems to drive strategic renewal*. Boston: Harvard Business School Press.
- Wallemacq, A. & Jacques, J.-M. 2009. Exploring Semantic Fields. *International Studies of Management & Organization*, 39(1), 9-33.
- Whittington, R. 1997. *What is strategy and does it matter*. London: International Thomson Business Press.
- Yang, X. & Helander, M. G. 2007. Semantic Analysis of Verbal Communication in Cross-functional Design Team: A Study of Driver Seat Design in an Automotive Company. In 2007 IEEE International Conference on Industrial Engineering and Engineering Management pp. 1292-1296.

Paper V

TOWARDS IMPROVED REPORTING OF CASE STUDY RESEARCH

– An evaluation of articles in top tier logistics and management journals

Malin Olander-Roese*

Helena Lindh**

Sandra Silgård Casell***

*) Division of Packaging Logistics, Lund University, SE-221 00, Lund, Sweden, E-mail: malin.olander@plog.lth.se, Tel: +46 46 222 97 01; Fax: + 46 46 222 60 80

**) Division of Packaging Logistics, Lund University, SE-221 00, Lund, Sweden, E-mail: helena.lindh@plog.lth.se, Tel: +46 46 222 39 43; Fax: + 46 46 222 60 80

***) Division of Packaging Logistics, Lund University, SE-221 00, Lund, Sweden, E-mail: sandra.casell@plog.lth.se, Tel: +46 46 222 98 35; Fax: + 46 46 222 60 80

ABSTRACT

Purpose of this paper The purpose is threefold; to present a framework for assessing reporting of case study based research, to evaluate recently published case study based research within the area of logistics and supply chain management and finally to identify and suggest areas for improvement in the reporting of case study based research within the same field.

Design/methodology/approach The paper is based on an initial review of case study research in methodology literature, resulting in four main and 16 sub-criteria for evaluating reporting of case study based research. Thereafter four top tier logistics and supply chain management journals and one management journal were selected in which 51 case study based articles, between 2006 and 2008, were identified and evaluated.

Findings The study shows a great variation in the fulfillment of the suggested criteria for reporting of case study based research, identifies weaknesses and concludes with suggestions for improvements.

Research limitations/implications The study is limited to an evaluation of case studies published in four logistics and supply chain management journals and one management journal, covering a time span of three years.

Practical implications The findings have implications for reporting of case study based research in the logistics academic community as well as to practitioners and other target groups. It can further be used in teaching of PhD courses.

What is original/value of paper This paper contributes with areas for improvement in reporting of case study based logistics and supply chain management research.

Keywords: Case study research, Literature review, Logistics, Methodology, Supply chain management

1. INTRODUCTION

Logistics and supply chain management are applied academic research disciplines calling for research of high relevance for practice, without compromising the contribution to theory. Historically and still today the methodologies used in the logistics discipline are predominately quantitative, focused on survey-based research, simulation and mathematical modeling (Golicic et al., 2005; Craighead et al., 2007). In spite of the dominance of quantitative research, qualitative research strategies such as case studies in logistics and supply chain research, and action research, constitute a growing portion of published research (Craighead et al., 2007). This in turn has led to a discussion on the advantages and disadvantages of quantitative versus qualitative research in the discipline as well as an increased focus on the underlying paradigms guiding the research (Golicic et al., 2005; Näslund, 2008). More recently several authors have tried to bridge these differences by directing the methodological discussion to the need for multiple approaches and to the more central question of research *relevance* and *rigor* (Dubois and Araujo, 2007; Näslund, 2008)

The issues of relevance and rigor should be equally important in all research, irrespective of approach. However, qualitative research, and not in the least case-based research, have been the object of criticism. In general, case studies have been and still are often criticized for lack of rigor meaning that the researcher has not followed a systematic procedure or has unintentionally concluded something the research did not actually reveal, allowing for vague and interpretive evidence and conclusions that cannot be generalized (see for example Yin 2003; Voss et al. 2002; Mentzer and Flint, 1997). In addition, case studies are criticized for not measuring up to traditional means of evaluation. In terms of validity, case research is said to be strong in realism, internal validity and parts of construct validity (using multiple sources of evidence), but suffers from a lack of statistical conclusion validity, statistical generalizability and replication (Mentzer and Flint, 1997).

However, evaluating qualitative research such as case studies in the same way as quantitative has long been questioned. Lincoln and Guba (1985) suggest terms such as “credibility”, “transferability”, “dependability” and “confirmability” as opposed to the more conventional terms “internal” and “external validity”, “reliability” and “objectivity”. Arbnor and Bjerke (1994) suggest “credibility” and “truthfulness” as two important measures to validate that qualitative research findings are of practical and scientific value. Näslund (2008) claims that rigor should not only be based on traditional validity and reliability, but rather the entire research approach and the process from design to analysis and subsequently the reporting thereof. This is in line with Marshall and Rossman (2006) who with reference to Lincoln and Guba’s criteria point out the need for qualitative researchers to explicate the design and methods in detail so the reader can judge whether they are adequate and make sense. The importance of the actual reporting of case research is also highlighted by Eisenhardt and Graebner (2007). This is in line with Runeson and Höst (2009) who underline that an empirical study cannot be distinguished from its reporting as it is the main source for judging the quality of the study. However, as pointed out in a recent study by Seuring (2008), a frequent observation of case study research is that the description of the research process is poor, if existing at all.

Hence, not only should the process of case study research be designed and conducted in a structured way, but the reporting of the design and process in itself is of great importance to ensure and evaluate quality, relevance and rigor.

Several authors, from different research paradigms, have contributed to improving design, execution and reporting of case. However, there appears to be agreement that more can be done to improve the reporting of case studies (Benbasat et al., 1987; Eisenhardt, 1989; Yin, 2003; Dube and Pare, 2003; Seuring, 2008) in order to improve its quality and rigor. This is particularly true for the area of logistics and supply chain management research (Mentzer and Flint, 1997) where case studies are still relatively rare but growing in numbers (Gammelgaard, 2003; Halldorsson and Aastrup, 2003; Frankel et al., 2005).

The purpose of this article is threefold; to present a framework for assessing reporting of case study based research, to evaluate recently published case study based research within the area of logistics and supply chain management and finally to identify and suggest areas for improvement in the reporting of case study based research within the same field. The research questions guiding this study were:

- i. What are important criteria for case study design, conduct and reporting described in the literature?
- ii. What is the current state of published case study based research within logistics and supply chain management?
- iii. What are common weaknesses and areas for improvement in the reporting of case study based research within logistics and supply chain management?

The paper is structured in the following way, firstly the methodology is described followed by the theoretical framework summarizing the initial literature review. In the following section, the findings from the initial literature review are summarized in a suggested framework for assessing the reporting of case study based research. This is followed by a presentation and discussion of the findings from the evaluation of the identified case study based articles derived from the selected journals. Finally, the conclusions are presented and areas for improving the reporting of case study based logistics and supply chain management research highlighted.

2. METHODOLOGY

Based on the purpose and research questions, the research approach was structured in seven steps (see Table 2.1). To answer the first research question and allow for developing a framework to be used in the analysis, an initial review of qualitative and case study research methodology literature was performed. The selection of literature was based on authors who propose criteria for design, conduct and reporting of case studies and authors that are frequently referred to in published case study based articles in the field of logistics and supply chain management. The selection of literature and authors reviewed are summarized in Section 3 together with the resulting summary and draft list of important criteria for the design and execution of case study based research (see Table 3.1). In compiling the draft list consideration has also been taken to the assumption put forward (Dube and Pare, 2003; Runeson and Höst, 2009) that the design and execution of a case study in itself should be represented in the reporting to allow for an evaluation of rigor. Hence, criteria for reporting should rest on criteria similar to the ones summarized in the draft list.

To answer the second research question ‘What is the current state of published case study based research within logistics and supply chain management’ the unit of analysis for the study was defined to case study based articles reported and published in top tier journals. Hence, as a second step four top tier journals in logistics and supply chain management and

one management journal were identified and selected. The selection of logistics and supply chain management journals was based on the ranking presented by Kovács et al. (2008, p. 322). The top three journals were selected: International Journal of Physical Distribution and Logistics Management (IJPDLM), International Journal of Logistics Management (IJLM) and Journal of Business Logistics (JBL), as was the sixth, Journal of Supply Chain Management (JSCM) to ensure supply chain focused research. To allow for a further evaluation of the reporting of case study based research in these journals, and to answer the third research question; The Academy of Management Journal (AMJ) was selected based on its position as a major journal in management and for its efforts “...in spotlighting alternative methods that take advantage of rich empirical data” (Eisenhardt and Graebner, 2007, p. 25). The choice of a journal outside the direct field of study is also supported by Stuart et al (2002) who argue that advances in other disciplines can provide an important input.

