NTNU – Trondheim
Norwegian University of
Science and Technology

Balancing Exploration and Exploitation in The Service Sector

Ambidexterity in a Norwegian Company with a Value Shop Configuration

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Submission date: June 2013
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Oppgavens (foreløpige) tittel **Balancing innovation and effectiveness in service organizations**

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Oppgavens (foreløpige) tittel **Balancing innovation and effectiveness in service organizations**	
Oppgavetekst/Problembeskrivelse The necessity for organizations to be innovative while at the same time being effective creates a paradox, according to organizational theory. The concept of ambidexterity is widely accepted among scholars as the method used to achieve, and balance, both innovation and effectiveness. We will study how innovation and effectiveness is balanced in the Norwegian digital service company Making Waves by creating and executing a case study. The case study will include interviews and observation, and it will be based on knowledge we have accumulated through a previously conducted literature review.	
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3. Masteroppgave

Oppstartsdato	Innleveringsfrist
15. jan 2013	**11. jun 2013**
Oppgavens (foreløpige) tittel	
Balancing innovation and effectiveness in service organizations	
Oppgavetekst/Problembeskrivelse The necessity for organizations to be innovative while at the same time being effective creates a paradox, according to organizational theory. The concept of ambidexterity is widely accepted among scholars as the method used to achieve, and balance, both innovation and effectiveness. We will study how innovation and effectiveness is balanced in the Norwegian digital service company Making Waves by creating and executing a case study. The case study will include interviews and observation, and it will be based on knowledge we have accumulated through a previously conducted literature review.	
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Original problem definition / Oppgavetekst

The necessity for organizations to be innovative while at the same time being effective creates a paradox, according to organizational theory. The concept of ambidexterity is widely accepted among scholars as the method used to achieve, and balance, both innovation and effectiveness.

We will study how innovation and effectiveness is balanced in the Norwegian digital service company Making Waves by creating and executing a case study. The case study will include interviews and observation, and it will be based on knowledge we have accumulated through a previously conducted literature review.

Abstract

The research question in this thesis is “How does Making Waves balance exploration and exploitation?” which is based on our desire to study a Norwegian service company with an innovative edge and long-term profitability. Our thesis is written within the field of innovation management.

The most central theories covered in this thesis are related to exploration, exploitation, and ambidexterity, which is the ability of organizations to balance exploration and exploitation. We have created a model of four different ways a company can approach ambidexterity: architectural, contextual, combinatorial, and management approaches.

We have employed a qualitative research strategy, and designed a single-case study of the Norwegian consultancy company Making Waves. We interviewed 18 employees, from top management to non-management, and used a method for analysis inspired by open coding and grounded theory. Our theoretical foundation is a literature review we conduced in the fall of 2012. Based on the theoretical foundation and the empirical data, we have created a set of propositions that we used to shed light on specific elements of our research question.

From the analysis of our empirical data, we created three main categories that we used in the discussion: Company culture, knowledge management, and strategic orientation. We presented empirical data within these three categories, and explained how Making Waves uses the four approaches to ambidexterity. We also established that Making Waves can be defined as a value shop, which enabled us to theorise about which other companies that might benefit from our results.

We have used the insight we gained from the discussion of our propositions to answer the research question. The overall answer to the question is that Making Waves balances exploration and exploitation by having managers that combine architectural and contextual approaches to ambidexterity. More specifically, we found that Making Waves achieves ambidexterity through customer projects, and that they rely more and more on architectural approaches as they are growing. The CEO of Making Waves is directly involved in the contextual approaches, which he affects through his leadership style. The management in Making Waves does not prefer exploitative projects to explorative projects, and they do not use the performance management aspect of contextual approaches. We also found that Making Waves do not use spatial separation as an architectural measure when being ambidextrous.

The most important implications of our research are that value shops seem to employ more architectural approaches to ambidexterity by default when they grow in terms of number of employees, that the CEOs of companies with flat structures strongly affect contextual approaches to ambidexterity, and that thorough knowledge management is essential for achieving ambidexterity in value shops. We also believe that a combined view on ambidexterity and management theory would benefit both fields.

Sammendrag

Forskningsspørsmålet i denne oppgaven er ”Hvordan balanserer Making Waves exploration og exploitation?”, som er basert på et ønske om å studere et lønnsomt og innovativt norsk selskap i tjenestesektoren. Oppgaven er skrevet innen feltet innovasjonsledelse.

De mest sentrale teoriene i denne oppgaven er knyttet til konseptene exploration, exploitation og konseptet ambidekstri, som er en bedrifts evne til å balansere exploration og exploitation. Vi har laget en modell med fire ulike tilnærminger en bedrift kan ha til ambidekstri: arkitektoniske, kontekstuelle, kombinatoriske, og ledelsesmessige tilnærminger.

Vi har jobbet etter en kvalitativ forskningsmetode, og har designet et single-case-studie av det norske konsulentselskapet Making Waves. Vi intervjuet 18 ansatte, fra toppledelsen til dem uten lederansvar, og brukte en analysemetode inspirert av åpen koding og grounded theory. Det teoretiske fundamentet har vi fra et litteraturstudie vi utførte høsten 2012. Vi lagde et sett med proposisjoner basert på litteraturstudiet og intervjuene, som vi brukte til å belyse ulike sider ved forskningsspørsmålet.

Vi lagde tre kategorier til diskusjonskapitlene, basert på analysen av intervjuene: Selskapskultur, kunnskapsledelse og strategisk orientering. Vi presenterte empiri innen disse kategoriene, og forklarte hvordan Making Waves bruker de fire tilnærmingene til ambidekstri. Vi har også fastslått at Making Waves kan kategoriseres som en value shop, som gjorde det mulig å anta hvilke andre selskaper som kan ha nytte av resultatene våre.

Vi har brukt det vi fant ut gjennom diskusjonen av proposisjonene til å besvare forskningsspørsmålet. Det overordnede svaret på forskningsspørsmålet er at Making Waves balanserer exploration og exploitation ved å ha ledere som kombinerer arkitektoniske og kontekstuelle tilnærminger til ambidekstri. Mer spesifikt fant vi ut at Making Waves oppnår ambidekstri gjennom kundeprosjekter, og at de bruker flere og flere arkitektoniske tilnærminger jo større de blir. Topplederen i Making Waves er direkte involvert i de kontekstuelle tilnærmingene, og påvirker dem med måten han leder på. Ledelsen i Making Waves foretrekker ikke exploitation-prosjekter foran exploration-prosjekter, og bruker ikke prestasjonsledelse som en del av de kontekstuelle tilnærmingene. Vi oppdaget også at Making Waves ikke bruker spatial separation som en arkitektonisk tilnærming til ambidekstri.

De viktigste implikasjonene av oppgaven vår er at value shops tilsynelatende automatisk bruker flere og flere arkitektoniske tilnærminger jo flere ansatte de har, at toppledere i selskaper med flat struktur påvirker de kontekstuelle tilnærmingene i stor grad, og at omfattende kunnskapsledelse er essensielt for å oppnå ambidekstri i value shop-bedrifter. Vi mener også at et samlet syn på ambidekstri og ledelsesteori vil gagne begge fagfeltene.

Preface

This master's thesis was written as part of our Master of Science degree in Industrial Economics and Technology Management at the Norwegian University of Science and Technology (NTNU) in Trondheim. The thesis is a single-case study of how the consultancy company Making Waves achieves ambidexterity, and it is based on a literature review we conducted in the fall of 2012.

We would like to express our sincere gratitude to our academic supervisor, postdoctoral researcher Ola Edvin Vie at the Department of Industrial Economics and Technology Management, for his enthusiastic involvement and frequent and thorough guidance. We would also like to thank Making Waves, and Hans Olav Hellem and Kim Krogstad specifically, for letting us spend many hours interviewing employees, for answering all our questions thoroughly, and for letting us eat their excellent lunches.

We have spent the last two years at the NTNU School of Entrepreneurship, where we have enjoyed the solidarity and support of our fellow students, which has been a unique learning experience. We would like to thank both our fellow students and the administration for making these last two years an unforgettable experience.

Trondheim, 10 June 2013

Helge L. Andersen Kari Clifford Tharald J. Giæver

Table of Contents

Part I

1 Introduction 2
1.1 Historical context 2
1.2 Theoretical context 3
1.2.1 Innovation 3
1.2.2 Innovation management 4
1.2.3 Exploration and exploitation 6
1.2.4 Ambidexterity 7
1.2.5 Summary of theoretical context 7
1.3 Problem statement 8
1.4 From the service sector to the value shop 9
1.4.1 The service sector 9
1.4.2 Narrowing the focus 9
1.4.3 Value configurations 10
1.4.4 The value shop 11
1.5 Making Waves 12
1.6 Purpose of thesis 12
1.7 Thesis structure 13

Part II

2 Exploration and exploitation 18
2.1 Different views on exploration and exploitation 18
2.2 Exploration 19
2.2.1 Being explorative 19
2.2.2 Results of exploration 20
2.3 Exploitation 21
2.3.1 Being exploitative 22
2.3.2 Results of exploitation 22
2.4 The coexistence of exploration and exploitation 23
2.4.1 Exploration and exploitation as a trade-off or a paradox 24
2.4.2 Paradoxes 24
2.4.3 The paradox of exploration and exploitation 25
2.4.4 Solving the paradox 25
2.5 Summary 26

3 Ambidexterity 27
3.1 Definitions 27
3.2 Ambidexterity and performance 27
3.2.1 The metaphor of evolution 28
3.2.2 Theoretical discourse on the benefits of ambidexterity 28
3.3 Achieving ambidexterity 30
3.3.1 Ambidexterity as a result of a strategy process 30
3.3.2 The roles responsible for ambidexterity 31
3.3.3 Achieving ambidexterity in value shops 34
3.4 Structuring the approaches to ambidexterity 37
3.4.1 External approaches 40

3.4.2 Internal approaches....42
3.5 The four internal approaches....44
3.5.1 Architectural approaches....44
3.5.2 Contextual approaches....48
3.5.3 Combinatorial approaches....52
3.5.4 Management approaches....56
3.6 The propositions....59
3.7 Summary....61

Part III

4 Methodology....64
4.1 Qualitative research strategy....64
4.1.1 The role of theory in research....64
4.1.2 Ontology....64
4.1.3 Epistemology....65
4.1.4 Summary of qualitative research strategy....65
4.2 Research design....65
4.2.1 The Plan....66
4.2.2 The Design....68
4.2.3 Preparation....69
4.2.4 Data collection....73
4.2.5 Analysis....74
4.2.6 Conclusions....77
4.3 Quality Criteria....77
4.4 Ethics and anonymity....79
4.5 Critique of methodology....80
4.6 Summary and reflections on methodology....84

5 Case Company....86
5.1 Overview and brief history....86
5.2 Offices....86
5.3 Business system and organizational system....87
5.4 Growth....89
5.5 Summary....90

6 Empirical data....91
6.1 Company culture....92
6.1.1 Vision and mission statement....92
6.1.2 Design thinking....94
6.1.3 Hierarchy....96
6.1.4 The Minister of Culture....98
6.1.5 Socialization....98
6.1.6 A culture of sharing....100
6.1.7 Leadership style....101
6.2 Knowledge management....103
6.2.1 Computer systems....104
6.2.2 Updating the computer systems....105
6.2.3 Knowledge sharing through people....106
6.2.4 Knowledge sharing through projects....109

6.2.5 Knowledge sharing through organizational structures 110
6.2.6 Acquiring new knowledge 113
6.3 Strategic orientation 115
6.3.1 Fun, fame, and fortune 115
6.3.2 Customer selection 117
6.3.3 Overselling 119
6.3.4 Competitor focus 121
6.3.5 Strategies for the future 122
6.4 Overview and summary of empirical findings 124

Part IV

7 Discussion 126
7.1 Recap of propositions 126
7.2 The value shop Making Waves 127
7.3 Company culture 129
7.3.1 Architectural approaches 129
7.3.2 Contextual approaches 133
7.3.3 Management approaches 136
7.3.4 Combinatorial approaches 140
7.4 Knowledge management 141
7.4.1 Architectural approaches 142
7.4.2 Contextual approaches 147
7.4.3 Management approaches 151
7.4.4 Combinatorial approaches 153
7.5 Strategic orientation 155
7.5.1 Architectural approaches 156
7.5.2 Contextual approaches 160
7.5.3 Management approaches 162
7.5.4 Combinatorial approaches 164
7.6 Summary of the discussion 165

8 Summary of propositions 168
8.1 Proposition 1a 168
8.1.1 Evaluation of proposition 169
8.1.2 Implications 169
8.2 Proposition 1b 170
8.2.1 Evaluation of proposition 170
8.2.2 Implications 171
8.3 Proposition 2 171
8.3.1 Evaluation of proposition 172
8.3.2 Implications 172
8.4 Proposition 3a 174
8.4.1 Evaluation of proposition 175
8.4.2 Implications 175
8.5 Proposition 3b 176
8.5.1 Evaluation of proposition 176
8.5.2 Implications 176
8.6 Proposition 4 177

8.6.1 Evaluation of proposition 178
8.6.2 Implications 178
8.7 Proposition 5a 179
8.7.1 Evaluation of proposition 179
8.8 Proposition 5b 179
8.8.1 Evaluation 180
8.8.2 Implications 180
8.9 Summary 181
9 Conclusion 182
9.1 Answering the research question 182
9.2 Theoretical implications 183
9.3 Topics for further research 184
9.4 Practical advice for Making Waves 185
10 References 186
11 Appendix 193
11.1 Appendix 1: Interview invitation 193
11.2 Appendix 2: Interview introduction 194
11.3 Appendix 3: Interview guide #1 195
11.4 Appendix 4: Interview guide #2 Top management 198
11.5 Appendix 5: Interview guide #3 201
11.6 Appendix 6: Informant specific questions 204

Table of figures

Figure 1.1 Value shop configuration. 11
Figure 1.2 Representation of approaches to ambidexterity. 14
Figure 1.3 Our propositions. 14
Figure 1.4 Categories from empirical data. 15
Figure 1.5 The framework for our discussion. 16
Figure 2.1 Slack and innovation 20
Figure 3.1 Strategy formation (Mintzberg and Waters, 1985). 31
Figure 3.2 Ambidextrous leadership (Probst et al., 2011). 33
Figure 3.3 Ambidextrous leadership in value shop organizations. 34
Figure 3.4 Organizational boundary spanning (Rosenkopf and Nerkar, 2001). 37
Figure 3.5 The levels of strategy (inspired by De Wit and Meyer, 2010) 39
Figure 3.6 Our focus. 39
Figure 3.7 External and internal approaches. 40
Figure 3.8: External approaches to ambidexterity 42
Figure 3.9 The four approaches to ambidexterity 43
Figure 3.10: Internal approaches to ambidexterity 44
Figure 3.11 Summary of architectural approaches to ambidexterity 48
Figure 3.12 Context and ambidexterity (Gibson and Birkinshaw, 2004). 49
Figure 3.13 Summary of contextual approaches to ambidexterity. 51
Figure 3.14 Combinatorial approaches. 53
Figure 3.15 Summary of the combinatorial approaches. 56
Figure 3.16 Model for ambidextrous leadership (Rosing et al., 2011, p. 966). 58
Figure 3.17 Summary of management approaches 59
Figure 4.1 Visualization of selection of informants. 72
Figure 4.2 Linking theory with empirical data 77
Figure 5.1 Making Waves' organizational chart. 88
Figure 5.2. The development of number of employees in Making Waves. 89
Figure 5.3 Making Waves' revenue and profit. 90
Figure 6.1 Design thinking, drawing made by informant. 94
Figure 6.2 The figure redrawn for easier reading. 95
Figure 7.1 Framework for discussion. 127
Figure 7.2 Company culture and propositions. 129
Figure 7.3 Management approaches and contextual approaches 139
Figure 7.4 Knowledge mangagement and the propositions. 142
Figure 7.5 Structural implications the engagement directors will have. 144
Figure 7.6 Strategic orientation and the propositions. 156
Figure 7.7 Metaphor of the approaches to ambidexterity (from subchapter 3.4.2). ..166
Figure 8.1 Overview of architectural approaches (from subchapter 3.5.1). 173
Figure 8.2 Management approaches to ambidexterity (from subchapter 3.5.4). 176
Figure 8.3 Management approaches and contextual approaches. 178

Table of tables

Table 2.1 Overview of key points related to exploration and exploitation. 23
Table 2.2 Synthesis of paradox, inspired by Poole and van de Ven (1989) 26
Table 3.1 Paradox of personal drivers. 50
Table 4.1 Quantitative and qualitative strategies Bryman (2008) 65
Table 4.2 The steps taken in the research.....66
Table 4.3 The principles used in the literature study. 67
Table 4.4 Overview of the informants. 71
Table 4.5 The observed meetings. 74
Table 4.6 The interviews.....75
Table 4.7 Quality criteria. 78
Table 4.8 Quality criteria and the measures we have taken to ensure authenticity...79
Table 4.9 Criticism, consequences, and comments for the planning phase.....81
Table 4.10 Criticism, consequences, and comments for the design phase.....81
Table 4.11 Criticism, consequences, and comments for the preparation phase 82
Table 4.12 Criticism, consequences, and comments for the data collection phase ..83
Table 4.13 Criticism, consequences, and comments for the analysis phase 83
Table 4.14 Evaluation of the phase of sharing the results. 84
Table 6.1 An overview of computer systems mentioned by the informants. 106
Table 7.1 Contextual approaches and company culture.....135
Table 7.2 Management approaches affecting contextual approaches. 139
Table 7.3 The paradox of personal drivers in Making Waves. 141
Table 7.4 Architectural approaches and knowledge. 145
Table 7.5 Contextual approaches and knowledge. 148
Table 7.6 Contextual approaches and knowledge. 150
Table 7.7 Emphasis on social context, and not performance management. 151
Table 7.8 The paradox of personal drivers. 155
Table 7.9 Architectural approaches regarding proposition 3a. 160
Table 7.10 Findings on proposition 3a. 162
Table 7.11 Support for proposition 3a.....165
Table 7.12 Summary of the paradox of personal drivers. 167
Table 8.1 Summary of proposition 1a. 168
Table 8.2 Contextual approaches to knowledge management. 170
Table 8.3 Architectural approaches and knowledge management. 172
Table 8.4 Findings on proposition 3a. 174
Table 8.5 The paradox of personal drivers in Making Waves. 179
Table 8.6 Examples of approaches for solving the paradox of personal drivers. 180

Part I

Introduction

1 Introduction

This introductory chapter will explain the historical and theoretical context of innovation, which is the backdrop for our problem statement. We will describe how our problem statement was developed, and clarify the term “value shop” that we use to classify our case company Making Waves. We will also provide a short presentation of Making Waves, and present the purpose of our thesis. The chapter will conclude with a description of the report structure, which will hopefully help the reader navigate through our thesis.