Table 2.1. An overview of the research process

Research activities
1. An initial literature review of qualitative and case study research methodology resulting in a draft list of criteria important for the design, execution and reporting of such research (see Table 3.1).
2. Selection of five top tier journals and identification of 51 case study based articles in the three most recent years (2006-2008).
3. A first reading and evaluation of five of the 51 identified case-based articles based on the draft list of criteria.
4. A development and operationalization of the draft list of criteria into a framework of four main criteria with, in total, 16 sub-criteria stated as questions (see Table 3.2) for enabling an evaluation and comparison on how these criteria were fulfilled in the 51 identified articles.
5. Reading, cross-reading and comparing the 51 articles based on the framework.
6. Joint analysis and discussion of aggregated findings.
7. A summary and presentation of the evaluation of the 51 articles highlighting the degree of fulfillment of respective sub-criteria and suggesting areas for improvement (see Table 4.1)

From these five journals, case study based articles were drawn covering the three most recent years: 2006-2008 (see Table 2.2). In total 528 articles were searched resulting in 51 identified case study based articles. The search was based on an on-line, or when not possible, a manual scan of the 528 articles, identifying articles explicitly stating the use of a case study approach through searching for the words “case study” and “case studies” in the title, abstract, methodology section and/or keywords. The identified articles were all subjected to final manual control in order to ensure that selected articles with the appearing words “case study” or “case studies” referred to the research approach used in the article at hand. Articles referring to the use of a “hypothetical” case study or a case study limited to a simulation or modeling were omitted. A list of the reviewed articles is provided in Appendix 1.

Table 2.2 Number of identified case study based articles in ratio to the total number of articles, in selected journals

	AMJ	IJPDLM	JBL	JSCM	IJLM	Total
2006	2/65	8/45	1/17	4/20	6/20	21/167
2007	4/85	10/44	1/16	0/18	3/21	18/184
2008	2/57	2/41	2/25	1/35	5/19	12/177
Total	8/207	20/130	4/58	5/73	14/60	51/528
% case studies	4%	15%	7%	7%	23%	10%

As a third step, one sample article was selected from each journal, five in total, for a trial application of the draft list of criteria developed in the first step. The articles were read by each author and compared with the draft list. This was followed by the fourth step, a further development, refinement and operationalization of criteria considered to be important for the reporting of case study based research, with consideration taken to the prerequisites for design and execution. This step resulted in a suggested framework of four main criteria: Purpose/Research Question, Case Setting, Data Collection and Analysis. Each criterion was in turn broken down into four questions, resulting in a total of 16 sub-criteria, framed as questions to enable an evaluation and comparison of how these criteria were fulfilled in the 51 identified articles (see Table 4.1). As a measurement of whether a sub-criteria was fulfilled or not, a positive answer resulted in one point, a negative answer in no point given. Hence an article fulfilling all the 16 sub-criteria may receive 16 points.

As a next and fifth step all 51 articles were read and evaluated based on the 16 sub-criteria. The articles were cross-read between authors to ensure an agreement on the fulfilment or non-fulfilment of the criteria in order to increase the reliability and rigor of the assessment process. Thereafter a joint analysis and discussion of the findings on an aggregated level led to a final step of summarizing and presenting the evaluation of the 51 articles highlighting the degree of fulfilment of respective sub-criteria and identifying areas for improvement (see Table 4.1).

3. THEORETICAL FRAMEWORK

The applicability and characteristics of a case study are described and elaborated on by many well-known authors including Yin and Eisenhardt who are often cited in the field of logistics and supply chain management. Eisenhardt (1989) advocates the use of case studies when an existing theory is insufficient or inadequate, or when a research area is novel. She defines the case study as a research strategy that focuses on understanding the dynamics present in single settings, typically combining different data collection methods. Yin (2003) argues that the case study approach is preferable when the research focuses on a contemporary phenomenon in its real-life context, with an unclear boundary between the context and phenomenon. It is suitable when the researcher has limited control and is asking *how* and *why* questions. Gummesson (2000) claim that case studies can vary in character and are suitable for deriving general as well as specific conclusions. Irrespective of definition, Ellram (1996, p. 95) state that “...without proper research design, execution and data analysis, case study research will produce poor results”. However not only the design and execution of the case study has been identified as important areas, in order to increase rigor, but the reporting the same (Benbasat et al., 1987; Dube and Pare, 2003; Runeson and Höst, 2009).

3.1. Reporting of case based research

The most frequent mode of conveying the activities and results from a completed study and especially a case study is in written reports, typically in the format of an article. The content of the article is dependent on the authors' perception of what ought to be included in the reporting of the case study, as well as adhering to the guidelines of the publication. The steps in the case study design are aimed to go hand in hand with the actual execution and final reporting of the same. The research design in case studies are described by Yin (2003, p. 20)

as “... a logical plan for getting from here to there, where here may be defined as the initial set of questions to be answered, and there is some set of conclusions...”

A critical aspect of empirical research, such as case studies, is presenting it (Marshall and Rossman, 2006; Eisenhardt and Graebner, 2007). The importance of the reporting of case study based research is also emphasized by Runeson and Höst (2009, p. 158) since “*The reader of a case study report /.../ must judge the quality of the study based on the written material*”. Dube and Pare (2003) calls for better reporting of methods and procedures. Their study of case study research showed that 40 percent did not describe their data collection process and only nine percent provided a “*clear and detailed*” description on how the data were analyzed. Dube and Pare (2003, p. 626) concludes by stating that “*a minimum of information regarding key design issues must be provided if one wants to be able to distinguish scientific descriptive cases from journalistic work*” and proposing researchers to adhere to their suggestions for improvement. A draft list (se Table 3.1) gradually evolved from summarizing important aspects and steps in designing and conducting case studies imposed by different authors.

Table 3.1: Draft list of important criteria, in designing and conducting case study based research, interpreted and presented in the five stage research process model by Stuart et al (2002) (¹Eisenhardt(1989), ²Ellram (1996), ³Stuart et al. (2002), ⁴Voss et al. (2002), ⁵Dube and Pare (2003), ⁶Yin (2003), ⁷Marshall and Rossman (2006), ⁸Näslund (2008), ⁹Runeson and Höst (2009))

Phase	Criteria
Defining the research question	Define research question [1, 2, 3, 4, 5, 6, 7, 8, 9] grounded in theory [9] and practice [7, 8] Propositions [3, 6] Overall approach and rationale [7], what are to be studied and presumed relationships [4, 9] Justify the use of case study/ies on the basis of the research question [2, 3, 4, 5, 6, 8]
Research instruments development	Unit of analysis [5, 6, 8, 9] Case study protocol [1, 2, 3, 4, 6, 9] Rationale for single/ multiple case selection [2, 4, 5] Type of case (longitudinal, retrospective or current) [4] Site, sample or case selection [1, 2, 3, 4, 5, 7, 9] Logic linking the data to propositions [6] A priori specification of constructs [1, 4], criteria for interpreting the findings [6] Researcher role [3, 8] Pilot case to refine the design [5, 6]
Data Gathering	Data collection methods and procedures [2, 3, 4, 5, 7, 8, 9] Multiple methods for collecting data enabling triangulation [methodological triangulation] [1, 2, 3, 4, 5, 6, 8, 9] Time-period for the data collection [5, 8] Recoding of data [9], taking field notes [1, 5, 7], building a case study database [2, 6] Multiple sources of evidence enabling triangulation [data triangulation] [2, 4, 5, 6, 8, 9] Qualitative and quantitative data [1, 5, 8] Type of data (on-going and/or retrospective) [8] Draft review [2, 6, 8, 9] Multiple investigators enabling triangulation [investigator triangulation] [1, 3, 4, 6, 8] Access [8] and trust [3, 8]
Data analysis	Analysis and analysis procedures [1, 2, 3, 4, 5, 7, 8, 9] - Within-case analysis [4, 1] case description, write up or narrative [4, 6] - Organize and reduce data in categories [4, 5, 6], data coding processes [2, 5] open, axial and selective coding [2, 4] - Use pattern matching, explanation building, logical models, or time-series analysis [6] - Search for cross-case patterns [1, 3, 4, 6] Cyclical Approach [8] where data analysis overlap the data collection [1] Establish chain of evidence [2, 5, 6, 8, 9] Perspectives to the same data set [theory triangulation] [6], consider rival theories or alternative explanations [5, 6, 9] Shaping hypotheses [1, 4] Comparison with conflicting and similar literature [1, 4, 5] Team analysis [8]
Dissemination	Implications for practice [8, 9] Conclusions in correspondence to research questions [9] contributing to both science and practice [7, 8] Trustworthiness [7, 9] Anticipate and address common criticisms of case-based research [3, 9]

In order to answer the second research question on the current state of published case study based research within logistics and supply chain management, a further development and operationalization of the draft list presented in Table 3.1 was done to enable an evaluation. Hence after the first trial-reading of five of the 51 articles, four main criteria were formulated and further broken down into sub-criteria.