1.1 Historical context

History is replete with stories of great companies that eventually failed. RCA Corporation, Kodak, and Motorola, were all profitable trendsetters at some point in the 20th century, but are now either out of business or shadows of their former selves. All three companies had at some point been very innovative, but eventually failed to adapt to the changing business environment. Change in the business environment is often induced by technological advances, such as the shift from analogue to digital film, the rise of the Internet, and more distantly, the second industrial revolution.

The second industrial revolution was also known as the technological revolution, and it brought about mass production and the production line (Broadberry, 2010). The result was a global increase in productivity (Skorstad, 2002). Technological and scientific advances drove this development, but the creation of new organizational principles was equally important. Division of labour made economics of scale possible through mass production and by organizing people and machines (Hobsbawm and Wrigley, 1999). The practice of organizing work based on efficiency led to the rise of methods such as lean production and total quality management in the middle of the 20th century (Klev and Levin, 2009). Companies that employed these methods saw their production soar.

But history shows that a company’s efficiency has not been enough to secure its survival over time; the generation of new ideas and the capability of adapting to change is also essential (Christensen et al., 2007). Even Ford Motor Company, a pioneer in mass production, had to temporarily shut down their company in the 1920s due to low sales numbers, because Henry Ford had refused to make any major changes to the Model-T car since its launch in 1908 (Sorensen et al., 2006). This is epitomized by Ford’s famous quote: “Any customer can have a car painted any colour that he wants, so long as it is black” (Ford and Crowther, 1922, p.72).

Companies must be both efficient *and* able to generate new ideas to be successful. This is especially true in the current business environment, where the Internet has toppled trusted business models, and created new ones. Cloud computing, big data, artificial intelligence, and crowd-sourced financing methods are all new trends that we expect to have a large impact in the future.

In an ever-changing world, with more rapid technological shifts and increasingly complex organizations, the pressure to master both efficiency and the generation of new ideas has increased (Tushman and O'Reilly, 1996). In the context of organizational theory the act of being able to generate new ideas is called exploration, and being efficient is called exploitation. Exploration has to do with seeking new knowledge, and exploitation has to do with refining existing knowledge, and a company that is able to be both explorative and exploitative is called an ambidextrous company. The next subchapter will describe the theoretical context that ambidexterity has its origins from, starting with the broad topic of innovation and the subtopic innovation management.

1.2 Theoretical context

After placing ambidexterity in an historical context, we will now place it in a theoretical context. Our research is within the field of innovation, and innovation management, and in this subchapter we will describe how exploration, exploitation and ambidexterity are underlying themes of innovation management.

1.2.1 Innovation

Innovation is the primary renewal process in any organization. It means to create something new, implicating that this *new* concept is both smarter and more efficient than the existing concept (Godø, 2008). Innovation can be new additions to a product or service, or changes related to how a product or service is created and delivered (Bessant et al., 2005), and it is a critical factor for long-time survival and economic growth (Trott, 2008). Baumol (2002) defines innovation as “the recognition of opportunities for profitable change and the pursuit of those opportunities all the way through to their adoption in practice”. Christensen (1997) states that innovation refers to a change in technology, and provides a wide definition of technology which “extends beyond engineering and manufacturing to encompass a range of marketing, investment and managerial processes” (Christensen, 1997, p.xiii).

An important academic discussion related to innovation has been to what degree innovation is driven forth by people intentionally, or determined by an external factor such as the marketplace. Schumpeter (1934) viewed innovation as a desired development activated by an agent he termed “the entrepreneur”. The entrepreneur breaks the market equilibrium by seeking radical changes caused by new combinations of resources (Landström, 1999). Innovation is driven forth intentionally by a person, a manager or a company (Schumpeter, 1934). Kirzner (1999) opposes this view, and claims that the market is already in a state of imbalance because individuals don’t all have the same knowledge or information. The imperfections in the market create opportunities, and Kirzner (1999) describes the entrepreneur as one who searches for and identifies these imperfections and leverages them to create innovations (Landström, 1999). Kirzner sees innovation as something that stems from disequilibrium in the market. Even though Schumpeter and Kirzner disagree on where innovations come from, they both emphasize that an action of a person or organization is necessary to bring forth innovation.

Innovation can be divided into different categories, based on different criteria. It can be categorized by where the innovation takes place, as with process and product innovation (Marabelli et al., 2012). Process innovation is related to production and delivery processes of a good or service, and product innovation is related to the actual product/service that the customer buys, making it externally driven by customer demand and market needs (Marabelli et al., 2012). Christensen (1997) divides innovation into main two categories based the impact they have on the marketplace. He presents the terms “disruptive” and “sustaining” innovations, and explains that disruptive innovations create a new market, and eventually disrupts an existing one, and that sustaining innovations change existing markets (Christensen, 1997). Christensen’s concept of disruptive innovations has a lot in common with Schumpeter's view on innovation and his term “creative destruction” (Christensen, 1997, Godø, 2008). Tidd and Bessant (2011) and Godø (2008) make a distinction between innovations and inventions, by saying that inventions without a market is not an innovation. They also categorize innovation based on what is done in the organization, and present innovation as either radical or incremental. Incremental innovations have to do with “doing what we do better” and radical innovations have to do with “doing something different” (Tidd and Bessant, 2011). We have chosen to use Tidd and Bessant’s (2011) terms and definitions in our thesis.

Innovation researchers, such as the ones mentioned above, agree that innovation relates to changes in products, services or process with the intent of creating greater value for customers, which in turn can be transformed into greater value for a company. There also seems to be consensus that these changes have to be driven forth by someone, such as an individual, a group of individuals or an organization. Organizational change is driven forth by management, which means that efficient innovation management is essential for any company striving to achieve innovation (Bessant et al., 2005). In the next subchapter, we will present the concept of innovation management.

1.2.2 Innovation management

Our thesis belongs within a subtopic of innovation, namely the topic of innovation management. We will in this subchapter describe the innovation process, and the difficulties of managing it. Then we will present the activities of exploration and exploitation as activities that can lead to innovation, if managed properly.

Few would negate the importance of innovation, but many have questioned if the enormously complex process of innovation is something an organization can actually manage (Tidd and Bessant, 2011). There have been made several attempts at creating a comprehensible model of the innovation process, but it is a difficult task. Trott (2008) claims that the innovation process is so complex that most attempts of trying to simplify it into a model have only led to misunderstandings. One usually has to combine two or more models to present a complete overview. Tidd (2001) and Adams et al. (2006) claim that the search for one fixed way to manage innovations is a lost cause. In spite of their scepticism, they propose important tools for understanding the complexity of innovation management.

Specific characteristics that are important aspects of innovation management are according to Tidd (2001), the sources of innovation, technological and market opportunity, and organization. Adams et al. (2006) claim that inputs, strategy, organization, culture, portfolio, project management, commercialization and knowledge management are important factors of innovation management. Knowledge management plays a vital role in our thesis, and we will therefore provide a definition. We choose to rely on Alvesson and Kärreman (2001)'s definition of knowledge management as the practice of managing people and information as well as the practice of facilitating knowledge creation.

There does not exist a well-defined model of the innovation process that scholars agree on, but several suggestions for how a company can innovate have been presented in the last decade. Open innovation is a recent concept in the innovation management theory, where the idea is that companies should use external ideas as well as internal ideas when looking for ways to advance their technology (Chesbrough, 2003). Chesbrough's (2003) central argument for why companies should use open innovation is that companies can not afford to rely entirely on their own exploration and exploitation in a world of widely distributed knowledge. By innovating with other partners, both risk and reward are shared, and this results in blurred boundaries between the company and its environment (Chesbrough, 2003). Business model innovation is also a new buzzword, made famous by Osterwalder and Pigneur (2010) and their business model canvas. A business model is a description of the value a company offers to its customers, presented in terms of the company architecture and its network of partners, that is used to create, market and deliver this value in order to generate profit (Osterwalder and Pigneur, 2010). Business model innovation entails reinventing a business itself, not only the product and service offerings. It results in a different type of company that competes on more than just the product or service that they offer, namely their profit formula, resources, processes and value network (Chesbrough, 2007).

According to Tidd and Bessant (2011), innovation management can be understood by observing organizations that have survived for one or more centuries. Such companies have learned to manage the innovation process, by "doing better" and "doing differently" (Tidd and Bessant, 2011). A company must deploy knowledge resources to secure profits through the development of things already known, or exploitation as innovation researchers have coined this term (Tidd and Bessant, 2011, p.257). A company must also facilitate radical product or process innovation by re-orienting the firm to adopt new attributes and knowledge outside of its domain, which is what innovation researchers call exploration (Tidd and Bessant, 2011, p.257).

It is important to note that exploration and exploitation is not presented as a model for innovation management, they are only activities that if managed well can lead to innovation. In the next subchapter, we will describe the two concepts in greater detail, and give a practical example of both.

1.2.3 Exploration and exploitation

The concept of exploration and exploitation was pushed into the spotlight with March's famous and well-cited article "Exploration and exploitation in organizational learning" published in 1991. March (1991) provided a thorough definition of both exploration and exploitation, and since his definitions are widely accepted and cited today, we too chose to adhere to them as well.

Exploration is the process of developing new products and services. The explorative activities concern developing new markets, and/or radically renewing products or services (March, 1991). Exploration requires new competencies and explorative activities are seldom profitable in the short run. Exploration includes search, variation, risk taking, experimentation, play, flexibility, discovery, and innovation (March, 1991).

Exploitation is the act of using current knowledge to refine existing technology and processes. Exploitative companies pursue a strategy of effectiveness, and not flexibility, thus reducing waste and creating corporate systems that streamline processes (March, 1991, p.71). Exploitation includes such things as refinement, choice, production, efficiency, selection, implementation, and execution (March, 1991).

An example of exploration is when Apple developed and released the first iPhone, a device that mixed elements of computers, music players, and cell phones into one unit with a revolutionary touch display. Developing the iPhone was certainly an expensive process, and Apple had no way of knowing what the impact would be. They simply wanted to make a new device that was completely different from anything the world had ever seen before. The iPhone was a roaring success, and it contributed to the rapid decline of the once dominating Nokia, who could not adapt to the changing market demand.

The subsequent versions of the iPhone are examples of exploitation. When the first iPhone was a success, Apple knew there was a market, they knew who their customers were, and what they liked and disliked about the first model. Thus, making the next version of the iPhone was a less risky affair: they simply had to make it better than the first one. They still innovated in terms of features, reliability, design, and distribution, but did so along a defined path with many known variables.

Just as any other company, Apple has to both explore and exploit to be able to survive in the long run. But combining exploration and exploitation in one company is easier said than done, because the two activities require contradictory company capabilities. Exploration requires excess resources, slack, and room for experimentation, whereas exploitation requires a streamlined company structure and efficiency. Some scholars see the two activities as mutually exclusive concepts, and the choice between them as a trade-off (March, 1991, Lewis, 2000).

The majority of researchers within the field of innovation now agree that the activities of exploration and exploitation can be seen as a paradox, which means that it is theoretically impossible, but perhaps practically possible to be both explorative and

exploitative at the same time (Raisch et al., 2009). In innovation literature, balancing exploration and exploitation is described with the term ambidexterity, which in the literal sense means the ability to use both hands with equal dexterity. We will further explain the concept of ambidexterity in the next subchapter.

1.2.4 Ambidexterity

Ambidexterity is the organizational ability to balance both exploration and exploitation, and companies can be ambidextrous in different ways. The first studies on ambidexterity presented ambidexterity in terms of systems and structures, which is called an architectural approach to ambidexterity. An example of how architectural ambidexterity can be achieved is to have different departments within the organization that work with either exploration or exploitation (Tushman and O'Reilly, 1996). Other scholars argued that the choice to be ambidextrous can be made at an individual level, and that organizations need to have the right context in order for the employees to balance exploration and exploitation themselves. This is called contextual ambidexterity, a term introduced by Gibson and Birkinshaw (2004).

Andriopoulos and Lewis (2009) drew attention to the fact that previous scholars had focused on either architectural or contextual approaches, and claimed that a combination of both approaches is necessary for companies to be properly ambidextrous. Other scholars pointed to the fact that managers play an important role in ensuring the organization's ambidexterity (Smith and Tushman, 2005).

Ambidexterity, as a concept, was first introduced by Duncan (1976). Since then, it has been refined and extended, and become increasingly popular with innovation researchers. The number of studies in management journals that explicitly refer to organizational ambidexterity has grown exponentially since 1996. In 2004, less than 10 studies mentioned this concept, and the number of studies grew to 80 in 2009 (Raisch et al., 2009). When using the web search engine Google Scholar in May 2013, we found almost 1800 publications containing the term "organizational ambidexterity", and almost 1400 of them had been publicized after 2009. As ambidexterity is the theoretical focal point of our thesis, we will return to this topic in chapter 3 and describe it in greater detail.

1.2.5 Summary of theoretical context

We have provided a theoretical context to give the reader an understanding of which theoretical discipline our thesis belongs in. We place our work within the broad spectre of innovation research, where we aim to contribute to the field of innovation management. We will not participate in the discussion of how to manage innovation processes, but rather look at the activities conducted when innovating. We use March (1991) as a basis of discussion of exploration and exploitation, and continue to explore the ways in which a company can pursue both.

We will at this point leave the theoretical discussions of innovation and innovation management. We included innovation management in the theoretical context because we felt that it was important to provide an overview of the organizational theory that serves as the basis for ambidexterity. In Part II of this thesis, we will pick up the trail of exploration, exploitation, and ambidexterity. In the following

subchapter, we will describe the problem statement that we used to explore ambidexterity, both theoretically and in practice.

1.3 Problem statement

We set out to study how companies can be successful over long periods of time with a literature review in the fall of 2012 (Andersen et al., 2012). Our academic backgrounds are from Industrial Economics and Technology Management and Industrial Design, and in the last two years we have all studied at the NTNU School of Entrepreneurship. We had a notion from our academic backgrounds that innovation is a key ingredient for long-term success, and we wished to explore this theme further. Our starting-point was the classic article within innovation research: "Ambidextrous organizations: Managing evolutionary and revolutionary change" by Tushman and O'Reilly (1996), and from there we developed our understanding of ambidexterity in the context of innovation management.

Our interest became centred on ambidexterity in the service sector, and our questions were many: How does innovation occur in service companies with no R&D department? How does exploitation manifests itself in service companies? Is the issue of exploration and exploitation even really a paradox? Is it the organizations or the individuals that are to be ambidextrous?

Many of the articles we had read in our literature study were studies on large multi-national companies, which made us curious about how the topic of ambidexterity manifested itself in a context that we could observe, more specifically a company located in Norway. We iterated several times to find a well defined research question, and used four criteria as guidelines in our discussions. The arguments for our choice of criteria are described more thoroughly in our methodology in chapter 4. We wanted to study a (1) Norwegian (2) service company, with a clear (3) innovative edge and (4) long-term economic success. While trying to find a research question, we also worked at finding an interesting company that could serve as a unit of analysis in our case study. The choice of both our case company and our research question coincided, and our question ended up being:

How does Making Waves balance exploration and exploitation?

As the keen reader may have noticed, the word "service sector" is not included in our research question. We omitting the word "service sector" because the insights we gained from our study are based on empirical data from only one case company. We wished to be clear about the fact that the answers to our research question would be specific for Making Waves. Also, we decided to frame our case company in terms of which value configuration it had, instead of in the term service company, because the service sector turned out to be an imprecise definition. The choice was made after we had reviewed the literature and started on our analysis, and our arguments for doing so will be described in the following subchapter.

1.4 From the service sector to the value shop

In this subchapter, we will describe our focus on the service sector in our literature review, and clarify what we mean by the term service company. Then we will explain why we chose to frame our case company in terms of its value configuration, and give a short overview of the concept of value configurations. Finally, we will describe the value shop configuration more closely.

1.4.1 The service sector

When reviewing the literature concerning organizational ambidexterity, we became especially interested in how ambidexterity manifests itself in the service sector. Many of the articles we read were based on production-oriented companies (Jasmand et al., 2012, Marabelli et al., 2012), and we wondered if the theories were transferable to service companies.

Another reason for our interest was the fact that more companies are adopting a service-oriented business model, where services contribute heavily to corporate profit, revenue and customer satisfaction (Oliva and Kallenberg, 2003). Companies are reassessing their business models because of stagnating markets, growing commoditization and increasingly demanding customer needs (Neu and Brown, 2008, Matthyssens and Vandenbempt, 2008). The act of moving from a product-oriented to a service-oriented business model is known in the literature as servitization (Vandermerwe and Rada, 1989, Oliva and Kallenberg, 2003). We also find the service sector interesting because in Norway, as in many other western countries, the service sector employs around 75 per cent of the workforce (Kristiansen et al., 2009).

The term service sector is used in everyday language without a clear and commonly understood definition. Many see the service sector as made up of all companies that are not in the agriculture or manufacturing industry. The classification system NACE, used in the European Union, provides a somewhat more specific definition. According to NACE, the terms "service industries", "service sectors" or simply "services" are generally used to refer to economic activities such as hotels, restaurants, transport, storage, communication, financial intermediation, real estate, renting and business activities (Pires et al., 2008). The English Office for National Statistics defines the service sector as every business where the output includes all non-tangible and non-commodity goods (Butler, 1998). We consider the term tertiary sector to be synonymous to the service sector, as it is comprised of businesses that produce services instead of products.

1.4.2 Narrowing the focus

In the process of conducting our case study, we discovered a need to classify the type of company we were studying in more narrow terms than the service sector, because our results and contribution to the theory would be relevant to everything from hairdressers to research institutes if we used the service sector term. If we gain insight that allows us to build new theory, it is essential that this theory be tested with new case studies. The more narrowly we categorize our case company, the easier it will be to compare our results with other companies within the same category. By

using a more specific term, we would be able to conduct a more precise analysis, and be more specific of the transferability of our research.

There are several ways to narrow down the definition of a case company. Companies can for instance be classified by their size, their knowledge intensity, and the way in which they create value for their customer. It is common to distinguish between small- to medium-sized firms (SMEs) and large firms, where the limit between the two, most often is drawn at 250 employees. Ambidexterity has been researched in companies of all sizes earlier, and the SME classification is by no means a subcategory of the service sector. Classifying our case company by its size will not help us in improving our understanding of ambidexterity.

We could have placed our company in the knowledge intensive category, because knowledge intensive companies are heavily reliant on professional knowledge, and involve economic activities that are intended to result in the creation, accumulation or dissemination of knowledge (Miles, 1996). Knowledge intensive companies often comprise of legal services, engineering services, accounting and auditing services, and some medical services (Hipp, 1999). This classification does not describe the operations performed within the boundaries of the company, but rather the level of knowledge required. Since we are studying the operations performed in our case company, knowledge-intensity is not an adequate categorization.

The term “value configuration” distinguishes between firms by how they create value for their customers (Stabell and Fjeldstad, 1998), which means that they focus on the operations performed within the company boundaries. Since we wished to contribute to the theory of how organizations achieve ambidexterity, this categorization fits well with the purpose of our thesis. In the next subchapter, we will explain value configurations, with an emphasis on the value shop configuration.

1.4.3 Value configurations

Companies can be structured in different ways based on the way they deliver value to their customers. Such structures are called value configurations, of which there are three types: Value chains, value shops, and value networks.

The value chain was first described by Porter (1985), as a series of activities performed by a company to transform resources into products. According to Porter, structuring the company based on the activities in the value chain was necessary to be successful, and the value chain quickly became a popular tool for creating company strategies (Stabell and Fjeldstad, 1998). The value chain describes the activities in production-oriented companies well, but does not fit well for many other types of organizations. Stabell and Fjeldstad (1998) recognized this problem and created the value network and the value shop configuration.

A value network is a single company that is configured to mediate interactions and exchanges across a network of customers (Stabell and Fjeldstad, 1998). The value network can be direct, as in a telephone service, or indirect, as in retail banking where borrowers and lenders are linked together through a common pool of funds. In both cases, the customers constitute a network. The value shop configuration is a

model for how companies mobilize resources and activities to solve problems for customers, to create value. In the next subchapter, we will describe the value shop in detail, because this is the model we consider our case company to most closely resemble. The reason we think so will be explained briefly in the subsequent subchapter, and more thoroughly in subchapter 7.2.

1.4.4 The value shop

Stabell and Fjeldstad (1998) explain that value shops plan activities and apply resources in a fashion that is dimensioned to the needs of their customer's problem. Good examples of the value shop model include consultancy companies within healthcare, law, architecture, IT and construction (Stabell and Fjeldstad, 1998). Employees in such companies are often organized in business units based on a field of speciality, but work in project-based groups. This means that their immediate manager is most likely a project manager, as opposed to a line manager, which employees in value chain companies usually report to. Stabell and Fjeldstad (1998) outlined five main primary activities of a value shop:

Problem finding and acquisition - Recording, reviewing, and formulating the problem to be solved and choosing the overall approach to solving the problem.
Problem solving - Generating and evaluating alternative solutions.
Choice - Choosing among alternative problem solutions.
Execution - Communicating, organizing, and implementing the chosen solution.
Control and evaluation - Measuring and evaluating to what extent implementation has solved the initial problem statement.

Execution is a very obvious step when solving a customer problem, because it is a prerequisite of any project. If one does not intend to implement the chosen solution there is no point in starting a project at all. Execution could perhaps have been grouped together with choice, rather than having its own place in the value shop diagram, but has been given its own place by Stabell and Fjeldstad (1998). Figure 1.1 explains the relationship between the different steps in the value shop process. Infrastructure, human resource management, technology development and procurement are considered to be business support activities, and are the same for all three types of value configurations.

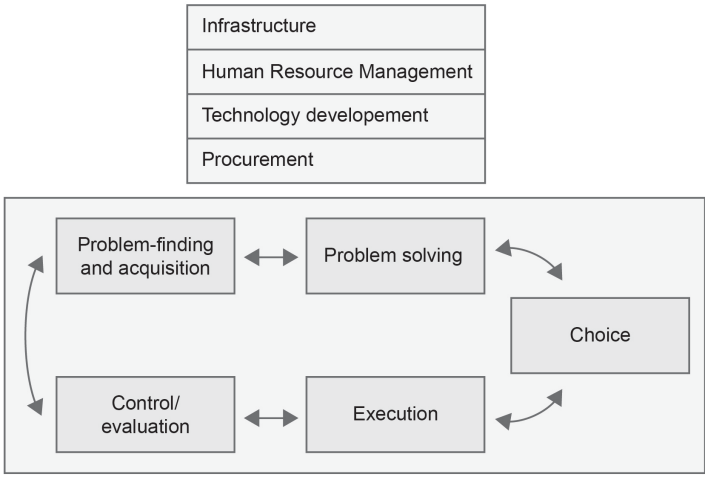


Figure 1.1 Value shop configuration.

The value shop sells solutions to their customer's problems to solve problems, which means that they sell a non-tangible good. Since the definition of a service company is every business where the output includes all non-tangible and non-commodity goods, a value shop is a sub category in the service sector category. Stabell and Fjeldstad (1998) claim that value shops rely on technology to solve a customer problem, and that the different steps in the value shop process can vary according to the requirements of the problem at hand. There is an emphasis on intensive use of technology in value shops that is not a part of the general service company definition.

Now that we have described the value shop configuration, we will explain why we consider our case company, Making Waves, to have this configuration. We will also explain why we believe that our case company can be considered ambidextrous.

1.5 Making Waves

As described in the previous subchapter, we decided to narrow the focus in our thesis down from the broad term service sector to a value shop configuration. The insight from our analysis is based on a single case, and our findings could be more relevant by choosing a narrower category.

Our case company is a consultancy company called Making Waves that sells digital services to a wide spectre of customers. They are technology intensive, and they put together different multidisciplinary project teams depending on the type of problem that needs to be solved. The characteristics of our case company are very similar to those used to describe a value shop configuration; therefore we consider our case company to be a value shop. A more in-depth analysis of Making Waves as a company with a value shop configuration will be presented in subchapter 7.2.

Since we are researching how companies achieve ambidexterity, a premise for our case study is that our case company is ambidextrous. We consider Making Waves to be an ambidextrous company based on the indicator of profitability over a substantial amount of time, more specifically since 2001. In this thesis, we define profitability as the condition of yielding a financial profit or gain. As explained more thoroughly subchapter 3.2.2, there seems to be a consensus among innovation researchers that ambidexterity is required for long-term survival, and our interpretation of long-term survival is that a company is profitable. Making Waves has existed for 12 years with the same owners in a market where similar companies have come and gone at a high speed. We therefore believe that Making Waves can be described as an ambidextrous organization. If they were not, we would discover it quickly when analysing them according to ambidexterity criteria presented in chapter 3. Making Waves will be described more in detail in chapter 5 and in subchapter 7.2.

1.6 Purpose of thesis

Historically, ambidexterity has never been as important as it is today, due to the rapid technological shifts and increasingly complex organizations (Tushman and O'Reilly, 1996). Theoretically, scholars are far from an agreement on how organizations should achieve the goal of ambidexterity. As Gupta et al. (2006, p.697) explain: "although a near consensus exists on the need for balance, there is considerably

less clarity on how this balance can be achieved". Companies in the western world are moving from product-oriented business models to service-oriented business models, changing the ground rules of innovation in the process. This creates an interesting context for our research, and by narrowing down our scope from the service sector to a company with a value shop configuration, we can be more specific about the relevance of our findings.

The purpose of our thesis has not been to directly criticize the theories of ambidexterity, or to create a complete framework for how companies can achieve this state. Our goals have been to explore how ambidexterity manifests itself in a Norwegian value shop configured company, and understand more about how our unit of analysis deals with the paradox of exploration and exploitation. Our aim is to contribute empirically, practically and theoretically to the field of innovation management, and we will briefly explain how we intend to proceed.

We consider the practical implications of our research to be insights that our case company can use. Since our research is limited to one company, we cannot venture to say that our work will result in practical tips that all value shop organizations can make use of. But since our thesis is case specific, and has an extensive amount of empirical data, it may help the employees in our case company understand themselves better.

When it comes to theoretical implications, we wish to contribute to new theory by linking the theory on ambidexterity from our literature study, with our empirical findings. In doing so, we will look for both alignments and misalignments between theory and empirical data that may implicate new theory. We hope to contribute to a discussion of the current theory by strengthening existing theory in the areas that we deem important, and by creating new propositions that can help fill in theoretical gaps.

We also produced a substantial amount of empirical data, as we interviewed, transcribed and analysed 18 employees within our case company, and ended up with over 300 pages of written material. This data will hopefully expand the empirical database, and can be used for further research on ambidexterity.

The overall purpose of this thesis is to give other researchers and stakeholders a better understanding of innovation within the service sector, by applying organizational ambidexterity as the explanatory model. Now that we have explained how we hope to bring value to the field of innovation management, we will continue with a description of our thesis structure and an illustration that will help describe how we combined theory and empirical data in our discussion.

1.7 Thesis structure

The thesis is divided into in four main parts: I) introduction, II) theory, III) methodology and empirical data, and IV) discussion and conclusions. Part I, and the corresponding chapter 1, present an introduction to give the reader an understanding of the historical and theoretical context of our thesis. We present the research

question in the same chapter, as well as a description of our case company.

Part II is split into two chapters and presents an overview and discussion of the theory. Chapter 2 describes exploration and exploitation, and we discuss how the need for both creates a paradox that can be solved with ambidexterity. In chapter 3 we present theory on ambidexterity, internal, and external approaches, as well as a framework with four main internal approaches to achieve ambidexterity. Each approach to ambidexterity is presented with a metaphor from a construction process: bricks, mortar, the combination of both and a builder. These metaphors are used to illustrate that the approaches need to be used in combination to build ambidexterity, which is illustrated as a house of bricks and mortar. Figure 1.2 depicts the four approaches, along with an illustration of the metaphor we have linked them to. These four approaches will be essential to our discussion in Part 4.

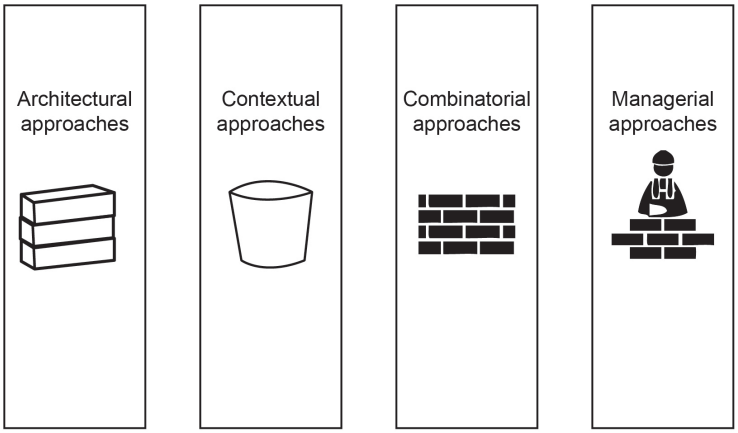


Figure 1.2 Representation of approaches to ambidexterity.

In addition to four approaches to ambidexterity, we identify interesting propositions that will be used to shed light on our research question. These propositions are illustrated as grey circles, as shown in Figure 1.3, and they will be used to explore our research question in part 4.

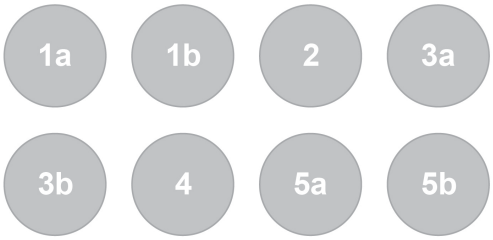


Figure 1.3 Our propositions.

Part III is divided in three chapters: 4 Methodology, 5 Case Company and 6 Empirical data. The methodology chapter describes how we used a method inspired by grounded theory to create three categories based on the empirical data from our interviews, which we relate to our propositions. Chapter 5 describes Making Waves in form of their history, business system, offices and growth. Chapter 6 presents a summary of our interviews based on quotes. The three empirical categories are presented in Figure 1.4 as rectangular boxes. These will be used to structure the discussion of our theoretical approaches in part IV.

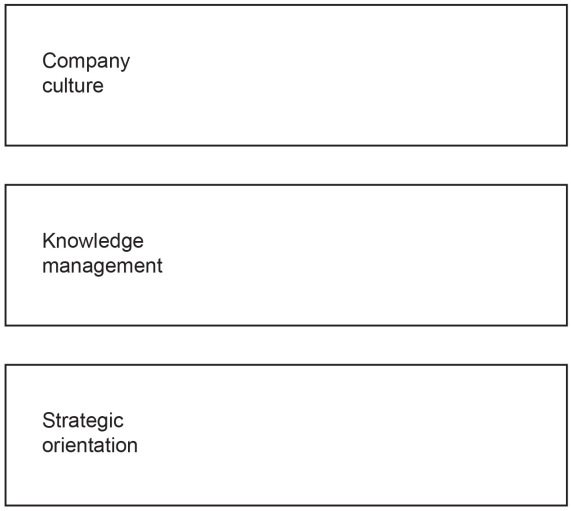


Figure 1.4 Categories from empirical data.

Part IV is divided into three chapters: 7 Discussion 8 Summary of propositions and 9 Conclusion. In chapter 7, we discuss our four propositions from the theory in relation to our three categories from the empirical data. We discuss our findings by linking our empirical data against the theory. We merge our four theoretical approaches with our three empirical categories, and place the propositions in the matrix based on what subjects they cover. The theoretical approaches are illustrated as vertical columns, the empirical categories as horizontal columns and the propositions as grey circles or ellipses. Figure 1.5 shows how the theoretical and empirical categories were merged to create a matrix in which our propositions could be inserted, and how the combination of categories and propositions constituted our framework for discussion.

In chapter 8, we summarize our discussion from chapter 7 under separate subchapters for each proposition, and explain the implications of our results. In chapter 9, we try to answer the research question based on the discussion of our propositions. We also suggest topics for further research, and present our case company with advice based on our insights from the discussion.

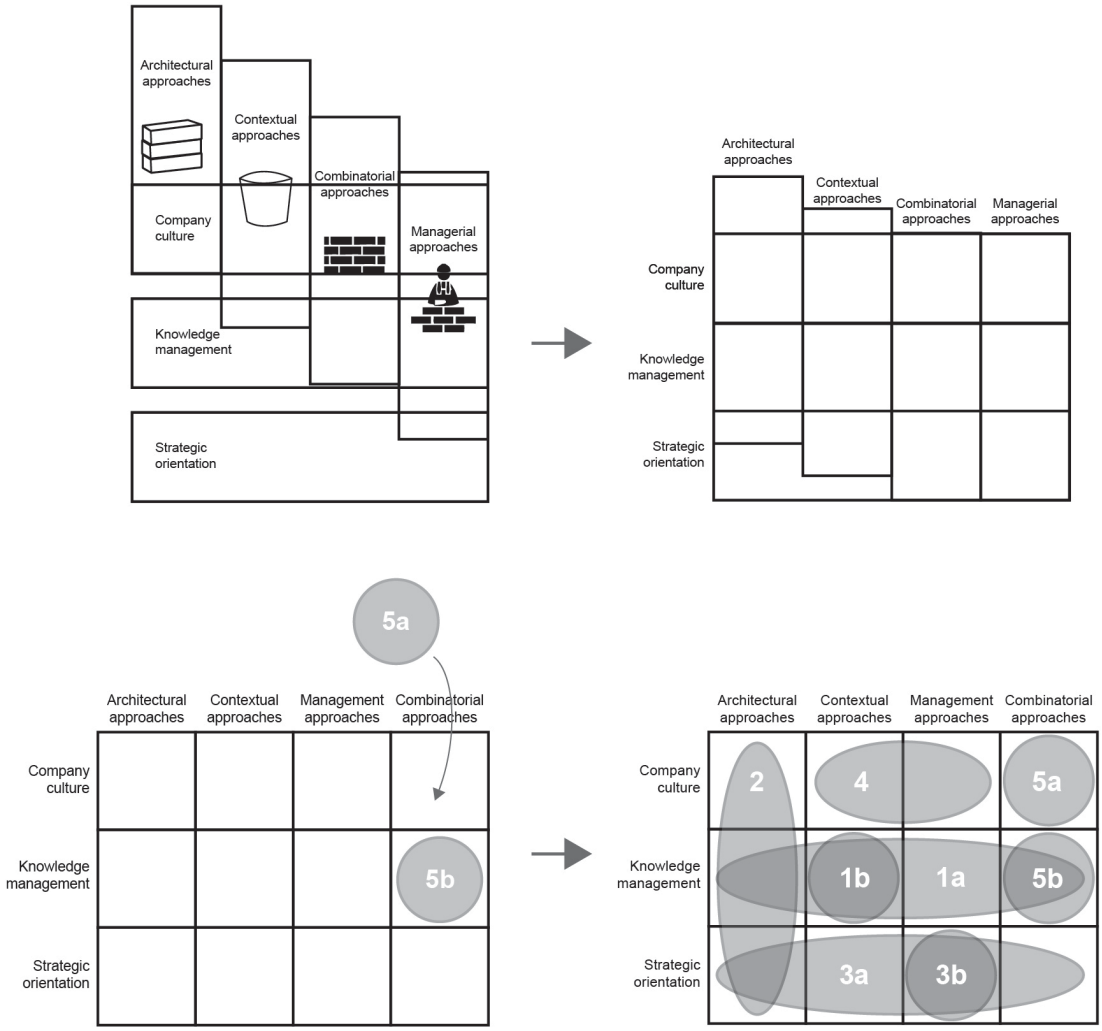


Figure 1.5 The framework for our discussion.