3.1.1. Research Question/Purpose

Defining the research question is considered to be one of the most vital steps in a research process (Yin, 2003; Dube and Pare, 2003; Näslund, 2008). The importance of also explicitly stating the intentions is emphasized by Stuart et al. (2002) as well as the type of research question, which is decisive as to whether or not case study research is an appropriate approach (Benbasat et al., 1987; Ellram, 1996; Handfield and Melynk, 1998; Stuart et al., 2002; Voss et al., 2002; Yin, 2003; Dube and Pare, 2003; Näslund, 2008). Furthermore, the importance of a solid foundation in theory is emphasized by, among others, Eisenhardt and Graebner (2007, p. 26) , *“Sound empirical research begins with strong grounding in related literature, identifies a research gap, and proposes research questions that address the gap.”* As logistics and supply chain management are applied academic research fields, the importance of the practical relevance of the research is also highlighted (Näslund, 2008).

Hence, a clearly defined and stated purpose and/or research question, based on theoretical as well as practical problems appropriate for case research is the first suggested criterion.

3.1.2. Case Setting

Dube and Pare (2003) and Näslund (2008) elaborate on the importance of providing a detailed description of the case context, encompassing aspects such as where the research was conducted, time period for data collection, the nature of the collected data and if sufficient access was gained, which other authors refer to as an overall approach, rationale and instrument development (see Table 3.1). Before going onto the actual data collection stage, a few tasks are identified. The first is the unit of analysis (i.e. what the case ‘is’) (Yin, 2003; Dube and Pare, 2003; Näslund, 2008; Runeson and Höst, 2009). Although the importance of the unit of analysis is emphasized, the article reviews conducted by Dube and Pare (2003) and Benbasat et al., (1987) consistently reveal that the unit of analysis is not clearly stated in many of the published articles. According to Benbasat et al. (1987, p. 372) the research questions *“often indicate an appropriate unit of analysis.”* Yin (2003, p. 24) accentuates the connection to the research questions by stating: *“If your questions do not lead to the favouring of one unit of analysis over another, your questions are probably either too vague or too numerous...”* In a case study, one or several units of analysis (often referred to as holistic versus embedded design) can be investigated (Yin, 2003).

The identification of where to execution the research (i.e. the selection and number of cases) is another task. Case study research can be based on either a single case or multiple cases (Eisenhardt, 1989; Yin, 2003). According to Gummesson (2003, p. 488), *“Anything from one case to several, even hundreds, can be justified depending on the research purpose and the research question.”* Furthermore, the importance of including information about and reflections on the role of the researcher/s in the case description is stressed by Näslund (2008) and mentioned by Stuart et al. (2002, p. 426): *“We know that observation is shaped by the observer’s prior experiences and background, including prior scientific training, culture, and*

system of beliefs.” This is also echoed by Marshall and Rossman (2006) who point to the particular role of the researcher in qualitative research.

Hence, a clear and detailed description of the unit of analysis, how the case/s were selected, complemented with a motivation of why the research is based on a single or multiple cases and a discussion or description covering the role of the researcher is the second suggested criterion referred to in this study as the case setting.

3.1.3. Data Collection

Data collection is another important step in the design and execution but also in the reporting of case study based research. Näslund (2008) argues the significance of providing information on how the data was collected. The use of multiple methods for data collection is promoted by several authors as well as incorporating both qualitative and quantitative data (Eisenhardt, 1989; Dube and Pare, 2003; Näslund, 2008). Triangulation is, according to Ellram (1996, p. 100), *“The use of different techniques to study the same phenomenon, provides validity within the case study method.”* Furthermore, the findings are considered more profound if based on various sources of information (Benbasat et al., 1987; Yin, 2003). Yin (2003) describes four kinds of triangulation: data, investigator, theory, and methodological. The importance of triangulation is also emphasized by Eisenhardt (1989, p. 538): *“...triangulation made possible by multiple data collection methods provides stronger substantiation of constructs and hypotheses.”* Another important aspect in the reporting of case study results is the time period for the data collection (Dube and Pare, 2003; Näslund, 2008). Although its importance is emphasised: *“The case period defines the frame of reference under which phenomena are investigated”* they found, in their review, that very few state it (Dube and Pare, 2003, p. 611).

Hence, an explicit and clear description of the data collection encompassing information on how the data were collected and when and if triangulation was used is the third suggested criterion.

3.1.4. Analysis

The analysis leading to the conclusions is, according to Stuart et al. (2002, p. 427), *“to a great extent, a challenge of making sense from chaos.”* Eisenhardt (1989, p. 539) agrees and states that it is *“both the most difficult and the least codified part of the process.”* However, she continues that since little effort is invested in discussing and describing the analysis *“a huge chasm often separates data from conclusions.”* A lack of a clearly described analysis procedure is according to Dube and Pare (2003, p. 616) a serious shortcoming since when provided it gives the reader a better understanding of the findings and an ability to judge *“whether or not the results are the fruit of a systematic and rigorous process.”* Although there is no standard procedure, within-case analysis, cross-case analysis and different forms of coding occur in the literature. Within-case analysis is commonly constituted of a description (also called a write-up) for each case, whereas in cross-case analysis the researcher tries to look *“beyond initial impressions”* and in different ways search for similarities and differences between the cases or groups of cases (Eisenhardt, 1989, p. 541). Voss et al. (2002, p. 212) describe the coding process as an effort to *“reduce data into categories.”* The importance of providing the reader with a clear chain of evidence that makes it possible to follow the path from the initial research questions to the conclusions and back in the reporting from case-based research is highlighted by a number of authors (Yin, 2003; Dube and Pare, 2003; Näslund, 2008). In line with the research purpose and the criteria for submission to the journals studied here, the conclusions need to be of theoretical as well as practical relevance.

Eisenhardt and Grabner (2007) suggest the use of narratives interspersed with quotations from key interviewees and other important and supporting evidence, preferably also intertwined with the theory to demonstrate – with their theory building efforts – the close connection between empirical data and emergent theory. Reporting and presenting multiple cases may be more challenging not least of all due to spatial constraints which is why the use of extensive tables and other visual devices that summarize the related case evidence are suggested to show the depth and detail of empirical grounding. Näslund (2008, p. 113) in turn argues that, “From a rigor point of view, other aspects that can increase the rigor of the analysis are to include quotes and in-depth comparison with both conflicting and supporting literature.”

Hence, a clearly defined and described analysis procedure with conclusions based on the purpose and/or research question contributing to both theory as well as practice is the fourth suggested criterion.

3.2. A framework for assessing case study based research

In summary, based on the literature review and further development of the draft list (Table 3.1) the four main criteria have been complemented with 16 sub-criteria, stated as questions, to enable an evaluation as shown in Table 3.2.

Table 3.2 A framework with, in total, 16 sub-criteria – stated as questions – enabling evaluation of reported case study based research

Research question / Purpose	Case Setting	Data Collection	Analysis
<ul style="list-style-type: none"> — Is there a RQ/Purpose? — Is the case study strategy motivated based on the RQ/Purpose? — Is the RQ/Purpose grounded in theory? — Is the RQ/Purpose grounded in practice? 	<ul style="list-style-type: none"> — Is the unit of analysis and/or focus described? — Is the use of single/multiple cases stated and motivated? — Is the selection of case/-s motivated? — Does the researcher/-s describe his/her/their role? 	<ul style="list-style-type: none"> — Are the data collection method/s stated? — Are the data collection methods and procedures described? — Is the time period for the data collection stated? — Is any form of triangulation used and described? 	<ul style="list-style-type: none"> — Is the analysis procedure stated? — Are the analysis procedure and steps described? — Do the analysis/findings lead to conclusions expressing theoretical as well as practical relevance? — Do the analysis/findings lead to expressed/stated conclusions in accordance with RQ/Purpose?

4. FINDINGS AND DISCUSSION

Having answered the first research question in the theoretical framework, this section is devoted to the questions on the current state of published case study based research within logistics and supply chain management and the findings thereof showing the strengths, common weaknesses and areas for improvement in the reporting of case study based research within the same field. The summarized findings are presented in Table 4.1. For the complete list of reviewed articles see Appendix 1.

Table 4.1 A summary of the evaluation showing the degree of fulfillment of respective sub-criteria for each of the 51 articles, highlighting weaknesses and areas for improvement. (The numbers are referring to the article numbers in Appendix 1).

RQ/Purpose: 88%	1. Is there a RQ/Purpose?	2. Is the case study strategy motivated based on the RQ/Purpose?	3. Is the RQ/Purpose grounded in theory?	4. Is the RQ/Purpose is grounded in practice?
	Articles that fulfilled this criteria: 1-33, 35-51 AMJ: 88% IIPDLM: 100% JBL: 100% JSCM: 100% IJLM: 100% Total: 98%	Articles that fulfilled this criteria: 1, 3, 6-14, 18, 19, 21-24, 26, 27, 29-32, 34-41, 45, 46, 48-51 AMJ: 100% IIPDLM: 75% JBL: 100% JSCM: 60% IJLM: 50% Total: 73%	Articles that fulfilled this criteria: 1-10, 12-14, 16-18, 20-45, 47-51 AMJ: 100% IIPDLM: 95% JBL: 50% JSCM: 100% IJLM: 93% Total: 92%	Articles that fulfilled this criteria: 2-20, 22-34, 36-38, 40, 42-48, 50, 51 AMJ: 38% IIPDLM: 100% JBL: 100% JSCM: 100% IJLM: 93% Total: 88%
Case Setting: 55%	5. Is the unit of analysis and/or focus clearly stated?	6. Is the use of single or multiple cases motivated?	7. Are the principles for case selection described/motivated?	8. Does the researcher/s describe his/hers/their role?
	Articles that fulfilled this criteria: 1, 2, 4-9, 13, 14, 17-19, 21, 22, 24, 25, 32, 34-44, 46, 48, 51 AMJ: 88% IIPDLM: 70% JBL: 75% JSCM: 60% IJLM: 43% Total: 65%	Articles that fulfilled this criteria: 1, 4, 7-12, 16, 19, 21, 22, 24-27, 30, 32-41, 44, 46, 48, 49, 51 AMJ: 100% IIPDLM: 55% JBL: 100% JSCM: 60% IJLM: 43% Total: 63%	Articles that fulfilled this criteria: 1, 3, 4, 6-8, 11, 12, 14, 21-24, 26-29, 31, 33, 35-41, 43, 46, 47, 49, 51 AMJ: 75% IIPDLM: 55% JBL: 75% JSCM: 80% IJLM: 50% Total: 61%	Articles that fulfilled this criteria: 1, 10, 12, 18, 19, 21, 27, 31, 33, 34, 38, 40, 44, 48, 51 AMJ: 63% IIPDLM: 20% JBL: 25% JSCM: 0% IJLM: 36% Total: 29%
Data Collection: 63%	9. Are the data collection method/s stated?	10. Is the data collection methods and procedures well described?	11. Is the time period for the data collection stated?	12. Is any form of triangulation used and described?
	Articles that fulfilled this criteria: 1, 2, 4, 5, 7-49 AMJ: 100% IIPDLM: 90% JBL: 100% JSCM: 100% IJLM: 86% Total: 92%	Articles that fulfilled this criteria: 1, 2, 4, 5, 7, 8, 10-12, 14, 16, 17, 20-30, 32-47, 49-51 AMJ: 100% IIPDLM: 80% JBL: 75% JSCM: 100% IJLM: 71% Total: 82%	Articles that fulfilled this criteria: 10, 12, 14, 16, 18, 19, 21, 22, 26-28, 31, 32, 34, 35, 47-49 AMJ: 63% IIPDLM: 35% JBL: 25% JSCM: 0% IJLM: 36% Total: 35%	Articles that fulfilled this criteria: 1, 8-10, 18, 19, 21-24, 26, 27, 30, 35-40, 42, 43, 46, 48 AMJ: 60% IIPDLM: 50% JBL: 80% JSCM: 40% IJLM: 20% Total: 44%
Analysis: 74%	13. Is the analysis procedure stated?	14. Are the analysis procedure and steps described?	15. Do the analysis/findings lead to conclusions expressing theoretical as well as practical relevance?	16. Do the analysis/findings lead to expressed/stated conclusions in accordance with RQ/Purpose?
	Articles that fulfilled this criteria: 1, 3, 4, 7, 8, 10, 11, 14, 16, 19-23, 25, 26, 28, 30, 31, 33-42, 44, 45, 47, 49 AMJ: 100% IIPDLM: 45% JBL: 75% JSCM: 100% IJLM: 57% Total: 65%	Articles that fulfilled this criteria: 1, 4, 7, 10, 11, 14, 15, 17, 20-22, 26, 31, 34-36, 38-42, 44, 45, 49-51 AMJ: 100% IIPDLM: 40% JBL: 25% JSCM: 80% IJLM: 43% Total: 51%	Articles that fulfilled this criteria: 1-10, 12-15, 17-19, 21-32, 34-36, 38-44, 47, 48, 50, 51 AMJ: 90% IIPDLM: 90% JBL: 80% JSCM: 80% IJLM: 80% Total: 84%	Articles that fulfilled this criteria: 2-19, 21-33, 35-51 AMJ: 75% IIPDLM: 100% JBL: 100% JSCM: 80% IJLM: 100% Total: 94%

4.1. The current state of published case study based research

As shown in Table 2.2, the number and percentage of published case study based articles in the respective journal range from 4% to 23% hence showing great variation in the share of case-based research publicized. However, the focus here has not been to go further into the analysis of the amount of or differences between journals with regard to published case-based research, even if the numbers per se may give room for interesting interpretations. The task has been to evaluate and compare the articles identified for the purpose of improving the reporting of case study based research in logistics and supply chain research. Nevertheless, it is evident that there are differences between the journals in terms of the most common research approaches in the articles accepted and published, as well as in the guidelines and requirements for contribution and submission.

The evaluation of articles based on the suggested framework, summarized in Table 4.1, show a great variation in fulfillment of the different criteria. On an aggregated level comparing the four main criteria in summary for all the evaluated articles, RQ/Purpose showed the highest degree of fulfillment (88%) followed by Analysis (74%). Case setting (55%) and Data Collection (63%) had a lower degree of fulfillment particularly with regard to sub-criteria 8, 9 and 10. However there is a great variation between the sub-criteria within Data Collection (9 and 10 vs. 11 and 12) and within Analysis (13 and 14 vs. 15 and 16) showing particular areas of improvement of articles published in logistics and supply chain journals also in comparison with articles published in management journal AMJ. It is of course noted that the AMJ, compared to the logistics and supply chain journals in this study, differ in theoretical research areas and target groups – however, the goal of improving the reporting of case study based research is hopefully shared across academic disciplines, which is why a comparison is valuable.

4.2. Strengths, weaknesses and areas for improvement

The strengths, weaknesses and areas for improvement are demonstrated through the degree of fulfillment of the respective sub-criteria – identified by article number (see Appendix 1) and summarized in degree of fulfillment in percent – on journal, sub- and main criteria level. The weaknesses and areas for improvement have been highlighted. None of the 51 articles studied attained the maximum value of 16, or 100% in itself. However, eight articles were given a total value of 14 or more (four in AMJ, three in IJPDLM and one in JSCM) and are referred to below as examples of best cases.

4.2.1. Strong areas

The first main criterion, *RQ/Purpose*, appears to be the easiest to fulfill, with regard to all sub-criteria with some variation. In comparison with the articles found in AMJ, purpose/research questions are in general more clearly stated in logistics and supply chain research articles as is the grounding in practice.