Part II

Theory

2 Exploration and exploitation

In this chapter, we will revisit the concepts of exploration and exploitation, which were introduced in chapter 1. We will examine both concepts separately and how they are related to each other. Then we will describe how pursuing both exploration and exploitation in the same organization creates a paradox, and how this paradox can be solved by the concept of ambidexterity, which we will discuss further in chapter 3.

March (1991) started the debate on exploration and exploitation, and provided widely accepted definitions that we chose to use in this thesis. Exploration is the process of developing new products and services. It requires new competencies and is seldom profitable in a short time perspective (March, 1991). Exploitation is the act of using current knowledge to refine existing technology and processes, and companies that are explorative pursue a strategy of effectiveness, thus creating corporate systems to streamline processes (March, 1991).

2.1 Different views on exploration and exploitation

March's (1991) definition of exploration and exploitation is quite broad, which leaves room for different viewpoints of what the concepts of exploration and exploitation actually constitute. There have been two main views on the concepts within the field of organizational theory: one seeing exploration as learning and exploitation as using prior knowledge, and the other seeing them as two different types of innovation. Supporters of the first view see exploration as an activity that has to do with learning and innovation, and exploitation as an activity that is carried out with a goal of using prior knowledge rather than learning new things (Gupta et al., 2006).

Supporters of the other view claim that both exploration and exploitation have to do with learning and innovation. Benner and Tushman (2003) state that exploitation involves improvement in existing technological components and competency, while exploration involves a change of technological course. According to Baum et al. (2000), exploration is a type of learning that requires planned experimentation and play, and exploitation is a type of learning that is achieved by refining, selecting and reusing existing routines. He and Wong (2004) define explorative innovation as activities aimed at entering new product-market domains, and exploitative innovation as activities with a goal to improve performance in existing domains.

Of the two different views on exploration and exploitation, we choose to side with the view of exploration and exploitation as two types of learning and innovation. We interpret March's (1991) definitions of exploration and exploitation to entail learning processes. We understand exploration to be about learning how to do something different, and exploitation about learning how to get better at what you already know how to do. In both cases the activities can lead to innovations, which according to Bessant et al. (2005) are new additions to products or services, or changes related to how a product/service is created and delivered.

We will present exploration and exploitation in separate subchapters, and describe the practices and results of both.

2.2 Exploration

Exploration is the process of developing new ideas, products and services. Being explorative enables firms to reach out to new markets, a process that requires new competencies (March, 1991). There is a consensus in literature that exploration is the activity best fit for searching for new knowledge (Gupta et al., 2006). This is because exploration is "rooted in variance increasing activities, learning by doing, and trial and error" (Smith and Tushman, 2005, p.522). An exploratory strategy emphasizes gaining new information about alternatives, requiring an investment to search among uncertain alternatives. Exploration includes search, variation, risk taking, experimentation, play, flexibility, discovery and innovation, and is considered a contradiction to exploitation (March, 1991).

Exploration is connected to experimentation, divergent thinking and increasing variance. It is also connected to radical innovations aimed at emerging markets (Smith and Tushman, 2005, Jansen, 2005). According to Jansen (2005, p.17) "exploration involves the search for new organizational routines and the discovery of new approaches to technologies, businesses, processes and products". From Jansen's (2005) statement, one can interpret that exploration may lead to radical innovations, which have to do with "doing something different" (Tidd and Bessant, 2011). If an organization has the goal of implementing exploration in their activities, the organizational structure should be unconstrained, according to (O'Reilly and Tushman, 2004). In addition to the right structure, it is our opinion that an organization must have slack to be able to be explorative. We will explain why in the following subchapter.

2.2.1 Being explorative

One way of achieving exploration is the concept of "slack" (Herold et al., 2006). Geiger and Makri (2006, p.97) define slack as "resources available to an organization that are in excess of the minimum necessary to produce a given level of organizational output". The main idea behind organizational slack is to make time available for the facilitation of the innovation processes. This can make the firm able to absorb failure, acquire innovations and explore ideas prior to actual need (Herold et al., 2006). It is important to note that the question of whether slack leads to innovation is not agreed on in the organizational literature (Nohria and Gulati, 1996). Supporters claim that it allows an organization to innovate by permitting employees to experiment with new strategies and projects (Nohria and Gulati, 1996, p.1245). Opponents of slack claim that it decreases incentives to innovate, and that it results in undisciplined investment in R&D activities that do not pay off (Jensen, 1986).

Nohria and Gulati (1996) explored the question of whether slack contributes or inhibits innovation. In their study, they demonstrated an inverse U-shaped relationship between slack and innovation. They showed that too little slack and too much slack are both bad for innovation (Nohria and Gulati, 1996). On one hand, one can risk stopping a promising project because of fiscal discipline. On the other hand, one can pursue someone's folly pet project because it is difficult to justify termination

of the innovation process (Nohria and Gulati, 1996). From our theoretical perspective it seems likely that both sides are partially right, and therefore we agree with the findings of Nohria and Gulati (1996) that indicate a certain amount of slack is good for innovation. The U-shaped relationship is shown in Figure 2.1.

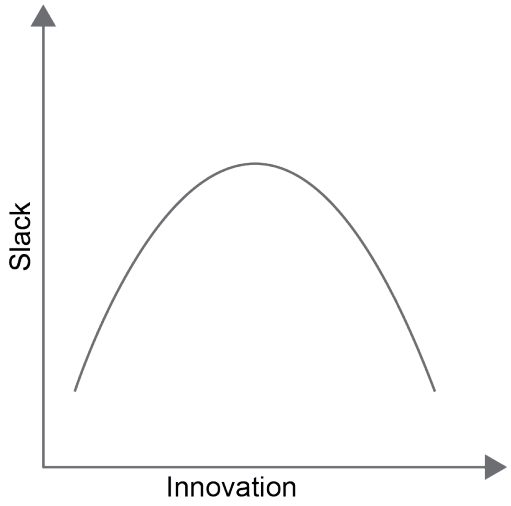


Figure 2.1 Slack and innovation.

Real-life examples of how slack has resulted in innovation are ample. Google's success is partly based on their use of slack in their organization (Manyika, 2008). Google has a policy called "Innovation Time Off", where they allow employees to spend 20 % of their time on projects of their own choosing that are company related, and interest them personally. Gmail and Google News are among the products that have emerged because of "Innovation Time Off" (Bick and Mediratta, 2007). By the second half of 2005, half of Google's product launches stemmed from this policy (Miraclemart, 2009). According to O'Reilly and Tushman (2004), exploration calls for more visionary and involved managers, and it also requires an organization that is flexible and unconstrained.

2.2.2 Results of exploration

Exploration involves risk, both because of the fact that explorative activities may not pay off, and because of the nature of the explorative activity itself. Gupta et al. (2006) explain that the latter risk comes from the fact that exploration activities can be self-reinforcing, and produce a "failure trap". A failure trap is a state where failed ideas and initiatives only lead to more exploration in companies that are searching for the next big thing (Gupta et al., 2006). According to March (1995, p.432) a "failure trap" is when an "organization fails, tries a new direction, fails again, tries still another direction and so on. The process leads to an endless cycle of failure and exploration."

The desired result of exploration and an appropriate amount of slack is an innovative company. Innovation can, according to Francis and Bessant (2005), manifest itself in four categories: product, process, positioning or paradigm innovation. It is possible for a company to move from its current position to one of the four different categories by either incremental or radical innovations, or innovations that are somewhere at a

continuum between the two. Incremental innovation can be characterized by doing what you do better, and radical innovations are characterized by doing something different (Tidd and Bessant, 2011). The core of exploration is doing something different. Therefore, the desired result of exploration is radical innovation that manifests itself through new or improved products, processes, market positions or paradigms, which will indirectly result in economic growth, if the company is able to capitalize on the innovation (O'Reilly and Tushman, 2004).

We have now defined exploration, and explained which organizational structure and which methods a company can adopt to be explorative. We have commented on the discourse about whether slack is good or bad for innovation, and presented both the negative and positive results exploration can lead to. The concept of exploration will be further contextualized and discussed in subchapter 2.4, but we will first present the concept of exploitation.

2.3 Exploitation

In this subchapter, we will present the concept of exploitation in the same manner as we did with exploration, and we will also present the first of our propositions.

Exploitation is the act of exploiting current knowledge to refine existing technology and processes. While pursuing exploitation, a company will focus on effectiveness, and not flexibility, thus reducing waste and creating corporate systems to streamline processes (March, 1991). Exploitation includes such things as refinement, choice, production, efficiency, selection, implementation and execution (March, 1991). March (1991, p.72) describes exploitation as a choice of investment, where one concentrates on finding the best alternative in a group of known alternatives, as opposed to searching for new information about unknown alternatives.

Exploitation is closely linked to Porter's (1985, pp.12-13) generic cost leadership strategy where he emphasizes that "A low-cost producer must find and exploit all sources of cost advantage." Companies that sell commodities or generics enjoy a more simple and stable environment (Daft, 1995), and have embraced this type of exploitative activity (Anderson et al., 2009).

When implementing exploitative activities, a company focuses on utilizing and improving existing competencies, which results in incremental innovations (Jansen, 2005, Andriopoulos and Lewis, 2009). These competencies can comprise of both tacit and explicit knowledge (Nonaka, 1994) such as skills, processes, established designs and distribution channels (Jansen, 2005). Jansen (2005) describes a set of competencies that involves tacit or explicit knowledge, but does not clarify how these competencies can be combined for the sake of achieving ambidexterity. March (1991), O'Reilly and Tushman (2004), Andriopoulos and Lewis (2009) all describe the refinement of existing knowledge as the path to exploitation, but do not explain which type of knowledge, or which combination they recommend.

It seems natural that a formalized and explicit definition of a company's operations is necessary to exploit one's competitive advantages, because explicit knowledge can make it easier to spread and exploit knowledge, thereby increasing the efficiency in a

company. But we have not found a description of how to deliberately combine tacit *and* explicit knowledge to achieve exploitation, especially not in the context of a value shop configuration. On that premise, we would like to introduce our first proposition:

> A value shop deliberately combines both tacit and explicit knowledge to achieve exploitation.

In our efforts to support this proposition, we will provide a in-depth description of how Making Waves not only achieves exploitation, but also how they balance exploration and exploitation, since knowledge and learning are inextricably linked to both concepts.

O'Reilly and Tushman (2004) claim that in order to facilitate exploitation in an organization, the organizational structure must be formal and constrained. This makes sense, when one considers March's (1991) focus on effectiveness and streamlined processes in his definition of exploitation. An exploitative method that can supplement an organization's initiatives towards exploitation is the concept of lean, which we will present in the next subchapter.

2.3.1 Being exploitative

Lean is a well-known method companies use to increase their exploitative efforts (Chen and Taylor, 2009). The main focus of the lean method is to get rid of waste by eliminating every process, action and resource that does not add direct value to the product (Skorstad, 2002). To be able to identify waste, one has to identify what the end-customer values (Imai, 1986, Womack and Jones, 1996). The reason for focusing on the end customers' perception of value is, according to Womack and Jones (1996, p.141), to avoid producing "the wrong product or service in a highly efficient way." Other methods that have evolved in the quest for high quality products, at relative low cost, at the time when needed, are just-in-time (JIT) and total quality management (TQM) (Chen and Taylor, 2009). JIT focuses on strictly producing on the basis of real, and not predicted, demand, and TQM concerns the continuous improvement of product or processes (Chen and Taylor, 2009).

Lean originates from the automobile industry in Japan in the 1950s, and serves as part of the explanation for Japan's growing share of the global car market from the fifties to the late eighties (Skorstad, 2002). While the US share of the automobile market shrunk from 50 % to 25 %, the Japanese share increased from 1,4 % to approximately 28 % (Skorstad, 2002). In order for an organization to implement exploitation, the organizational structure should be formal and mechanistic, and the management should lead with authority (O'Reilly and Tushman, 2004).

2.3.2 Results of exploitation

Exploitation is closely linked to what Tidd and Bessant (2011) call incremental innovation, which is an innovation type characterized by "doing what you do better". It is expected that the result of exploitation is incremental innovations in form of improved or adjusted products, processes, market positions or paradigms, which again will result in a greater profit (O'Reilly and Tushman, 2004).

Exploitation has brought about substantial profits for many of the companies that employ it, at least in short term cycles (Tushman and O'Reilly, 1996), but it involves a risk of creating a "success trap" (Gupta et al., 2006). A success trap is what happens when a company achieves early success based on effectiveness improvements, and in turn increases its emphasis on exploitation (Andriopoulos and Lewis, 2009). In the long run, a company that only emphasizes on exploitation can develop a structural and cultural inertia that can prevent the company from reacting to technological shifts (Tushman and O'Reilly, 1996). Another potential negative consequence of implementing lean is that creativity may unintentionally be crushed (Chen and Taylor, 2009). Chen and Taylor (2009, p.826) remark: "This is especially true when the lean philosophy is applied to be the only way that organizations think and manage".

In this subchapter, we have described exploitation, and the methods and structures that can be used to achieve it. We have also presented some of the positive and negative outcomes of exploitation. The next subchapter will describe how exploration and exploitation can co-exist in the same organization. But first, we will summarize our main points from both subchapter 2.2 and subchapter 2.3 by presenting Table 2.1, where we juxtapose exploration and exploitation, according to the most central themes in our discussion:

Table 2.1 Overview of key points related to exploration and exploitation.

	Exploration	**Exploitation**
Structure	Unconstrained	Formal and constrained
Method	Slack	Lean
Possible positive outcome	A radical innovation and subsequent economic growth	Incremental innovation that result in lower cost and greater profit
Possible negative consequences	Failure trap	Success trap

2.4 The coexistence of exploration and exploitation

As discussed in the two previous subchapters, both exploration and exploitation can lead to innovation, but it is disadvantageous for a company to only focus on one of the two activities. Organizations that are too focused on exploration end up with too many undeveloped new ideas, and lacking a distinctive competence (March, 1991), which is called the failure trap. On the other hand, organizations that solely engage in exploitation are likely to find themselves trapped in suboptimal stable equilibriums (March, 1991), called the success trap. It is therefore essential to achieve a proper balance between exploration and exploitation in all organizations (He and Wong, 2004).

Since both exploration and exploitation can have negative results if they are pursued to the extreme, scholars have grappled with the question of what the right amount of exploration and exploitation is. They have also discussed whether exploration and

exploitation can exist in the same organization, and there are two main views on this matter. The first view is that exploration and exploitation are mutually exclusive, and the choice between the two is considered a trade-off, and companies must choose to pursue either exploration or exploitation. The second viewpoint is that the existence of exploration and exploitation together creates a paradox, where they are seen as mutually exclusive entities that can exist simultaneously in the same organization.

2.4.1 Exploration and exploitation as a trade-off or a paradox

Exploration is captured by terms such as search, risk-taking, experimentation, and innovation; exploitation, on the other hand, is associated with refinement, efficiency, selection, and execution (March, 1991). March (1991) describes the relationship between the two processes as conflicting, to the point where it is almost impossible for both to exist in the same organization, because they have contradictory goals, require different organizational contexts, and compete for scarce resources. The relationship between the exploration and exploitation is a type of zero-sum game where both activities compete for managerial attention, scarce resources, and organizational routines; therefore, logic dictates that exploration and exploitation should be viewed as two ends of a continuum (March, 1991).

Scholars have often presented strategy as a set of choices where the best choice is the one that leads to greatest economic surplus (Martin, 2007). A classic example is Porter's (1985) generic strategy model, where he draws a clear distinction between cost and differentiation as two paths that lead to competitive advantage. Porter (1985) claims that a company must choose one or the other, which means that a company should either aim to be cost effective or pursue a differentiation strategy where they attempt to compete on other factors than price. This view is in accordance to March's (1991) view on exploration and exploitation, as he sees the choice between cost and differentiation as a trade-off.

However, scholars have increasingly recognized the importance of simultaneously balancing seemingly contradictory choices. They have begun to shift their focus from trade-off (either/or) to paradoxical (both/and) thinking, and increasingly view exploration and exploitation as a paradox (Gibson and Birkinshaw, 2004, Earley and Gibson, 2002, Lewis, 2000). The leading consensus among scholars is that exploration and exploitation can be seen as orthogonal constructs that can coexist within organizations (Baum et al., 2000, Beckman et al., 2004). The emergence of this perspective is associated with the development of the concept ambidexterity (Nemanich and Vera, 2009), which we will explain in chapter 3. We will now present the paradoxical view, and how paradoxes can be solved in general.

2.4.2 Paradoxes

A paradox is the existence of two truths which separately appear logical, based on sound arguments, but that contradict each other. Paradoxes have a range of sub-categories, where logical and rhetorical paradoxes are among the oldest and best known. An example is the logical paradox The Liar from 400 B.C., which states: "I always lie". The statement seems both true and false at the same time, and it has puzzled great philosophers such as Aristotle and Wittgenstein. It has provided a basis for thought exploration and theory development through history (Poole and van

de Ven, 1989). Poole and van de Ven (1989, p.564) state that "because theory building is a discursive enterprise, rhetorical strategies of handling paradoxes effectively are a central concern". This statement gives an argument for why the paradox of exploration and exploitation is interesting to study, given its status as an organizational paradox.

Organizational paradoxes are increasingly popular as basis for new theory development (Lewis, 2000) because the theoretical discourses they form, present possibilities of a richer form of understanding, instead of assuming that every problem has an "either-or-solution" (Poole and van de Ven, 1989). Today's scholars see strategy as exploring opportunities provided by the tension and complexity of conflicting options (Poole and van de Ven, 1989, Martin, 2007). Paradoxes represent two sides of the same coin without any preferred end-point, as one gets with dilemmas or trade-offs (Lewis, 2000).

2.4.3 The paradox of exploration and exploitation

Lean manufacturing is an example of exploitation, as it has to do with reducing cost by making processes within the company more efficient. When using lean manufacturing, everything that does not add value to the intended task, aptly named "waste", is removed (Imai, 1986). Exploration, on the other hand, requires "waste", or slack, in the form of extra time to work on things that do not necessarily lead to instant value, and spare resources to fuel creative processes and new thinking.

Exploration and exploitation stand as two opposites that are well defined, well reasoned and well supported alternative explanations of mind-sets that lead to success (Poole and van de Ven, 1989). They are simultaneously true, because both mind-sets can lead to economic surplus, and are mutually exclusive since they require contradicting competencies (De Wit and Meyer, 2010). There seems to be no way to integrate both activities in an organization. This fact, along with the consensus in literature about the importance of balancing exploration and exploitation in organizations (Gibson and Birkinshaw, 2004), creates a paradox. Improving on capabilities required for exploration reduces the capabilities required for exploitation, and vice versa. Therefore, if a company is to implement both exploration and exploitation, there will arise a problem of structuring and managing the company efficiently.

2.4.4 Solving the paradox

Poole and van de Ven (1989) did not only emphasize the importance of paradoxes in gaining a new and deeper understanding, but also presented a framework for how to handle them. The framework offers four methods for tackling a paradox: opposition, spatial separation, temporal separation and synthesis. Opposition is to acknowledge the paradox and appreciate its opposing aspects. In our case, opposition would be to acknowledge the tension created by exploration and exploitation. The second and third method involves some form of separation, either in time (temporal) or space (spatial). The last approach, synthesis, is defined as a new level of understanding that is achieved by joining together the contrasts of the paradox, not as a compromise, but as a coherent whole. See Table 2.2 for a compilation of the four methods.

Table 2.2 Synthesis of paradox, inspired by Poole and van de Ven (1989)

Opposition	Keep A and B separate and their contrasts appreciated.
Spatial separation	Situate A and B at two different levels or locations in the social world.
Temporal separation	Separate A and B temporally (in time) in the same location.
Synthesis	Find some new perspective which eliminates the opposition between A and B.

The term ambidexterity, which is the focal point of our thesis, could be viewed as representation of a synthesis. Ambidexterity is defined as an organization's ability to balance both exploration and exploitation (Raisch and Birkinshaw, 2008), which means that ambidexterity is the solution for the paradox of exploration and exploitation. Ambidexterity will be described in full in chapter 3.

2.5 Summary

In this chapter, we have explained the concepts of exploration and exploitation. We have used March's (1991) definition of the two concepts, and described the different views that exist in the literature. Exploration is the process of developing new ideas, services or products, and it can lead to radical innovations if the conditions are right. Exploitation can lead to incremental innovation, and it is the act of exploiting current knowledge to refine existing technology, products and processes. Our discussion of the concept of exploitation led to our first proposition: *A value shop deliberately combines both tacit and explicit knowledge to achieve exploitation*. Exploration and exploitation require very different company configurations, and it therefore seems impossible that a company can do both. Yet, every company must do so in order to survive in the long run, which institutes a paradox.

In the next chapter, we will discuss the concept of ambidexterity, which is a way to solve the paradox of exploration and exploitation. Ambidexterity is the central topic in our case study research, therefor it will also feature in our discussion in chapter 7.

3 Ambidexterity

In the previous chapter, we explained the concepts of exploration, exploitation, and how a company that is able to do both is exercising organizational ambidexterity. In this chapter, we will present a definition of ambidexterity and explain how ambidexterity can lead to success, and which approaches an organization can apply to achieve ambidexterity. We will identify interesting themes from the theory such as possible gaps, and possibilities of strengthening existing claims. When we identify such areas of interest, we will create related propositions that will be used to explore our research question.

We will focus on internal approaches to ambidexterity, which are approaches that are used within the boundaries of the organization. We have divided the internal approaches into four subcategories, and we have created a metaphor that explains the connection between them. The metaphor is created to help the reader understand how the four approaches can be used together to achieve ambidexterity.

3.1 Definitions

Duncan (1976) was among the first to use the term ambidexterity, and he defined it as a company's ability to deal with the tensions that arise from managing both exploratory and exploitative innovation in the same organization (Gibson and Birkinshaw, 2004). Tushman and O'Reilly published the first comprehensive study on ambidexterity in 1996. According to the two authors, ambidextrous organizations are defined by their ability to implement both evolutionary and revolutionary change, or exploration and exploitation (Tushman and O'Reilly, 1996).

According to Lubatkin et al. (2006), ambidextrous organizations are capable of simultaneous, yet contradictory, knowledge management processes, exploiting current competencies and exploring new domains with equal dexterity. Gupta et al. (2006) describes ambidextrous organizations as capable of managing both exploration and exploitation synchronously. A more recent definition of organizational ambidexterity is presented by Raisch and Birkinshaw (2008), who define it as an organization's ability to be aligned and efficient in its management of today's business demands while simultaneously being adaptive to changes in the environment. The consensus in the innovation research community is that one can define companies that pursue two types of disparate things simultaneously as ambidextrous organizations (Benner and Tushman, 2003, Gibson and Birkinshaw, 2004, Gupta et al., 2006, He and Wong, 2004).

3.2 Ambidexterity and performance

From when the concept of ambidexterity was introduced as a subject in organizational theory, it has been a common understanding that ambidexterity leads to long-term success in organizations (March, 1991, Tushman and O'Reilly, 1996). In subchapter 3.2.1, we will describe the need for ambidexterity with a metaphor of evolution, and in subchapter 3.2.2, we will present the large-scale empirical studies that have strengthened March's (1991) claims. Only recently have some scholars started to question if ambidexterity is always the answer, and we will present these questions in subchapter 3.2.2 along with our own thoughts on the matter.

3.2.1 The metaphor of evolution

Tushman and O'Reilly (1996) use a metaphor of evolution when they describe why ambidexterity is a prerequisite for long-term survival. We feel that metaphor of evolution is very descriptive, and wish to present our version of as it can lead to better understanding.

Companies can be compared to a specimans fighting for survival in an environment characterized by gradual and disruptive changes. In the same way as living organisms, organizations must also evolve and change as a result of changes in their environment. In evolutionary biology changes in the environment and the genetic variation in a species will result in natural selection. The best-fit specimen will survive, and the species as a whole will change in tune with their environment. An example of natural selection is the thirteen species of finches living on the Galapagos Islands, who all have developed different beaks according to their preferred diets. It is important to stress the fact that this is not because individual finches' beaks gradually changed in their lifetime, but that the finches with specific beaks were better at exploiting their environment, and therefore had a larger chance of surviving and passing on their genes.

There are, however, certain times when the rules of natural selection do not apply. When extreme events take place, like forest fires, earthquakes or meteor showers, the game changes. Let's say there was a type of finch that had a beak that made them efficient at eating nuts from a particular thorny tree, and a forest fire kills off the thorny trees that the nut-eating finches were reliant on. This could result in a situation where the nut-eating capability does not give the finches an advantage, but instead the capability to find worms is the trait that will most likely lead to survival. If this was an actual event, and a particular finch species could not adapt to the sudden change, they would have become extinct.

If one were to draw a parallel between organizational evolution and natural evolution, one can compare the gradual adaption of a species to its environment to organizations pursuing exploitation by constantly getting a bit better at what they already know how to do. Sudden changes can also occur in an organizational context, such as technological shifts, a financial crisis or a revolution. In these situations, the organizations that can adapt to the new situation the fastest and in the best manner have the best chances of surviving. And in order to be able to adapt fast, a company must pursue explorative activities.

3.2.2 Theoretical discourse on the benefits of ambidexterity

Tushman and O'Reilly (1996) stated that ambidexterity is a requirement for an organization that wishes to be successful over time. Several other scholars have since argued the connection between a company's ambidexterity and its long-term success. They claim that companies that are aligned and efficient in their management of today's business demands while simultaneously adapt to changes in the environment, will prosper in the long run (Gibson and Birkinshaw, 2004, Tushman and O'Reilly, 1996).

Several scholars criticized March (1991) and Tushman and O'Reilly (1996) due to the fact that they had little empirical data to strengthen their theories on ambidexterity (Raisch et al., 2009). As a result, various large-scale empirical studies have been conducted, and they provide evidence of the positive correlation between ambidexterity and long-term survival. He and Wong (2004) conducted a survey of innovation behaviours and performance of product-oriented companies, and found support for the hypothesis “There is a positive interaction effect between explorative and exploitative innovation strategies on firm performance”. Gibson and Birkinshaw (2004) did a study at the business unit level by asking a large sample of individuals from 41 different companies to rate the business units they work in. They hypothesized that “The higher the level of ambidexterity in a business unit, the higher the level of performance”, which they found support for. Lubatkin et al. (2006) focused their attention on small to medium-sized enterprises (SMEs) and they use multi source survey data to find support for their hypothesis “The extent to which SMEs pursue an ambidextrous orientation is positively associated with their subsequent relative performance.”

It is important to note that if a company does not wish to achieve long-term success, ambidexterity may not be essential. An example could be a company selling Justin Bieber t-shirts. Such a company grabs an opportunity to sell a wildly popular product without spending money on research and development (R&D). If they had spent resources on R&D this may have led to new products they could profit from once the teen idol loses his popularity. At some point down the road, they will not be able to sell more t-shirts and may have to shut down their business. But such a company may view the downside of not having a future revenue stream due to exploration to be balanced out by the opportunity to profit quickly from a product that will be in high demand for a short period of time.

One should keep in mind that ambidextrous organizations can also be unsuccessful. Tushman and O'Reilly (1996) used the two large American companies IBM and Sears as an example to illustrate this point. In the 1990s, both organizations pursued exploration and exploitation simultaneously, but were facing serious losses in market shares and profits. Tushman and O'Reilly (1996) accredited this to the fact that both companies had cultures that were inward looking and resistant to change due to previous successes. The two authors summarized their article by stating the importance of organizational culture, linking it to short term success and long-term failure if not managed correctly. Other authors have questioned the predominant view that ambidexterity gives performance benefits. Lin et al. (2007, p.1645) sought to explore the theoretical boundaries of ambidexterity. They found support for their hypothesis that “an ambidextrous formation of alliances benefits large firms, and a focused formation of either exploratory or exploitative alliances benefits small firms”. Other findings also indicate that the ambidexterity approach may need to vary with different firm sizes and industry environments (Park et al., 2002, Van Looy et al., 2005).

The claim that small companies may not benefit from an ambidextrous approach is reasonable. The way we see it, some companies may not have the extra resources to allow slack and exploration in their organization, and must therefore only focus on

exploitation. Examples of such companies can be small start-ups with few people and limited funding. Our opinion is that such companies can still survive in the short-term, but must eventually include exploration in their operations if they wish to be a long-term player in the market. By claiming this, we indirectly agree that not all companies are ambidextrous. A company might not be ambidextrous because they do not have the resources to focus on both exploration and exploitation, but this can also be because they can rely on external actors to supply either exploration or exploitation.

Companies have the option of relying on external actors to perform exploration and exploitation activities for them, external actors being other companies in their organizational network (Gupta et al., 2006). A short discussion of the organizational network is required to understand this statement. Håkansson and Snehota (1989, p.187) claimed that "No business is an island", and by that they mean that an organization's environment is constituted by a set of other active organizations, and that the result of interactions and exchanges between the different organizations creates relationships (Håkansson and Snehota, 1989). This means that some companies can achieve ambidexterity by specializing on either exploration or exploitation, and outsourcing the remaining activity to other companies in their network (Gupta et al., 2006).

Although some companies may not wish to, or benefit from, being ambidextrous, the consensus in organizational literature points towards the fact that ambidexterity results in better performance in the long run. This consensus will be a basis for our discussion, and we will now proceed to an explanation of the strategy process and organizational roles. This will serve as a starting point for our explanation of how a company can achieve ambidexterity.

3.3 Achieving ambidexterity

The basis for achieving any organizational goal is to create a plan, or a strategy, that describes the steps that need to be taken in order to achieve the goal. This subchapter will describe the strategy process that serves as the basis for achieving any goal, be it ambidexterity or anything else. We will also describe the different roles within an organization, and elaborate on which roles are viewed as most responsible for achieving ambidexterity. Finally, we will discuss how ambidexterity can be achieved in a company with a value shop configuration.

3.3.1 Ambidexterity as a result of a strategy process

Organizational ambidexterity can be achieved by pure chance, or as the result of a devised strategy. According to Mintzberg and Waters (1985), strategies can be either deliberate or emergent. This means that if an organization has a clear goal of achieving ambidexterity, they must decide which type of strategy process they wish to use.

Deliberate strategies often include an explicit and documented plan of action, and they provide a clear sense of direction, commitment to the course of action, optimal resource allocation and easy coordination of all strategic initiatives into a coherent pattern (Mintzberg and Waters, 1985).

An emergent strategy, on the other hand, comes into existence *along the way*. Strategies will emerge from exploring and learning and thus the strategy will be shaped in an iterative process of *thinking* and *doing* (Mintzberg and Waters, 1985). An emergent strategy allows an organization to make use of opportunities as they emerge, and to learn by experimenting, running pilot projects and trial runs. An emergent strategy provides managers with open minds, and avoids a situation where the organization is locked in a pre-set course of action (Mintzberg and Waters, 1985). Figure 3.1 shows the process of creating strategies.

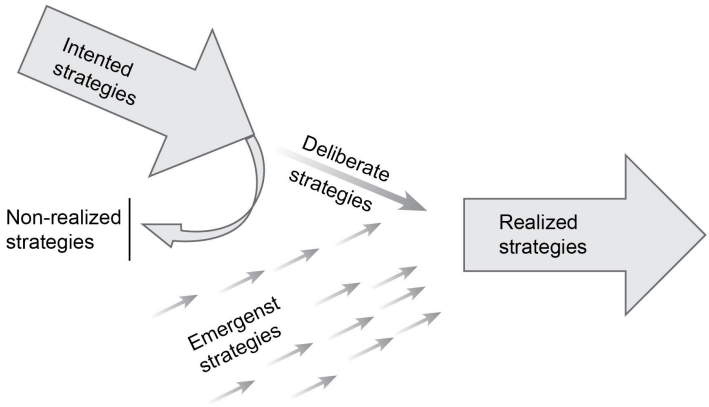


Figure 3.1 Strategy formation (Mintzberg and Waters, 1985).

At first glance, one can be tempted to draw parallels between deliberate and emergent strategy formation and exploration and exploitation. One can compare exploration to the emergent strategy formation, due to the focus on experimentation and opportunism. Exploitation can be compared to deliberate strategizing, since this type of strategy formation is focused around optimization and direction. But from our understanding, both exploration and exploitation have to do with learning and innovation, albeit at different dimensions. This may mean that both activities can more easily be accomplished in an organization that strategizes emergently. Mintzberg and Waters (1985) explained that deliberate and emergent strategies created a tension, and that no strategy was purely deliberate or emergent, but a mix of both.

Now that we have explained how ambidexterity can arise from a deliberate or emergent strategy process, we will discuss which roles in the organization that are responsible for carrying through the strategies to achieve ambidexterity.

3.3.2 The roles responsible for ambidexterity

According to the pioneers within the field of ambidexterity, Tushman and O'Reilly (1996), managers acts as architects of their organizations, and are responsible for designing their units in ways that best fit their strategic challenges. Recent papers have added that management at all levels has a responsibility for achieving ambidexterity (Andriopoulos and Lewis, 2009, Probst et al., 2011).

The classic view of a manager was described in the first half of the 20th century by Henry Fayol as a person that plans, organizes, commands, coordinates, and controls (Mintzberg et al., 1976). His view was later challenged by Henry Mintzberg, who portrayed managers in terms of a typology of roles instead, and concluded that the manager's job consisted of many brief and disjointed episodes with people inside and outside the organization (Mintzberg et al., 1976).

Kotter (2001) provides a more recent definition of management. In his opinion, management has to do with coping with complexity, and good management brings order and consistency to key features, like quality and profitability of products. Managers tackle complexity by planning and budgeting, and they use organizing and staffing to reach their goals. Kotter (2001) makes a point of separating the concept of leadership from the concept of management, stating that leadership is about coping with change. In order to lead an organization through change a leader must set a direction by developing a vision and a strategy. A leader aligns people by communicating a vision to those who can understand the it, and commit to achieving the new strategies. A military analogy can be used to emphasize this point: During peace an army can survive with good management coupled with good leadership at the top. In war times however an army needs leadership at all levels (Kotter, 2001). For the sake of simplicity, in this thesis we will use the term manager for all levels of management independent of the types of tasks they do.