The two other sub-criteria that appear strong are particularly the statement of data collection methods used, number 9, (92%) and the expressed correlation between findings and the RQ/purpose, number 16 (94%). However these also leave some room for improvement.

4.2.2. Weaknesses and areas for improvement

In spite of *RQ/Purpose* being a strong area overall in the articles, the manner in which these are stated differs greatly. The motivation of the case study strategy based on the research question/purpose is clearly a weakness in the articles published in IJLM (50%) and JSCM

(60%) as is the grounding in theory in the articles found in JBL (50%). Going back to the literature review, several authors refer to Yin's claim that case study based research best answers questions such as *why* and *how* why it is suggested that these questions be considered and even integrated into the formulation of the research question/purpose to clarify the author's intention and understanding, as well as making it more understandable for the reader. What could be further improved, particularly in the supply/logistics articles, is the narrowing of the research questions as well as possibly the relation to other theoretical fields – particularly with regard to the fact that supply chain management is a multi-disciplinary area. To quote (Stuart et al., 2002, p. 423): *“Advances in other disciplines can provide a much improved starting point for defining the appropriate research question.”*

The criterion of *Case Setting* show areas of improvement overall, but particularly with regard the description of the *Role of the researcher*, number 8, with 29%, however lower for the articles in logistics/supply journals. The importance of the researcher in case study research is highlighted by Marshall and Rossman (2006, p. 72), who claim that: *“In qualitative studies, the researcher is the instrument. Her presence in the lives of the participants invited to be part of the study is fundamental to the methodology.”* One good example of the description of the researcher's role is found in Pålsson (2007, p. 156): *“The role of the author was mainly to document and observe the progress of the project and secondarily to participate in discussions and some project tasks.”*

Furthermore the *Unit of analysis*, number 5, appears to be a challenging aspect of case design. Even though not showing the lowest degree of fulfillment, the unit or rather focus of analysis, is described to varying extents and in a number of articles is it difficult to make out what it actually is (i.e. it is either not explicitly stated or is expressed vaguely). While referred to in many articles as a “company, function or department” – the unit of analysis in the analysis and conclusions appears to be the “process” instead. This is also apparent in the studies from Dube & Pare (2003) where only 8% of the examined articles clearly state the unit of analysis. Ogden (2006, p. 30), author of one of the articles in the study, devotes a figure and a paragraph to explicitly describing the impact of the unit of analysis on data collection: *“The unit of analysis has a direct impact on the type of information gathered and the sources used to gather the data,”* and adds, *“... for purposes of this research, the unit of analysis was a subsection of a firm's suppliers...”*

The use of single/multiple case studies, the selection of case studies and motivations thereof are areas for further improvements where a good example is found in Jarzabkowski (2008, p. 624-625): *“I selected cases of three types in order to reflect the parameters of the U.K. university sector outside the ancient universities... Three cases that were within a realistic travel distance for rich qualitative data collection were selected on the basis that they offered equally high-quality access and were well-ranked examples of their types within the U.K. ...”*

When it comes to the description of how and when and what data was collected, the criterion of *Data Collection* leaves room for improvement. The importance of well described data collection is supported by (Benbasat et al., 1987, p. 381): *“...a clear description of data sources and the way they contribute to the findings of the research is an important aspect of the reliability and validity of the finding.”* In the study, the accounts of these aspects vary greatly from articles that have a detailed and elaborate description (particularly in AMJ and JSCM). This is especially the case when it comes to stating as well as describing and motivating the data collection methods used (JBL, IJLM, IJPDLM). Benbasat et al.(1987, p. 381) see a similar pattern in their study: *“Sometimes the researchers mentioned that they used documents and observations, but they did not provide any more detail about them.”* Not

describing the data collection methods undermines the credibility of the research, according to Dubé and Paré (2003, p. 612).

However, the two sub-criteria which leave most room for improvement are *Time Period*, number 11, and *Triangulation*, number 12. Stating the time period and actual year of the study is an area for further improvement as it is an important aspect to orientate the reader. Jarzabkowski (2008, p. 625) and Faems et al. (2008, p. 1057-1058) state and describe the data collection methods used and also the order of it. Jarzabkowski (2008, p. 625) provides in addition a thorough description of the period for data collection: “*Qualitative data were collected for a seven-year period, six years of which (1992-97 inclusive) were retrospective and one year of which (1998) was ‘real time’*”. As for triangulation, many authors on case study methodology argue that this is an important criterion (Eisenhardt, 1989; Mentzer and Flint, 1997; Yin, 2003; Dube and Pare, 2003). Many articles refer to different data collection methods but do not motivate why or how these have contributed in the analysis.

The criteria of *Analysis* show variation between the description of the actual procedure and steps and the resulting findings and conclusions. The sub-criteria leaving most room for improvement is number 14 – describing the procedure and steps of the analysis also including an illustration of the findings. The articles in logistics/supply journals show a low degree of fulfillment with the exception of JSCM articles and again the articles published in AMJ. However it should be noted the AMJ allows for longer articles than all of the other journals. The importance and challenges of analyzing data generated from case study research are acknowledged by Benbasat et al. (1987), Eisenhardt (1989), Stuart et al. (2002) and Yin (2003). Dubé and Paré (2003) also mention the importance of elucidating the reader as to how the analysis was conducted and its importance for the reader’s ability to judge whether the results spring from a systematic and rigorous process or not. Stating, referring to, and describing the methods and steps in the analysis articles in all logistics and supply chain journals leave room for improvement. Plowman et al. (2007, p. 523) give a good example in presenting the seven-step analysis procedure employed and describe each step in detail, as does Jarzabkowski (2008, p. 626): “*In this section, I explain the five analytic phases I undertook...*”

On the other hand a great majority of the articles in logistics and supply chain journals receive high values in presenting the conclusions of theoretical and practical relevance, and in accordance with the initial purpose/research question. As an academic reader, however, one is sometimes surprised on how the authors arrives at the conclusions presented as the description of the execution of the case study, and particular the analysis, is lacking.

5. CONCLUSIONS

The purpose of this article was threefold. Firstly to develop and present a framework for assessing reporting of case study based research. This framework was derived from the initial literature review and formulated in four main criteria with, in total, 16 sub-criteria stated as questions for enabling an evaluation and comparison of reported case study based research (see Table 3.2). The suggested framework could in the future also serve as a guide in the development of case study based reports and articles and is a further contribution to the existing literature and guidelines on case study research, with a particular emphasis on reporting the same. It can further be used in teaching of PhD courses. Additional improvements of the suggested framework will contribute to even more improved reporting of case study based research.

Secondly an evaluation of recently published case study based research within the area of logistics and supply chain management was conducted. The findings summarized in Table 4.1 show a great variation between the articles in the fulfillment of the suggested criteria for reporting of case study based research. They also indicate differences between journals which could be further explored with regard to specific journal focus and requirements.

Thirdly to identify and suggest areas for improvement in the reporting of case study based research within the area of logistics and supply chain management. In summary, as demonstrated in Table 4.1, there are in particular three main criteria and four sub-criteria which leave room for improvements:

- Case setting in general, and the *Researcher role* in particular
- Data collection with regard to the *Time period* and the use and motivation of *Triangulation*
- Analysis – *Description of procedure and steps for analysis*. This step should also include a presentation, and/or narrative of the findings.

In conclusion the findings presented here contribute to the further improvement of reporting of case study based research and hence its' relevance and rigor, particularly in the field of logistics and supply chain management. The findings show some particular areas which allow for improving the reporting of case study based research in the field. It should be noted that the analysis presented here is only based on the rigour of the *reported* research in accordance with the selected criteria, hence not the research itself. The research itself could have been conducted in a more rigorous way, although it is not reflected in the articles. This further proves the importance of the communication of the results since the reader only has the reported research as evidence and should be able to trace the conclusions of the study back to the initial research question or in the opposite direction. This is not only important for the academic reader but also for practitioners.