Although the idea of ambidextrous organizations is far from novel, the concept of management in ambidextrous organizations has not been widely elaborated on (Rosing et al., 2011). In order to achieve ambidexterity, a manager must embrace the tensions between the old and the new and encourage a state of creative conflict (Tushman et al., 2011). Managers must balance current and new activities, combine short-term and long-term thinking and create engaging visions while at the same time staying focused on execution (Probst et al., 2011).

Today’s scholars have built a consensus around that fact that managing the paradox between exploration and exploitation is a responsibility not only of top management but also across all organizational levels (Andriopoulos and Lewis, 2009, Probst et al., 2011). According to Probst et al. (2011) an organization needs leaders that embrace ambidexterity and that have an ambidextrous mind-set. This applies to all leaders from top management, middle management and lower level management to managers of support functions such as human resource (HR) management, procurement management and infrastructure management. Figure 3.2 illustrates the view that Probst et al. (2011) presented on which roles are responsible for ambidexterity.

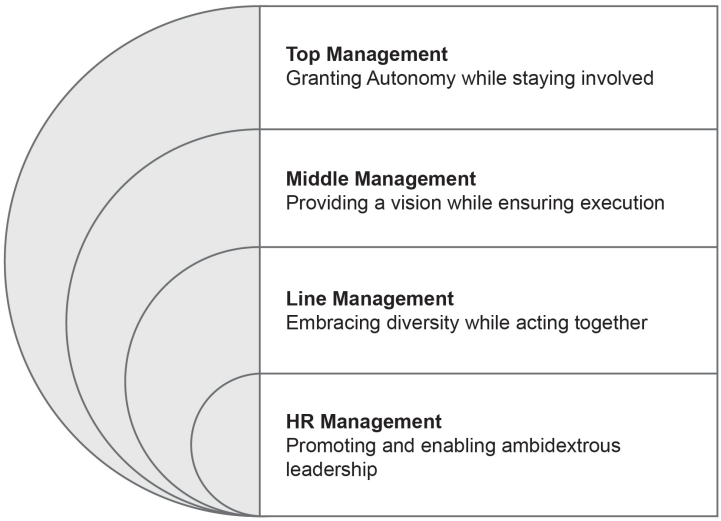


Figure 3.2 Ambidextrous leadership (Probst et al., 2011).

In a paper concerning ambidextrous leadership, Probst et al. (2011) discussed the related challenges for all management levels involved in the process. The two authors claimed that top management were responsible for granting their subordinates enough autonomy to explore opportunities, while at the same time mobilizing resources to support new business activities (Probst et al., 2011). The responsibility of middle management is to lead new business activities by creating engaging visions, and staying focused on the execution at the same time (Probst et al., 2011). Line managers contribute with different complementary capabilities, such as task, expertise and social capabilities. They must embrace these differences and act together in order to achieve ambidexterity (Probst et al., 2011). HR managers help achieve ambidexterity by focusing on three people-related domains: hiring and selecting the right people, training and development of staff and performance appraisal and reward systems (Probst et al., 2011).

Although the Probst et al. (2011) model for ambidextrous leadership seems logical, we believe that it is more fitting for a product-oriented company than a value shop. We have created our own model for ambidextrous leadership that we believe describes the roles responsible for ambidexterity in value shops better. The layers in our model consist of the CEO at the top, then top management, middle management and project management.

We believe that the CEO is important in a value shop, due to the fact that the rest of the management structure is not as stable as it is in product-oriented companies. Employees are assigned to new project managers with every new project, which results in changing management structure based on the in and outflow of projects. The CEO may have a more important role as a symbolic leadership figure that unites the company when the rest of the management structure fluctuates. We have therefore placed the CEO at the top of our own ambidextrous leadership model. The next step of our ambidextrous leadership model is top management, because it seems logical this level of management must exist in any type of company, regardless of the value configuration. After top management comes middle management, also an expected layer of management in any organization of a certain

size. The middle management in value shops often manages a department with knowledge workers of the same background. Their responsibility is to act as resource managers, and make sure that their employees are sourced to different projects.

Value shops often operate as consultancy companies, and try to keep costs down by having a small HR department, often consisting of only one person. Therefore we have removed the HR management layer from the model, and substituted it with project management instead. Value shops often have project-based groups consisting of multidisciplinary teams. Project managers in such groups are responsible for getting a project done on time, and are therefore responsible for balancing exploration and exploitation in each project. Our model for ambidexterity is illustrated as Figure 3.3 below.

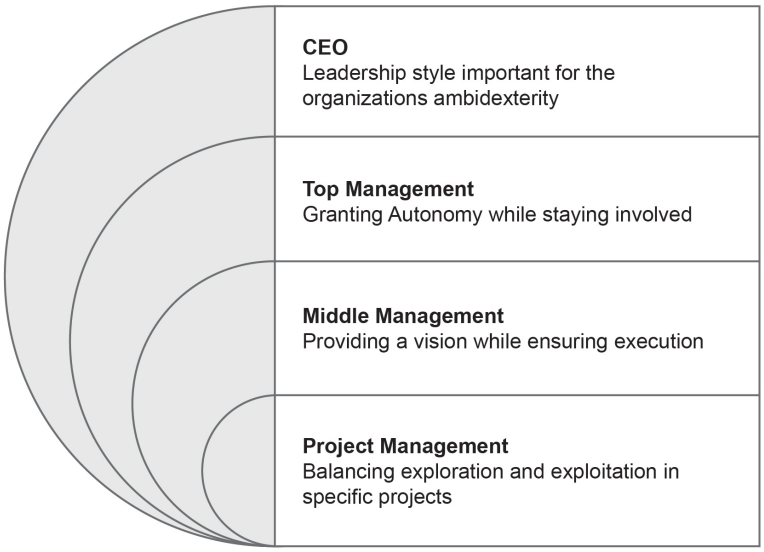


Figure 3.3 Ambidextrous leadership in value shop organizations.

We have discussed the roles that are responsible for ambidexterity, and made our own model for ambidextrous leadership, inspired by Probst et al. (2011) model. In our opinion the CEO in a value shop is of great importance, and the project managers are responsible for balancing exploration and exploitation in specific projects. Although there is a consensus that all levels of management are responsible for achieving ambidexterity, there are few specific frameworks that describe how the responsibility is distributed among the different levels of management. This is an interesting question that will eventually lead out to a proposition in subchapter 3.5.4. Before we get to the specific approaches to ambidexterity we will continue this chapter with a discussion on how ambidexterity can be achieved in a value shop.

3.3.3 Achieving ambidexterity in value shops

In the previous subchapter we explained how we created our own model for ambidextrous leadership that depicted the different roles in a value shop organization. In this subchapter we will discuss how ambidexterity can be achieved in value shops, and if the paradox of exploration and exploitation is different in such companies compared to product oriented companies. We will discuss how ambidexterity may be

more difficult to understand in companies with a value shop configuration, and introduce a proposition related to the value shops relationship with its customers.

Jasmand et al. (2012) emphasize that the concept of ambidexterity is not limited to certain companies, such as those product-oriented physical goods. They argue that ambidexterity can easily be used to describe the need for handling conflicting immediate and long time profit goals in any organization. The specific problems may be different in service companies as opposed to product-oriented companies, but the fundamental dilemma of balancing two contradictory goals the are same (Jasmand et al., 2012). Most authors that discuss ambidexterity in different types of organizations use the term service sector, but since we have focused on a subsection of the service sector, the value shop, we will use this term from now on. Ambidexterity in value shops might not be as easy to understand as in companies selling products that have been created in a value chain process, or product-oriented companies as we have decided to name this type of company. Product-oriented companies can easily separate the process of improving existing products and inventing completely new ones, value shop companies cannot.

There is a clear separation between process innovation and product innovation in the literature on ambidexterity (Marabelli et al., 2012). Process innovation relates to production and delivery processes of a good or service, and is mostly an internal innovation. Product innovation is externally driven by customer demand and market needs (Marabelli et al., 2012). Just like product-oriented companies, value shops need to improve and reduce the cost of their services, or develop new services, to remain competitive. The biggest difference between exploration and exploitation in value shops and product-oriented companies is that separating process innovation and product innovation in the service sector considerably more difficult.

A value shop's products are the services they offer, which means that the product is often tightly linked to the process that consists of creating and delivering the service (Miles, 1996). An example can be when a consulting company creates a new strategy for a customer. The product is the new strategy, and the process is the creation of the new strategy. The production and delivery of the strategy is also a part of the product. This makes the difference between process innovation and product innovation in the service sector ambiguous (Miles, 1996). Thus, applying the theories developed for product-oriented companies to value shop organizations requires consideration as to whether separating process innovation and product innovation is necessary.

Jasmand et al. (2012) do not argue for a need to separate process innovation and product innovation. They simply point out that value shops have two conflicting goals: (1) An inherent goal of selling as much as possible per sales staff, because a salesman spending less time per sale generates a larger revenue for the company. (2) A need to provide service to customers, both in the process of selling and support later on. Customer service is generally considered to increase customer satisfaction, and it increases the probability of repeat sales and sale of additional products or services, thus a way to get to goal (1) (Jasmand et al., 2012).

By pursuing goal (2), the company will have to spend resources on activities that may not pay off immediately, and thus conflict with goal (1), but may ultimately lead to increased sales. This is basically the paradox of ambidexterity, where the pursuit of either goal reduces the ability to reach the other, but both must be attained to reach the overall goal. One may argue that the principles of ambidexterity are not exactly the same for product-oriented companies and value shop companies, as one can study organizations at micro level and find many differences in for instance organizational structure and daily tasks. But such differences will surely be present between individual product-oriented companies as well. The main principles are the same for value shops as for other types of companies. The value shop organization described by Jasmand et al. (2012) has to balance short term and long-term profit goals to reach an overall goal of success, which is the same principle that applies to product-oriented organizations.

The two conflicting goals that Jasmand et al. (2012) describe are related to a service organization's relationship with it's customers. Marabelli et al. (2012) also draw attention to customer relationships when they state that product innovation is driven by customer demand. Miles (1996) claim that the difference between product and process innovation is ambiguous, which could mean that process innovation is also driven by customer demand. It seems as though value shops achieve explorative and exploitative innovation through the projects they get through their customers, because the customer projects directly affect what the value shop employees work with. Before we present a proposition that can help us understand more about value shops and their customers we will elaborate on this subject.

If a customer has a project that involves a great deal of exploration for the value shop, it would only seem natural that the value shop, is explorative while working on the project. An example can be if a customer wants a special type of IT system that a value shop has not created before. If the value shop wins the tender and takes on the project, the people working on the project will be working with exploration. If a customer wants a standard IT system that a value shop has created before the project will involve more exploitative activities, because the value shop is essentially working with, and learning to do, what they already know how to do better. We find the possibility that value shops achieve ambidexterity through their customer relationships interesting, and we have created a proposition that can help us understand more about this. The proposition reads:

> Value shops achieve ambidexterity through their relationships with new and existing customers.

We must emphasize on the point that we do not consider the customer relationship to be an external approach in achieving ambidexterity. We do not focus on how the value shop comes in contact with its customer, how they win tenders by competing in the market or how they achieve ambidexterity in *collaboration* with the external customers. Rather we focus on how value shops achieve ambidexterity *through* their customers, by looking at what happens when the tender is won and the project is internalized in the value shop. Since the relationship with the customer is built after the value shop has internalized the project we view the process as internal.

In this subchapter we have discussed the general strategy process as a basis for achieving ambidexterity, the roles we believe are responsible for making this happen, and how ambidexterity may play out in value shops. We have also presented a proposition that addresses how value shops can achieve ambidexterity through their customers. From this point we will continue to explain approaches a company can use to achieve ambidexterity, but from here the approaches will be presented in a more structured manner. We will start by explaining how we distinguish external and internal approaches, then present the external approaches briefly before we continue with an in-depth description of our focus area: the internal approaches.

3.4 Structuring the approaches to ambidexterity

In order to present the approaches to ambidexterity in a orderly fashion we have decided to categorize them in two main approaches, and then focus more specifically on the internal approaches. The reason we focus on internal approaches is because of our case study design, and the fact that our unit of analysis comprise of one company. Our design makes it difficult to analyse the external approaches, because that would require a larger scope and more resources.

The two main categories we have created are called external and internal approaches. External approaches are achieved by activities performed outside of the organizational boundaries, and our definition of organizational boundaries will be presented further down in the text. We will continue with a short presentation of the external approaches before we introduce the internal approaches. The reason we present the external approaches first is because the internal approaches are more important to our thesis, and will be more thoroughly discussed.

External approaches entail looking outward beyond the organizational boundary to achieve ambidexterity. Rosenkopf and Nerkar (2001) claimed that companies had a tendency to look inwards to find solutions to the challenges they encounter, by using the knowledge that already exists in the organization. They called for a new perspective that went beyond local search, and included the use of knowledge that could be found externally. They proposed a model that included both internal and external search approaches, and explained the difference between the two with the following model.

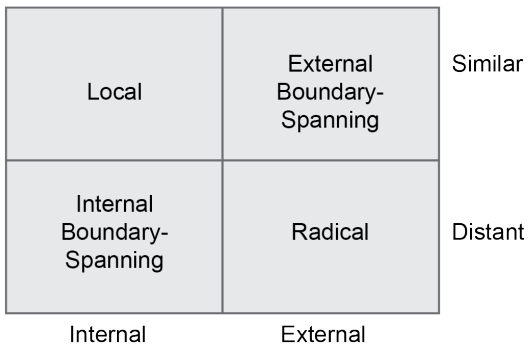


Figure 3.4 Organizational boundary spanning (Rosenkopf and Nerkar, 2001).

In Figure 3.4, four types of innovation are generated by determining whether the technology used to innovate is external or internal to the company, and whether the technology is similar to what the company already uses or distant (Rosenkopf and Nerkar, 2001). Local innovation has to do with using technology that exists within the firm, and radical innovation builds upon technology that resides outside of the firm (Rosenkopf and Nerkar, 2001). Internal boundary-spanning innovation integrates technology from different domain, but within the same organization, such as from a different business unit. External boundary-spanning innovation integrates technology from its own technology domain, but from other organizations (Rosenkopf and Nerkar, 2001). Both radical and external-boundary spanning approaches involve innovating by going outside of the organizational boundaries. Rosenkopf and Nerkar (2001) have a techno-centric approach in their description of external and internal approaches, but we believe that this model can relate to innovation that is not technology related as well. We therefore choose to interpret the model in terms of innovation in general, and view local innovation as something that has to do with using knowledge or technology that the company already has. Radical innovation is seen as using knowledge or technology that resides outside of the organizational boundaries. Internal and external boundary spanning activities have to do with using knowledge or technology that is internal but from a different department, or external but similar to the department, respectively. We will focus on the innovation activities that are carried out internally, and to be clear about what “outside” of the organization means a discussion of organizational boundaries follows.

Ambidexterity can be achieved outside of the organization’s boundaries by external approaches, or inside of the organization by internal approaches. Since the focus of our thesis is a single company, we will restrict ourselves to focus on what happens within the boundaries of the organization. Santos and Eisenhardt (2005) define the organizational boundary as a demarcation between the organization and its environment. An organization is according to the Oxford Dictionary “an organized group of people with a particular purpose, such as a business or government department” (Oxford Dictionary, 2013). Anyone who is not a member of the organization is therefore considered as a part of the organizations environment. But it can be difficult to draw a clear line, especially for companies that collaborate closely with actors in their network. Without going deeper into the discussion of what constitutes a organization, we will present a figure inspired by De Wit and Meyer (2010) to explain how we see the organization, and where we draw the line. We have made adjustments to De Wit and Meyers figure to make it representable for a organization with a value shop configuration. Figure 3.5 describes the different levels of organization where a strategy can be implemented.

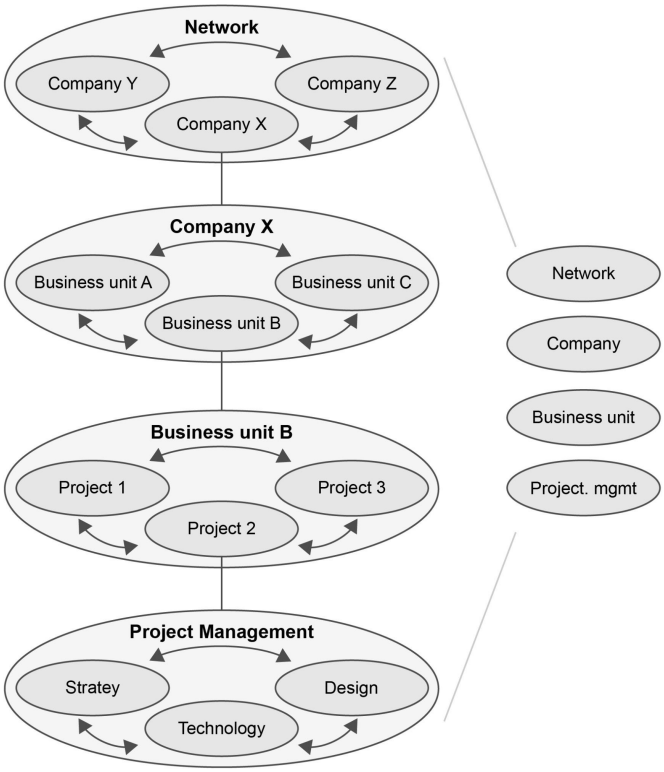


Figure 3.5 The levels of strategy (inspired by De Wit and Meyer, 2010)

We see ambidexterity as a result of a strategy process, and believe that a strategy can be created and implemented at different levels in an organization. For a value shop organization strategy can be implemented at the project group, business unit and company level. It can also be implemented at the network level. From our theoretical perspective a group of companies can have a strategy together, by forming an alliance, partnership and network. In order to restrict the scope of this thesis we will only focus on what we consider to be inside the company boundaries, which is the company, business unit and project group level. Network companies are a level over the organizational boundary, and considered to be external to the organization. Figure 3.6 show which areas we have chosen to focus on.