REFERENCES

- Arbnor, I. & Bjerke, B. (1994), *Företagsekonomisk metodlära*, 2:a upplaga edn, Studentlitteratur, Lund.
- Benbasat, I., Goldstein, D. K., & Mead, M. (1987), "The Case Research Strategy in Studies of Information Systems", *MIS Quarterly*, vol. 11, no. 3, pp. 369-387.
- Craighead, C. W., Hanna, J. B., & Gibson, B. J. (2007), "Research approaches in logistics Trends and alternative future directions", *International Journal of Logistics Management*, vol. 18, no. 1, pp. 22-41.
- Dube, L. & Pare, G. (2003), "Rigor in Information Systems Positivist Case Research: Current Practices, Trends, and Recommendations", *MIS Quarterly*, vol. 27, no. 4, pp. 597-635.
- Dubois, A. & Araujo, L. (2007), "Case research in purchasing and supply management: Opportunities and challenges", *Journal of Purchasing and Supply Management*, vol. 13, no. 3, pp. 170-181.
- Eisenhardt, K. M. (1989), "Building Theories from Case Study Research", *Academy of Management Review*, vol. 14, no. 4, pp. 532-550.
- Eisenhardt, K. M. & Graebner, M. E. (2007), "Theory building from cases: Opportunities and challenges", *Academy of Management Journal*, vol. 50, no. 1, pp. 25-32.

- Ellram, L. M. (1996), "The use of case study method in logistics research", *Journal of Business Logistics*, vol. 17, no. 2, pp. 93-138.
- Faems, D., Janssens, M., Madhok, A., & Van, L. B. (2008), "Toward an integrative perspective in alliance governance: Connecting contract design, trust dynamics, and contract application", *Academy of Management Journal*, vol. 51, no. 6, p. 1053.
- Frankel, R., Naslund, D., & Bolumole, Y. (2005), "The "White space" of logistics research: A look at the role of methods usage", *Journal of Business Logistics*, vol. 26, no. 2, pp. 185-209.
- Gammelgaard, B. (2003), "Case Studies in Logistics Research", J. Juga, ed., University of Oulu, Finland, Proceedings of the 15th Annual Conference for Nordic Researchers in Logistics, Oulu, Finland, pp. 556-570.
- Golicic, S. L., Davis, D. F., & McCarthy, T. M. (2005), "A Balanced Approach to Research in Supply Chain Management," in *Research Methodologies in Supply Chain Management*, H. Kotzab et al., eds., Physica-Verlag HD, pp. 16-29.
- Gummesson, E. (2000), *Qualitative Methods in Management Research*, 2 edn, Sage Publications Inc, Thousand Oaks, California.
- Gummesson, E. (2003), "All research is interpretive!", *Journal of Business and Industrial Marketing*, vol. 18, no. 6/7, pp. 482-492.
- Halldorsson, A. & Aastrup, J. (2003), "Quality criteria for qualitative inquiries in logistics", *European Journal of Operational Research*, vol. 144, no. 2, pp. 321-332.
- Handfield, R. & Melynk, S. (1998), "The scientific theory-building process: A primer using the case of TQM", *Journal of Operations Management*, vol. 16, no. 4, pp. 321-339.
- Jarzabkowski, P. (2008), "Shaping strategy as a structuration process", *Academy of Management Journal*, vol. 51, no. 4, p. 621.
- Kovács, G., Spens, K. M., & Vellenga, D. B. (2008), "Academic publishing in the Nordic countries - a survey of logistics and supply chain related journal rankings", *International Journal of Logistics: Research and Applications*, vol. 11, no. 4, pp. 313-329.
- Lincoln, Y. S. & Guba, E. G. (1985), *Naturalistic inquiry* Sage Publications, Beverly Hills, California.
- Marshall, C. & Rossman, G. B. (2006), *Designing Qualitative Research*, 4 edn, Sage Publication Inc.
- Mentzer, J. T. & Flint, D. J. (1997), "Validity in Logistics Research", *Journal of Business Logistics*, vol. 18, no. 1, pp. 199-216.
- Näslund, D. (2008), "Action Research: Rigorous research approach or Scandinavian excuse for consulting," in *Northern Lights in Logistics & Supply Chain Management*, J. Stentoft Arlbörn et al., eds., Copenhagen Business School Press, pp. 99-116.
- Ogden, J. A. (2006), "Supply Base Reduction: An Empirical Study of Critical Success Factors", *Journal of Supply Chain Management*, vol. 42, no. 4, pp. 29-39.
- Pålsson, H. (2007), "Participant observation in logistics research", *International Journal of Physical Distribution & Logistics Management*, vol. 37, no. 2, pp. 148-163.
- Plowman, D. A., Baker, L. T., Beck, T. E., Kulkarni, M., & Et, a. (2007), "Radical Change Accidentally: The Emergence and Amplification of Small Change", *Academy of Management Journal*, vol. 50, no. 3, pp. 515-543.
- Runeson, P. & Höst, M. (2009), "Guidelines for conducting and reporting case study research in software engineering", *Empirical Software Engineering*, vol. 14, no. 2, pp. 131-164.

- Seuring, S. A. (2008), "Assessing the rigor of case study research in supply chain management", *Supply Chain Management*, vol. 13, no. 2, pp. 128-137.
- Stuart, I., McCutcheon, D., Handfield, R., McLachlin, R., & Samson, D. (2002), "Effective case research in operations management: A process perspective", *Journal of Operations Management*, vol. 20, no. 5, pp. 419-433.
- Voss, C., Tsiriktsis, N., & Frohlich, M. (2002), "Case research in operations management", *International Journal of Operations & Production Management*, vol. 22, no. 2, pp. 195-219.
- Yin, R. K. (2003), *Case study research: design and methods*, 3rd edn, Sage Publications, Thousand Oaks.

Appendix 1: Papers reviewed in this paper

1. Anand, N., Gardner, H. K., & Morris, T. (2007), "Knowledge-based Innovation: Emergence and embedding of new practice areas in management consulting firms", *Academy of Management Journal*, vol. 50, no. 2, pp. 406-428.
2. Ballou, R. H. (2006), "Revenue estimation for logistics customer service offerings", *International Journal of Logistics Management*, vol. 17, no. 1, pp. 21-37.
3. Bartlett, P. A., Julien, D. M., & Baines, T. S. (2007), "Improving supply chain performance through improved visibility", *International Journal of Logistics Management*, vol. 18, no. 2, pp. 294-313.
4. Bhadury, J., Khurana, S., Peng, H. S., & Zong, H. (2006), "Optimization Modeling in Acquisitions: A Case Study from the Motor Carrier Industry", *Journal of Supply Chain Management*, vol. 42, no. 4, pp. 40-53.
5. Collin, J. & Lorenzin, D. (2006), "Plan for supply chain agility at Nokia", *International Journal of Physical Distribution & Logistics Management*, vol. 36, no. 6, pp. 418-430.
6. DeWitt, T., Giunipero, L. C., & Melton, H. L. (2006), "Clusters and supply chain management: the Amish experience", *International Journal of Physical Distribution & Logistics Management*, vol. 36, no. 4, pp. 289-308.
7. Ellram, L. M. (2006), "The Implementation of Target Costing in the United States: Theory Versus Practice", *Journal of Supply Chain Management*, vol. 42, no. 1, pp. 13-26.
8. Esper, T. L., Fugate, B. S., & vis-Sramek, B. (2007), "Logistics Learning Capability: Sustaining the competitive advantage gained through logistics leverage", *Journal of Business Logistics*, vol. 28, no. 2, p. 57-VI.
9. Fabbe-Costes, N., Jahre, M., & Rouquet, A. (2006), "Interacting standards: a basic element in logistics networks", *International Journal of Physical Distribution & Logistics Management*, vol. 36, no. 2, pp. 93-111.
10. Faems, D., Janssens, M., Madhok, A., & Van, L. B. (2008), "Toward an integrative perspective in alliance governance: Connecting contract design, trust dynamics, and contract application", *Academy of Management Journal*, vol. 51, no. 6, p. 1053.
11. Fawcett, S. E., Magnan, G. M., & McCarter, M. W. (2008), "A three-stage implementation model for supply chain collaboration", *Journal of Business Logistics*, vol. 29, no. 1, p. 93-VIII.
12. Fernie, J. & Grant, D. B. (2008), "On-shelf availability: the case of a UK grocery retailer", *International Journal of Logistics Management*, vol. 19, no. 3, pp. 293-308.
13. Flygansvaer, B. M., Gadde, L., & Haugland, S. A. (2008), "Coordinated action in reverse distribution systems", *International Journal of Physical Distribution & Logistics Management*, vol. 38, no. 1, pp. 5-20.
14. Forslund, H. & Jonsson, P. (2007), "Dyadic integration of the performance management process: A delivery service case study", *International Journal of Physical Distribution & Logistics Management*, vol. 37, no. 7, pp. 546-567.
15. Gaudenzi, B. & Borghesi, A. (2006), "Managing risks in the supply chain using the AHP method", *International Journal of Logistics Management*, vol. 17, no. 1, pp. 114-136.
16. Guerreiro, R., Bio, S. r. R., & Merschmann, E. V., V (2008), "Cost-to-serve measurement and customer profitability analysis", *International Journal of Logistics Management*, vol. 19, no. 3, pp. 389-407.
17. Hanafi, J., Kara, S., & Kaebnick, H. (2008), "Reverse logistics strategies for end-of-life products", *International Journal of Logistics Management*, vol. 19, no. 3, pp. 367-388.