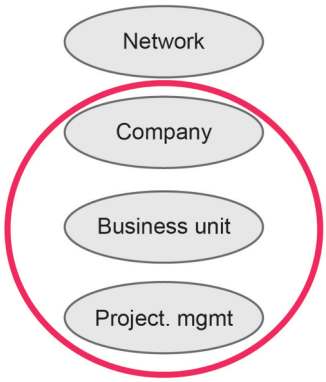


Figure 3.6 Our focus.

External strategies for achieving ambidexterity have not received a lot of attention in the field of organizational ambidexterity, yet research on exploration emphasizes the importance of external acquisition of new knowledge (Eisenhardt and Martin, 2000). Using external strategies for ambidexterity opens the possibility of having tasks that a company is unable to perform in-house performed by external actors. This type of approach involves ambidexterity at a network level, as the company appoints external actors explore or exploit for them, thus eluding having to deal with the paradox internally.

We have decided to disregard external approaches in this case study because of our case study design. We use a single organization as our unit of analysis, and we must therefore exclude all other types of approaches others than those we can research within the organization and our time frame. We will present some external approaches in the following subchapter, but we will not go into great detail. Figure 3.7 shows the boundary between external and internal approaches to ambidexterity.

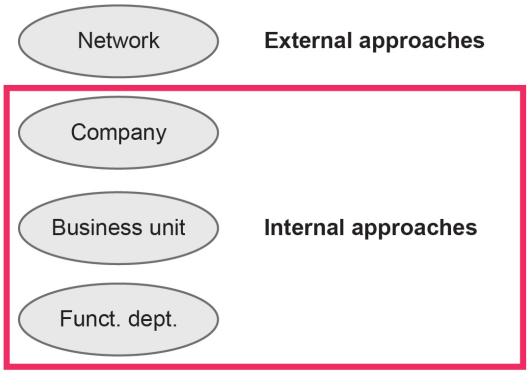


Figure 3.7 External and internal approaches.

3.4.1 External approaches

In this subchapter, we will describe three external approaches to ambidexterity: alliances, outsourcing, and mergers and acquisitions. We will describe the nature of each approach, and why they can be considered to be external.

Alliances are the first external approach we will cover, as it has been shown that relationships between organizations can be seen as a type of exploration and exploitation process (Rothaermel and Deeds, 2004). Any company can have a variety of alliances, and the alliances can be of both of explorative or exploitative nature (Gupta et al., 2006). Organizations can enter alliances to exploit complementary resources that their partners have, while at the same time promoting stability and reducing risk (Lin et al., 2007). Alliances can also be of use for exploring new markets and technologies, and adapting to paradigm shifts in the industry (Lin et al., 2007). In addition to this alliances can be used to obtain new knowledge (Grant and Baden−Fuller, 2004). It has been shown that strategic alliances (Lin et al., 2007) can facilitate both exploitative and explorative knowledge processes. Organizations enter an alliance to explore new opportunities or exploit existing opportunities, and several studies have shown evidence that there is a positive correlation between an organization's ability to be innovative and it’s alliances (Rothaermel and Deeds, 2004).

Larger companies benefit from an ambidextrous formation of exploratory and exploitative alliances, whereas small firms benefit more from a focused formation of *either* exploratory *or* exploitative alliances (Lin et al., 2007). Also, a company that has an ambidextrous formation of exploratory and exploitative alliances will tend to exhibit better performance in an uncertain environment, and a firm with a focused approach will tend to have better performance in a stable environment (Lin et al., 2007).

Outsourcing is the second type of external approach to ambidexterity that we have found. An organization can externalize both exploration and exploitation by outsourcing activities (Baden-Fuller and Volberda, 1997), which means that organizations can be ambidextrous by outsourcing either explorative or exploitative processes to other companies. Outsourcing can be defined as "the significant contribution by external vendors in the physical and/or human resources associated with the entire or specific components of the IT infrastructure in the user organization" (Loh and Venkatraman, 1992, p.226), or alternatively as "the reliance on external sources for product-oriented components and other value-adding activities" (Lei and Hitt, 1995, p.836).

Weigelt and Sarkar (2012) argue that problems related to exploitation benefit from being outsourced, because they are often divisible into separate sub-problems. Organizations can use outsourcing take advantage of the differences in production efficiencies of other organizations that are specialized and have economies of scale (Weigelt and Sarkar, 2012). The negative effects of outsourcing can be that companies can lose their core capabilities. This can happen if they outsource to many of their most business critical activities (Gilley and Rasheed, 2000). According to Weigelt and Sarkar (2012) problems related to exploration and adaptability get compromised if companies outsource, because a common organizational language is required to solve such problems. The more a company outsources, the more difficult it is to coordinate internal and external problem solving, and thus the company becomes less adaptable (Weigelt and Sarkar, 2012).

Another external approach for achieving ambidexterity is to acquire or merge with other companies. According to Puranam and Srikanth (2007), an organization can renew their knowledge base through acquiring, or merging with, innovative firms. Mergers and acquisitions can lead to ambidexterity by reducing overall costs and can serve as a platform for economic growth and innovation (Nemanich and Vera, 2009). But since this approach involves internalizing external resources, it can also be viewed as an internal approach (Raisch et al., 2009). We choose to place mergers and acquisitions in the category of external approaches because it has to do with looking outside the organizations boundaries for knowledge. Yet, we acknowledge that the moment the external company is acquired and the integration process begins, or when the process of merging two companies start, these approaches can be viewed as internal. Now that we have provided a superficial explanation of the external approaches to ambidexterity, we will in the next subchapter go into a more detailed description of the internal approaches. We have also made a short summary of the external approaches in Figure 3.8**.**

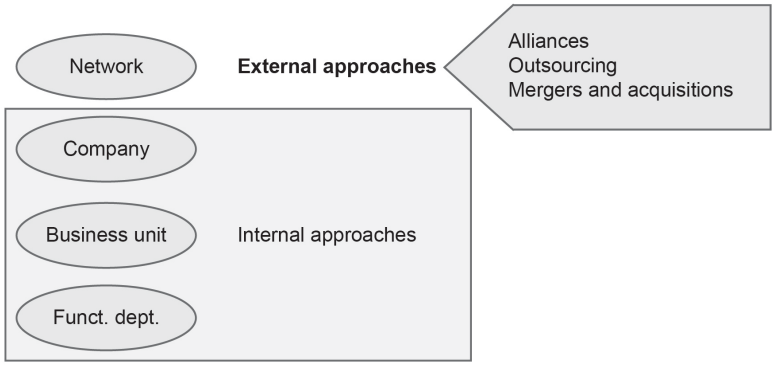


Figure 3.8: External approaches to ambidexterity

3.4.2 Internal approaches

In the previous subchapter, we described external approaches to ambidexterity, and explained why we will not focus on these approaches in our thesis. This subchapter provides an overview of the internal approaches, and they will be elaborated on in subchapter 3.5. The internal approaches to ambidexterity are central to our thesis, and they will be used in our discussion in chapter 7.

There is no consensus on how to structure the internal approaches to ambidexterity, so we have developed our own structure in this thesis. We have chosen to create four categories of internal approaches to ambidexterity; architectural approaches, contextual approaches, combinatorial approaches and management solutions.

Our four categories are presented roughly in the same order that the themes they are related to have arisen in the organizational theory. Ambidexterity was first presented as a property that could be achieved by architectural approaches. Architectural approaches focus on the use of organizational structure to enable companies to reap the full benefits of both exploration and exploitation (Tushman and O'Reilly, 1996, Gupta et al., 2006, Lee and Choi, 2010). A while later the concept of contextual approaches was presented, as a counterweight that could balance out the focus on architectural approaches. Contextual ambidexterity utilizes behavioural and social means to achieve the same effect (Gibson and Birkinshaw, 2004, Lee and Choi, 2010).

Many scholars agree on the two main approaches to ambidexterity are architectural or contextual approaches (Gibson and Birkinshaw, 2004, Jansen, 2005, Andriopoulos and Lewis, 2009). Other scholars pointed out that one should not see the two approaches as separate but strive to combine them, and presented approaches that were a combination of architectural and contextual, which are the basis for the combinatorial approaches. Management approaches, which is our last category, has since been given attention as an important factor to consider in the approach towards ambidexterity (Chang and Hughes, 2012). It is important to emphasize on the fact that the different categories do not have strict demarcations, and in some instances one approach can also fit into another category than the one it is placed in. The categorizations of the approaches serve more as a way to structure the literature on the topic, rather than a literal categorization of the approaches.

We have created metaphoric visualizations of our approaches to help the reader understand what we mean by our different categories. Ambidexterity is visualized as a house built of bricks and mortar. The four approaches are visualized in construction terms to emphasize how the approaches must be utilized to build the house of ambidexterity. We have illustrated architectural approaches as bricks, contextual approaches as a bucket of mortar, the combination of architectural and contextual approaches as a brick wall, and management approaches as a builder. In order to build a house one needs bricks and mortar. If we imagine architectural approaches to be the bricks, and contextual approaches to be the mortar we understand that the two approaches are the two elements we need to build the house. The two approaches must be used in combination for the house to be sturdy, and the combination of bricks (architectural approaches) and mortar (contextual approaches) is an approach in itself. But who will be responsible for combining the bricks and mortar to build the house? This is where the builder comes into action. The builder (management approaches) combines (combinatorial approaches) the bricks (architectural approaches) and mortar (contextual approaches) to build a house (ambidextrous organization). The illustrations and their relation to each other are presented in Figure 3.9:

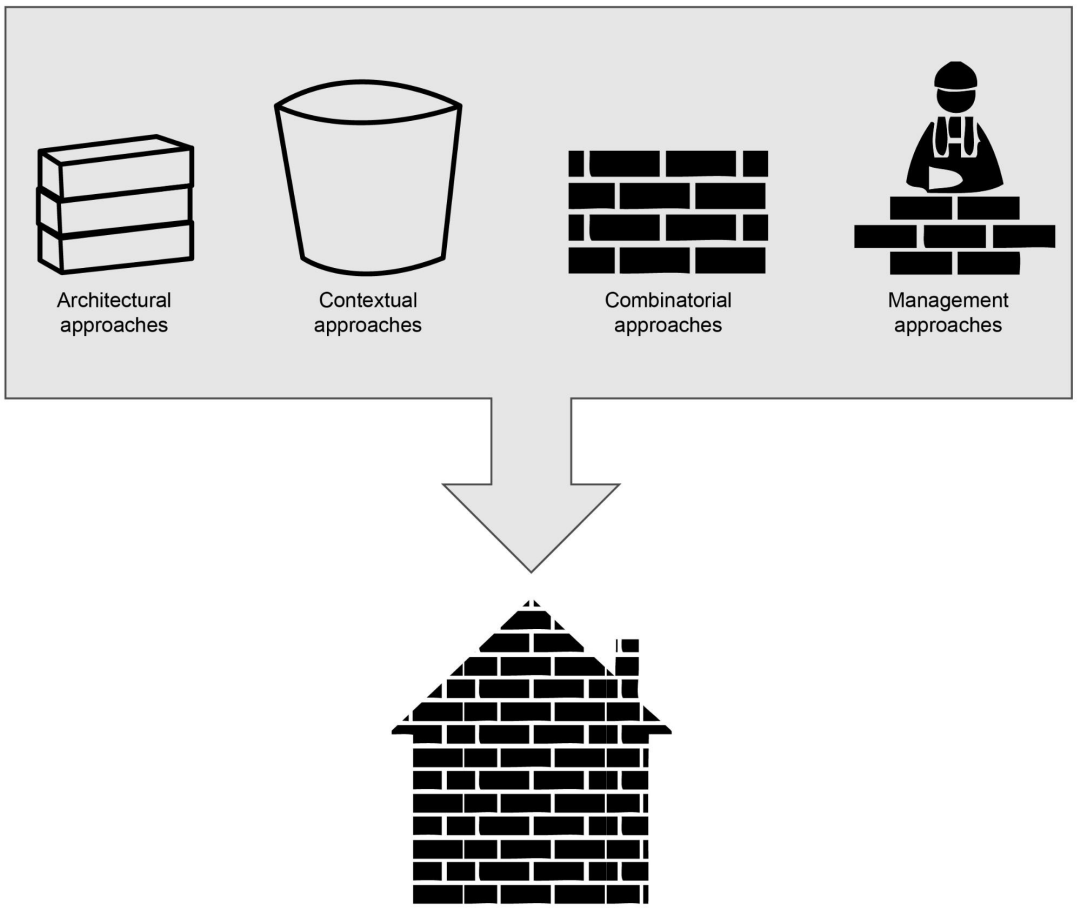


Figure 3.9 The four approaches to ambidexterity

In the following subchapter, we will examine the four internal approaches to ambidexterity in greater detail. These approaches serve as the main foundation for our analysis and discussion in chapters 7 and 8.

3.5 The four internal approaches

In subchapter 3.4, we described both external and internal approaches to ambidexterity, and argued for our focus on internal approaches. In this subchapter, we will examine the four internal approaches to ambidexterity, and present the rest of our propositions. All propositions will be repeated in subchapter 3.6, and will be used in the discussion in Part III. Figure 3.10 gives an overview of the four internal approaches to ambidexterity, and from here they will be presented in separate subchapters, together with a discussion of their indicators.

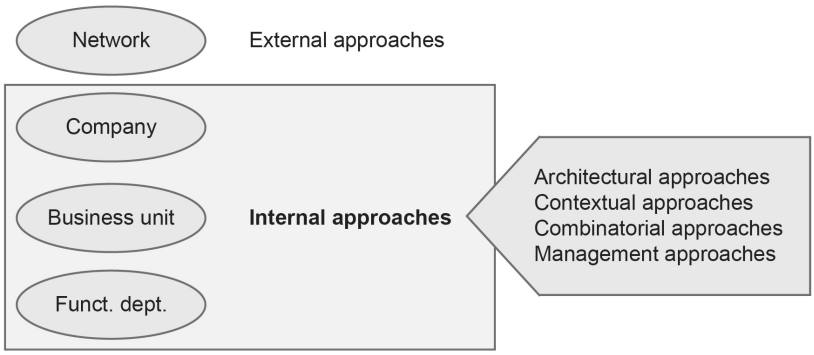


Figure 3.10: Internal approaches to ambidexterity

3.5.1 Architectural approaches

Architectural approaches to ambidexterity imply dual structures within an organization that let employees focus on either exploration or exploitation. More specifically architectural ambidexterity is defined as the subdivision of tasks into distinct organizational units to develop an appropriate environment for ambidexterity (Raisch et al., 2009). This effectually assigns employees to work with either explorative or exploitative activities in permanent, separated groups, or at different times. Theories of architectural ambidexterity propose dual structures and strategies, differentiating efforts to focus on either exploratory or exploitative innovation (Gupta et al., 2006). Structural ambidexterity and differentiation are other terms used to describe the same concept as architectural ambidexterity (Gibson and Birkinshaw, 2004, Raisch et al., 2009, Simsek et al., 2009, Andriopoulos and Lewis, 2009). We illustrate architectural approaches as a stack of bricks to emphasize on the fact that these approaches are centred on physical structures.

One way of approaching architectural ambidexterity is by spatial separation (Tushman and O'Reilly, 1996, Gibson and Birkinshaw, 2004, Andriopoulos and Lewis, 2009). Spatial separation is achieved by having separate business units that focus on either exploration or exploitation (Puranam et al., 2006). Tushman and O'Reilly (1996) described ambidextrous organizations as having established project teams that function as structurally independent units pursuing either exploration or exploitation. These units have their own processes, cultures, and structures, but are integrated into the existing management hierarchy. Units responsible for exploration are smaller, more decentralized and more flexible than the units responsible for

exploitation (Tushman and O'Reilly, 1996, Benner and Tushman, 2003). Benner and Tushman (2003) explained that the ambidextrous organization designs are composed of highly differentiated but weakly integrated business-units. Spatial separation was one of the first examples of architectural approaches presented in the ambidexterity literature, the description clearly coincides with the understanding of a firm as a product-oriented company with a small R&D department and a larger production unit. A spatial architectural configuration helps organizations maintain both exploratory and exploitative competencies, which are necessary to handle the ever-changing market demands and business opportunities (Gilbert, 2005).

Tushman et al. (2011) discussed the challenges of having separate innovation units beside regular business units, and the how to deal with the tensions that would arise between the demands of innovation units and regular business units. They stressed the importance of keeping these tensions at the management level. Two approaches for keeping the tensions between innovation- and business units at the management level are presented by Tushman et al. (2011) as the hub-and-spoke model and the ring-team model. The hub-and-spoke model involves that the heads of the business and innovation units only reporting to the Chief Executive Officer (CEO), and not to each other. The CEO manages each business unit separately, and each unit is very reliant on the CEO. The ring team model brings all business unit leaders together, and the decisions on resource allocation are made collectively. Tushman et al. (2011) also emphasize the importance of embracing inconsistency - by *not* measuring the business- and innovation units along the same metrics. Task partitioning is an architectural approach, which is very similar to spatial separation. Instead of splitting up business units dependent on the nature of their business operations, be it innovation or production, task partitioning has to do with individuals performing either explorative or exploitative operations within the same business unit (Gibson and Birkinshaw, 2004). Due to strong similarities we believe it can be viewed as spatial separation of individuals instead of separation of business units.