18. Hines, P., Francis, M., & Bailey, K. (2006), "Quality-based pricing: a catalyst for collaboration and sustainable change in the agrifood industry?", *International Journal of Logistics Management*, vol. 17, no. 2, pp. 240-259.
19. Holmqvist, M. & Stefansson, G. (2006), "'Smart goods' and mobile RFID: a case with innovation from Volvo", *Journal of Business Logistics*, vol. 27, no. 2, pp. 251-21X.
20. Hurkens, K., van, d., V, & Wynstra, F. (2006), "Total Cost of Ownership in the Services Sector: A Case Study", *Journal of Supply Chain Management*, vol. 42, no. 1, pp. 27-37.
21. Jarzabkowski, P. (2008), "Shaping strategy as a structuration process", *Academy of Management Journal*, vol. 51, no. 4, p. 621.
22. Johansson, O. & Hellström, D. (2007), "The effect of asset visibility on managing returnable transport items", *International Journal of Physical Distribution & Logistics Management*, vol. 37, no. 10, pp. 799-815.
23. Johnson, P. F. & Leenders, M. R. (2008), "Building a corporate supply function", *Journal of Supply Chain Management*, vol. 44, no. 3, pp. 39-52.
24. Jones, S. R. & Zsidisin, G. A. (2008), "Performance implications of product life cycle extension: The case of the A-10 aircraft", *Journal of Business Logistics*, vol. 29, no. 2, p. 189-VIII.
25. Jonsson, P., Kjellsdotter, L., & Rudberg, M. (2007), "Applying advanced planning systems for supply chain planning: three case studies", *International Journal of Physical Distribution & Logistics Management*, vol. 37, no. 10, pp. 816-834.
26. Kärkkäinen, M., Laukkanen, S., Sarpola, S., & Kempainen, K. (2007), "Roles of interfirm information systems in supply chain management", *International Journal of Physical Distribution & Logistics Management*, vol. 37, no. 4, p. 264.
27. Khan, O., Christopher, M., & Burnes, B. (2008), "The impact of product design on supply chain risk: a case study", *International Journal of Physical Distribution & Logistics Management*, vol. 38, no. 5, pp. 412-432.
28. Knoppen, D. & Christiaanse, E. (2007), "Interorganizational adaptation in supply chains: a behavioral perspective", *International Journal of Logistics Management*, vol. 18, no. 2, pp. 217-237.
29. Koh, S. C. L., Saad, S., & Arunachalam, S. (2006), "Competing in the 21st century supply chain through supply chain management and enterprise resource planning integration", *International Journal of Physical Distribution & Logistics Management*, vol. 36, no. 6, pp. 455-465.
30. Lau, K. H. & Zhang, J. (2006), "Drivers and obstacles of outsourcing practices in China", *International Journal of Physical Distribution & Logistics Management*, vol. 36, no. 10, pp. 776-792.
31. Lim Roland, Y. G., Baines, T., Tjahjono, B., & Chandraprakaikul, W. (2006), "Integrated strategic supply chain positioning for SMEs: an empirical study", *International Journal of Logistics Management*, vol. 17, no. 2, pp. 260-276.
32. Lorentz, H., Wong, C. Y., & Hilmola, O. P. (2007), "Emerging distribution systems in central and Eastern Europe: Implications from two case studies", *International Journal of Physical Distribution & Logistics Management*, vol. 37, no. 8, pp. 670-697.
33. Masson, R., Iosif, L., MacKerron, G., & Fernie, J. (2007), "Managing complexity in agile global fashion industry supply chains", *International Journal of Logistics Management*, vol. 18, no. 2, pp. 238-254.
34. Nag, R., Corley, K. G., & Gioia, D. A. (2007), "The intersection of organizational identity, knowledge, and practice: Attempting strategic change via knowledge grafting", *Academy of Management Journal*, vol. 50, no. 4, pp. 821-847.

35. O'Mahony, S. & Ferraro, F. (2007), "The emergence of governance in an open source community", *Academy of Management Journal*, vol. 50, no. 5, pp. 1079-1106.
36. Ogden, J. A. (2006), "Supply Base Reduction: An Empirical Study of Critical Success Factors", *Journal of Supply Chain Management*, vol. 42, no. 4, pp. 29-39.
37. Ogden, J. A. & Carter, P. L. (2008), "The supply base reduction process: an empirical investigation", *International Journal of Logistics Management*, vol. 19, no. 1, pp. 5-28.
38. Pålsson, H. (2007), "Participant observation in logistics research", *International Journal of Physical Distribution & Logistics Management*, vol. 37, no. 2, pp. 148-163.
39. Pekkarinen, S. & Ulkuniemi, P. (2008), "Modularity in developing business services by platform approach", *International Journal of Logistics Management*, vol. 19, no. 1, pp. 84-103.
40. Plowman, D. A., Baker, L. T., Beck, T. E., Kulkarni, M., & Et, a. (2007), "Radical Change Accidentally: The Emergence and Amplification of Small Change", *Academy of Management Journal*, vol. 50, no. 3, pp. 515-543.
41. Pratt, M. G., Rockmann, K. W., & Kaufmann, J. B. (2006), "Constructing Professional Identity: The role of work and identity learning cycles in the customization of identity among medical residents", *Academy of Management Journal*, vol. 49, no. 2, pp. 235-262.
42. Smart, A. & Dudas, A. (2007), "Developing a decision-making framework for implementing purchasing synergy: a case study", *International Journal of Physical Distribution & Logistics Management*, vol. 37, no. 1, pp. 64-89.
43. Stefansson, G. (2006), "Collaborative logistics management and the role of third-party service providers", *International Journal of Physical Distribution & Logistics Management*, vol. 36, no. 2, pp. 76-92.
44. Taylor, D. H. (2006), "Demand management in agri-food supply chains", *International Journal of Logistics Management*, vol. 17, no. 2, pp. 163-186.
45. Varila, M., Seppänen, M., & Suomala, P. (2007), "Detailed cost modelling: a case study in warehouse logistics", *International Journal of Physical Distribution & Logistics Management*, vol. 37, no. 3, p. 184.
46. Vigtil, A. (2007), "Information exchange in vendor managed inventory", *International Journal of Physical Distribution & Logistics Management*, vol. 37, no. 2, pp. 131-147.
47. Wang, L. & Kess, P. (2006), "Partnering motives and partner selection", *International Journal of Physical Distribution & Logistics Management*, vol. 36, no. 6, pp. 466-478.
48. Wong, C. Y. & Johansen, J. (2006), "Making JIT retail a success: the coordination journey", *International Journal of Physical Distribution & Logistics Management*, vol. 36, no. 2, pp. 112-126.
49. Zilber, T. B. (2006), "The work of the symbolic in institutional processes: Translations of rational myths in Israeli high tech", *Academy of Management Journal*, vol. 49, no. 2, pp. 281-303.
50. Zokaie, A. K. & Simons, D. W. (2006), "Value chain analysis in consumer focus improvement", *International Journal of Logistics Management*, vol. 17, no. 2, pp. 141-162.
51. Zokaie, K. & Hines, P. (2007), "Achieving consumer focus in supply chains", *International Journal of Physical Distribution & Logistics Management*, vol. 37, no. 3, p. 223.

Appendices

Appendix A: List of Interviewees

BILLERUD

2010	A	President and CEO
	B	Senior Vice President Corporate Human Resources
	C	Technical Director
	D	Business Area Director Packaging & Speciality Paper
	E	Business Area Director Packaging Boards
	F	Production Director
	G	CEO and project manager service concept/business
	H	Business Analyst, strategic project
	I	Development Engineer (Plant A)
2004	J	Member of the Board of Directors
	K	President and CEO
	L	Senior Vice President Marketing Director Paper
	M	Senior Vice President Technical Director and Mill Manager (Plant A)
	N	Product Area Manager and Manager Segment I
	O	Manager Product Technology (Plant A), member Segment I
	P	Product Development Engineer (Plant A), member Segment I
	Q	Technical Customer Support (Plant B), member Segment I
	R	R&D Manager (Plant A)
	S	R&D Manager (Plant B)
	T	Production Manager (Plant B)
	U	Manager Product Development (Plant B), member segment III
	V	Technical Customer Support (Plant A), member Segment II
	X	CEO and Manager Sales, European subsidiary

BETA

- 2006 A Chairman of the Board of Directors, former CEO and President
- B President Marketing & Business Support
- C President R & D

Appendix B: Interview guide

Main themes

- Objectives, strategy and strategic decisions 2004 to 2010
- The market and customers
- Innovation, business and product development
- The external market and development
- Management and organisational issues

Introduction

- Personal background
- Current position and history in the company
- What were you busy with earlier today/this week?

Guiding questions

- How would you describe Billerud today?
- How would you describe Billerud's strategy?
- Can you describe the development within your position/responsibility over the last five years?
- Who are primary customers? (Has it changed, how, when). Markets?
- What is Billerud's primary offer? (Has it changed, how, when)
- What is/are main added values/competitive advantages?
- Why do (different) customers choose Billerud?
- Why do customers/customers' customers /others choose to cooperate with you?
- What are the objectives/experiences/results of collaboration initiatives?
- How does Billerud deliver its strategy – organisation/competence/partners/way to market (Has it changed, how, when)
- Which is the most encompassing change/issues/development over the last five years?
- What/which decisions have been tough/integral/critical? Consequences, actions?
- What are the crucial drivers behind the strategy, external, internal?

- What projects/initiatives would be good examples of the desired direction (what are not good examples)?
- How far can Billerud go?
- What are the experiences/challenges/enablers of combining process efficiency and customer focused development?
- How do you combine process efficiency and innovation?
- What signifies your work with innovation?
- What does innovation mean/encompass (products, services, business etc)?
- What is a packaging innovation (paper quality, services etc)?
- Who (in the value chain) drives packaging innovation?
- Who/What are key drivers for product/business development?
- How do you work with the development of new products, services? (processes, actors)
- How and with whom do you work together? At what stage in the development phase? (customers)
- How do you identify new opportunities?
- What have been /are important levers for implementation?
- How do you measure, follow up?
- What are central 'systems of control', performance measures (overall, innovation etc)?
- HR development? Incentive systems?
- Internal versus external communication?
- What does Billerud's brand stand for today? Development?
- Describe the development and revision of the strategy
- Describe the development of the organisational structure
- Describe the development of the view of the supply/value chain
- Describe the development of the business concept
- What makes you wake up at night?
- What do you look forward to?

Division of Packaging Logistics, Lund University

Doctoral dissertations and Licentiate theses

- Hahn K, 1991, A study of the compressive behaviour of corrugated board panels. Licentiate thesis.
- Renman M, 1994, A mechanical characterization of creased zones of corrugated board. Licentiate thesis.
- Borglin J, 1995, Development of a decision support system for the selection process of corrugated packaging. Licentiate thesis.
- Patel P, 1996, Biaxial failure of corrugated board. Licentiate thesis.
- Aquilon M, 1997, Cultural factors in logistics management. Licentiate thesis.
- Henriksson L, 1998, Packaging requirements in the Swedish retail trade. Licentiate thesis.
- Johnsson, M, 1998, Packaging logistics – a value added approach. PhD dissertation.
- Patel P, 1999, Nonlinear creep model of paper and corrugated board materials. PhD dissertation.
- Persson E, 1999, Creating a competitive advantage in the corrugated board industry. Licentiate thesis.
- Berglund A, 1999, Incorporating environmental aspects in transport purchasing. Licentiate thesis.
- Bergström P, 2000, A strategic view on relationship in the grocery supply chain – the case of a low complex product. Licentiate thesis.
- Saghir M, 2002, Packaging logistics evaluation in the Swedish retail supply chain. Licentiate thesis.
- Olsson A, 2002, The integration of customer needs in e-business systems. Licentiate thesis.
- Wallin C, 2003, Contract packaging and its implications for the supply chain – a case study of a contract packager. Licentiate thesis.
- Nilsson F, 2003, A complex adaptive systems approach on logistics – implications from adopting a complexity perspective. Licentiate thesis.
- Abukhader SM, 2003, The environmental implications of electronic commerce – the assessment approach problem. Licentiate thesis.
- Orremo F, 2003, E-business in an established customer vendor relationship. Licentiate thesis.
- Hellström D, 2004, Exploring the potential of using radio frequency identification technology in retail supply chains. Licentiate thesis.
- Bramklev C, 2004, Concurrent development of product and packaging – towards an integrated development procedure. Licentiate thesis.
- Saghir M, 2004, A platform for packaging logistics development: a systems approach. PhD dissertation.

- Klevås J, 2005, On opportunities of integrated packaging, logistics and product development – experiences from a case study at IKEA. Licentiate thesis.
- Gustafsson K, 2005, The process of creating a nation-wide pool system for transport packaging – from vision to decision. Licentiate thesis.
- Abukhader SM, 2005, Towards horizontal environmental assessment for supply chain and logistics management. PhD dissertation.
- Nilsson F, 2005, Adaptive logistics – using complexity theory to facilitate increased effectiveness. PhD dissertation.
- Olsson A, 2006, The change from feature focus to customer focus in packaging development. PhD dissertation.
- Johansson O, 2006, Towards a model for managing uncertainty in logistics operations – a simulation modelling perspective. Licentiate thesis.
- Dominic C, 2006, Packaging Networks - a framework for integrating packaging suppliers in the Demand Chain. Licentiate thesis.
- Beckeman M, 2006, The rise of the Swedish food sector after WW II. What, why, how and who? Licentiate thesis.
- Svanberg J, 2006, A constructive approach to the interaction between risk and logistics. PhD dissertation.
- Pålsson H, 2006, Interorganizational collaboration in the context of introducing new technology. Licentiate thesis.
- Hellström D, 2007, On interactions between Packaging and Logistics – Exploring implications of technological developments. PhD dissertation.
- Lareke A, 2007, Tyrannical consumers – initiate value creation in the food value chain. Licentiate thesis.
- Bramklev C, 2007, Towards Integrated Product and Package Development. PhD dissertation.
- Viström M, 2008, Aspects of the impact of Technology Integration on Agility and Supply Chain Management – the Potential of Digital Packaging Printing. PhD dissertation.
- Björn, U, 2008, Integrating Packaging and Logistics in Industrial Development. Licentiate thesis.
- Olander, M, 2008, Towards a new business paradigm – A study of the paper packaging industry. Licentiate thesis.
- Johansson O. 2009, On the value of intelligent packaging – a packaging logistics perspectives. PhD dissertation.
- Pålsson H. 2009, Logistics value of using tracking data from uniquely labelled goods. PhD dissertation.
- Lindh H. 2009, Traceability in food supply chains – Beyond food safety. Licentiate thesis.
- Ringsberg H. 2011, Traceability in food supply chains - Exploring governmental authority and industrial effects. Licentiate thesis.
- Dominic C. 2011, Packaging Logistics Performance. PhD dissertation.

Beckeman M. 2011, The Potential for Innovation in the Swedish Food Sector. PhD dissertation.

Silgård Casell S.2011, Support for the industrial packaging development process. Buyer and supplier perspectives. Licentiate thesis.

Grönvall K. 2011, Exploring influences on information sharing in supply chains – A scenario planning study. Licentiate thesis.

Sohrabpour V. 2012, Towards satisfying supply chain needs through packaging design and development. Licentiate thesis.

Abbasi M. 2012, Themes and challenges in developing sustainable supply chains. Towards a complexity perspective. Licentiate thesis.

Ringsberg H. 2013, Food traceability in regulated fresh food supply chains with an emphasis on the Swedish fishing industry. Ph.D. dissertation.