Temporal separation, as task partitioning, allows for both exploration and exploitation to be pursued within the boundaries of the same business unit. But, contrary to task partitioning the individuals are allowed to perform both explorative and exploitative activities, but at different points in time (McDonough and Leifer, 1983, Gibson and Birkinshaw, 2004, Andriopoulos and Lewis, 2009). A business unit can switch between exploratory and exploitative activities with different time intervals during the day, or switch between exploration and exploitation over a week or month. Gupta et al. (2006) also described a type of differentiation that is temporal rather than structural. They called it punctuated equilibrium, and explained that it entailed having companies cycle through periods of exploration and exploitation. They claimed this to be a radically different mechanism than ambidexterity, but because of the similarity to temporal separation we choose to categorize punctuated equilibrium as an architectural approach to ambidexterity. In our understanding the term Gupta et al. (2006) called punctual equilibrium is similar enough to what the other scholars (Gibson and Birkinshaw, 2004, Andriopoulos and Lewis, 2009) have described as temporal separation that we can use the term temporal separation to describe them both.

Another architectural approach used to achieve ambidexterity is formalization and interdepartmental connectedness; both ways of structuring an organization. Formalization is defined as the degree of which rules, procedures, job instructions and communications are formalized, written down or kept in records (Jansen et al., 2006). This adjective describes to which extent a firm's structure exhibits mechanistic properties. If an organization focuses heavily on standardized processes, routines and written rules, it is likely that efficiency and improvement are reinforced. An organization with a large degree of formalization will most likely focus on improving and refining existing activities. This is linked to exploitation (March, 1991) and therefore a high degree of formalization implies a pursuit of exploitative innovation (Chang and Hughes, 2012). Still, it is important to note that some companies can generate explorative innovations even though they have a high level of formalization. Jansen et al. (2006) conducted a study on large companies and found no evidence of a negative effect between formalization and explorative innovation. There is also support for the view that mechanistic structures can support the use of entrepreneurial capital (Kang and Snell, 2009). Still, informal mechanisms can inhibit organizations from making the most of their exploratory activities because their structural conditions do not effectively integrate innovations into the firms existing activities (Chang and Hughes, 2012).

Interdepartmental connectedness has to do with connecting unrelated parts of the organization together through a structure that encourages informal communication and knowledge sharing (Chang and Hughes, 2012). This increases the opportunity for informal knowledge sharing by exposing individuals to small, unrelated pockets of knowledge from across the company (Atuahene-Gima, 2005, Jansen et al., 2006). Connectedness helps employees gain knowledge that betters their current understanding of technologies, products and processes, which in turn can lead to exploitative innovation (Jansen et al., 2006). Also, explorative innovation can be achieved by connectedness as a result of having individuals combine unrelated pieces of knowledge in ways that may encourage explorative learning (March, 1991). (Chang and Hughes, 2012) hypothesized that the more a structure is characterized by formalization and connectedness, the higher the appearance of ambidexterity. They tested their hypothesize, and found strong support for this statement.

We have now explained that there are several architectural approaches that can be used to achieve ambidexterity. Three of the approaches are based on different ways of separating individuals or work modes. Spatial separation and task partitioning deals with individuals performing *either* explorative *or* exploitative tasks in different business units, or within in the same business unit, respectively. Temporal separation is concerned with separating the work modes of exploration and exploitation in time, rather than separating them between business units or people. In our opinion, these methods are clearly rooted in the paradigm of the product-oriented company, with a value chain configuration understanding of the business operations.

Another set of indicators for architectural ambidexterity is the simultaneous presence of high degree of formalization and connectedness. These indicators are not concerned with the specifics in the organizational design. They do not involve a discussion of business units or work modes of individuals within these business units.

This makes formalization and connectedness more flexible indicators for discussing architectural ambidexterity, since they can be adapted to all types of different organizations. We think that connectedness is an important element of the architectural approach that is easy to forget when discussing the separation work modes. A higher degree of formalization can be viewed as a result of a more thoughtful business unit separation, but the informal connectedness within a company is vital in spreading new knowledge and fostering innovation. Even when choosing to separate the activities of exploration and exploitation, it seems necessary to reconnect the two to facilitate innovation.

As we have discussed, the indicators of formalization and connectedness are more flexible concepts for discussing the architectural approaches. In our opinion, the two indicators offer a better explanation of architectural approaches, than other explanatory models presented. This leads us to believe that the two indicators will be useful in our discussion of the architectural approaches in the context of companies with a value shop configuration.

Since architectural approaches often involve structure we thought it would be interesting to find out more about how a company handles ambidexterity it increases in size. It is a well-established truth in the organizational theory that an increased company size leads to an increase in structures and more hierarchy (Ouchi, 1979). A company growing from 10 to 1000 employees will obviously be in need of a more rigid structure in form of communication systems, working procedures and more specific roles for employees. This seems to coincide well with the architectural approaches to ambidexterity. But are growth and architectural approaches directly related? And if so, how do they correlate, and in which cases do they correlate? To investigate these questions we developed the following proposition:

> An increased number of employees require a value shop to adopt a more rigid structure, which causes an increased emphasis on architectural approaches.

Now that we have a presented the architectural approaches, and which of them are the best fit to describe a value shop, and why we are interested in the connection between growth and architectural approaches, we will conclude this subchapter with a summary of the most relevant architectural approaches to ambidexterity. A summary of the most important approaches mentioned in this subchapter is presented in Figure 3.11. In the next subchapter, we will describe contextual approaches to ambidexterity.

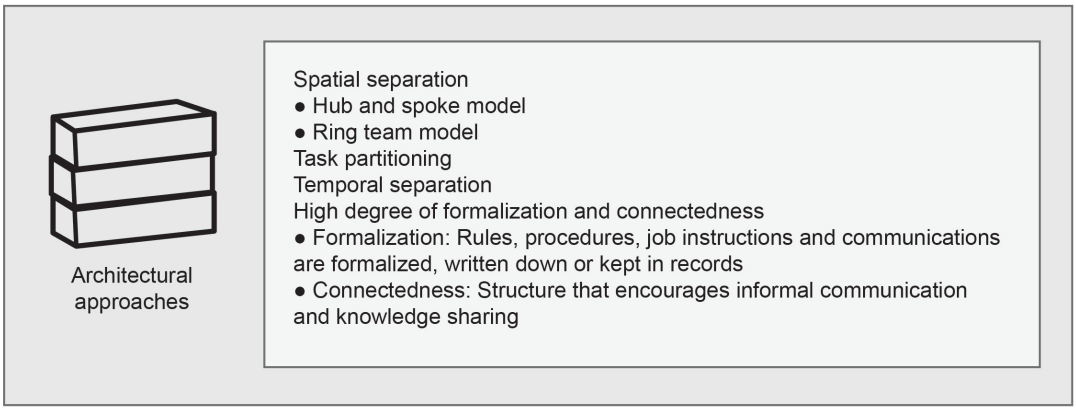


Figure 3.11 Summary of architectural approaches to ambidexterity.

3.5.2 Contextual approaches

Raisch et al. (2009) define contextual approaches as the behavioural mechanisms that enable an organization to manage both exploratory and exploitative efforts within the same business unit. At the organizational level, contextual ambidexterity can be defined as the collective orientation of the employees towards the simultaneous pursuit of alignment and adaptability. Contextual ambidexterity calls for individual employees to use their own judgment as to how they should divide their time between explorative and exploitative activities (Gibson and Birkinshaw, 2004). The term integration is used as a synonym for contextual approaches by several scholars (Raisch et al., 2009, Andriopoulos and Lewis, 2009). We illustrate architectural approaches as a bucket of mortar to symbolize that these approaches are concerned with building an environment where ambidexterity can flourish.

Gibson and Birkinshaw (2004) presented the concept of contextual ambidexterity as a response to the heavy focus on structures and processes in achieving ambidexterity. The two authors suggested that contextual ambidexterity emerges when leaders in business units develop a supportive organizational context that helps employees make their own decisions when met with the strain between exploration and exploitation. For contextual approaches, the individual is to a larger degree responsible for the balance between exploration and exploitation. This is opposed to the architectural approaches, where the decision more often lies with the management, as they are the ones with the greatest influence over the structural design of the company.

In order to achieve contextual ambidexterity one must have a clear idea of what the organizational context is. According to Ghoshal and Bartlett (1994) organizational context is the systems, processes and beliefs that shape individual-level behaviours in an organization. This can be defined in terms of four behaviour-framing attributes: discipline, stretch, support and trust. These behaviour framing attributes are a result of conscious actions of the management in a company (Ghoshal and Bartlett, 1994). Ghoshal and Bartlett (1994) did not argue that these four behaviour framing attributes would contribute to contextual ambidexterity, instead this research question was posed by Gibson and Birkinshaw (2004) ten years later. They hypothesized, and found support for, that a business unit has a higher level of ambidexterity the more it is characterized by an interaction of stretch, discipline, support and trust (Gibson and

Birkinshaw, 2004). These four contextual features will be discussed more in detail below.

The attribute of discipline encourages employees to strive to meet the expectations that others have towards them due to their commitments, for example, when the hardworking employee tries to impress his supervisor. In order to establish discipline an organization must have clear standards of performance, a system of open and rapid feedback and consistency in the use of sanctions. The second behaviour framing attribute, stretch, encourages employees to set ambitious goals. To facilitate stretch, a company must develop a collective identity, create shared ambitions within the organization and make sure that employees attach a personal meaning to their work (Gibson and Birkinshaw, 2004). If an employee has ambitious goals it is equally important that he or she is motivated enough to reach this goal. We believe that what Gibson and Birkinshaw (2004) call personal meaning as a premise for stretch, can also be called motivation.

The third feature of the contextual approach, support, induces employees to help each other. To make this happen an organization must have systems that facilitate knowledge sharing and equal access to resources. The aim is to provide an environment where there is freedom of initiative even for low levels of the organization, and where senior staff-members prioritize guidance of lower level employees (Gibson and Birkinshaw, 2004). In our opinion, a high level of autonomy for all employees corresponds closely with establishment of support. The fourth attribute, trust, encourages employees to rely on each other. Fair decision processes, involvement in decisions that affect the organization and staffing the right people, are all actions that foster trust (Gibson and Birkinshaw, 2004).

Earley and Gibson (2002) argue that an organization needs to foster discipline and stretch so that individuals aspire to high goals, while at the same time creating a context of support and trust in order for this to happen in a cooperative environment. They also note that activities such as socialization and team-building practices foster shared values and aid coordination, helping actors think and act ambidextrously on a day-to-day basis. They predicted a relationship between organizational context and contextual ambidexterity, consisting of social context and performance management. They found support for this hypothesis, and the relationship they predicted is illustrated in Figure 3.12 below.

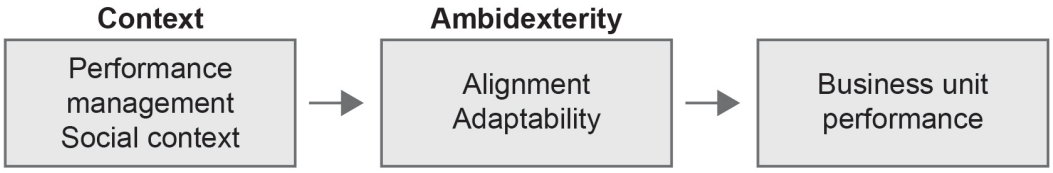


Figure 3.12 Context and ambidexterity (Gibson and Birkinshaw, 2004).

Gibson and Birkinshaw (2004) claim their view of organizational context coincides with Ghoshal and Bartlett (1994) definition of the four behavioural attributes presented above. Exactly how the two views coincide is hard to decipher from their article. We believe that the attribute discipline can be connected to performance

management due to its focus on feedback and sanctions. We also think that the attributes trust, stretch and support can be linked to the social context. Based on our assumptions we have created Table 3.1 with an overview of how these subjects are related:

Table 3.1 Paradox of personal drivers.

Performance management	**Social context**
Discipline	Stretch Support Trust

Gibson and Birkinshaw (2004) concluded their study by stating that they believed that the concept of contextual ambidexterity would become an important part of understanding how leaders should manage the tensions between exploration and exploitation. By doing so they effectually introduced a new domain of research within the field of ambidexterity, expanding from architectural approaches to the new topic of contextual approaches.

Chang and Hughes (2012) looked into the two contextual conditions of performance management and social context when studying ambidexterity in small and medium-sized enterprises (SMEs). They hypothesized that the more a context is characterized by a supportive social context, and both goal and effort-based performance management, the higher the appearance of ambidexterity, but did not find support for this hypothesis through their study. Chang and Hughes' (2012) own explanation is that the constrained access to resources in SMEs requires a tight focus on the organizational operations. Our interpretation is that the contextual elements of discipline, stretch, support and trust are more naturally present in SMEs because of their size. This means that management does not have to deliberately implement measures to create a supportive environment characterized by trust, stretch and discipline, as they obviously have to do in larger companies. An argument that strengthens our view is that Chang and Hughes (2012) based their quantitative study exclusively on self-reporting surveys from CEOs and Chief Product Design Managers, when trying to establish a relationship between contextual characteristics and ambidexterity. Although the respondents reported that there was no link between the two, the other employees in the organization may experience otherwise.

Although Chang and Hughes (2012) couldn't support their hypothesis of the relationship between ambidexterity and the contextual elements of social context and performance management, we are not ready to drop social context as an important indicator for contextual ambidexterity. Raisch et al. (2009) state that socialization and the under category of team building are important procedures that can assist people in thinking and acting ambidextrously. Socialization is the means by which cultural and social continuity are attained. Socialization is broadly defined as the process in which a person acquires the skills and social knowledge to assume an organizational

role. Methods that are used to socialize individuals into an organization involve training, education, cooperation and apprenticeships (Dubinsky et al., 1986).

The concepts of socialization and support are directly linked to knowledge, as the prior has to do with acquiring new knowledge and the latter has to do with sharing knowledge through knowledge sharing systems. Systems can be formal such as training or knowledge management computer systems, and informal such as colleague networks where high levels of trust facilitate knowledge sharing. We wonder if it possible to attain the high level of trust needed to facilitate knowledge sharing, while implementing performance management systems. The reason we question this is because we believe that the implementation of performance management systems creates internal competition for praise and bonuses, which would counteract a trusting and supporting work environment.

Value shops are often knowledge-intensive companies with a very autonomous work force, where the ability to acquire and effectively disseminate knowledge is a central competitive advantage. But how can a company encourage such behaviour through discipline and performance management? To examine these questions we present another proposition which links contextual approaches, the value shop configuration and the company resource of knowledge together. It reads as follows:

> Value shops must use contextual approaches to refine existing knowledge and acquire new knowledge.

To be able to answer this question we combined the theoretical efforts of Ghoshal and Bartlett (1994), Gibson and Birkinshaw (2004) and Chang and Hughes (2012) to summarize the contextual approach. We present the main points from Chang and Hughes (2012), performance management and social context, and on the basis of our previous discussion, placed the four behaviour attributes of discipline, stretch, support and trust in those two categories. We present this systemized summary in Figure 3.13. In the next subchapter, we will describe combinatorial approaches that integrate both architectural and contextual approaches.

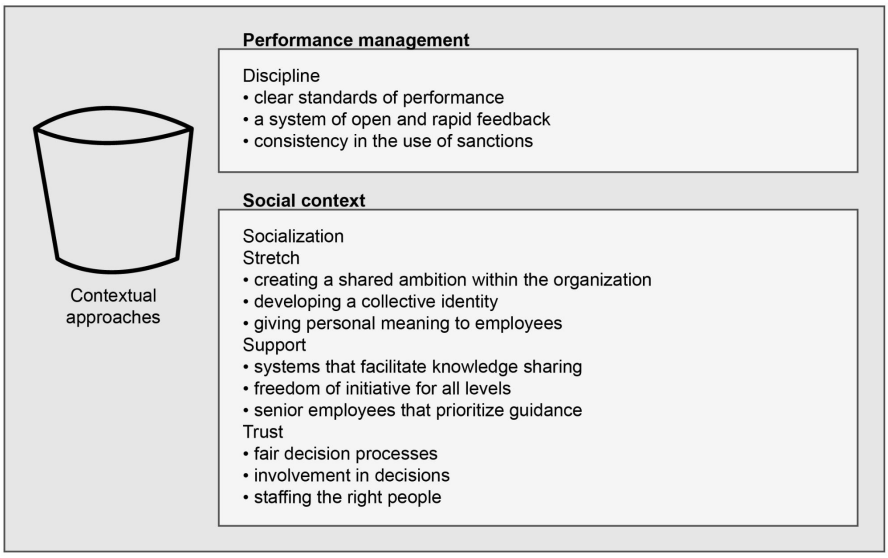


Figure 3.13 Summary of contextual approaches to ambidexterity.

3.5.3 Combinatorial approaches

So far we have presented architectural and contextual approaches that companies can use to solve the paradox of ambidexterity. We will in this subchapter present the combinatorial approaches, which we as a brick wall, made up of bricks and mortar, to illustrate the fact that they combine architectural and contextual approaches.

Architectural and contextual approaches have been prevalent in the organizational ambidexterity research for almost a decade, and according to Raisch et al. (2009) ambidexterity researchers have usually focused on either architectural or contextual approaches in their research. Several scholars have pointed out negative effects that a narrow focus on architectural or contextual approaches can result in (Gibson and Birkinshaw, 2004, Jansen et al., 2006, Andriopoulos and Lewis, 2009).

Critics of the architectural approach claim that the separation methods within this approach tend to lose the importance of connecting the explorative and exploitative activities and business units in their discussion of how to achieve ambidexterity (Eisenhardt and Martin, 2000, O'Reilly and Tushman, 2008). This means that structurally separating business units counteracts the goal of achieving an ambidextrous organization (Raisch et al., 2009). Critics of contextual approaches claim that the business context is constrained by the individuals in their efforts of performing exploratory and exploitative activities (March, 1991, Inkpen and Tsang, 2005). Individuals use the same knowledge and experiences as a basis for carrying out both activities, which makes it difficult to explore fundamentally different knowledge bases (Raisch et al., 2009).

Raisch et al. (2009) emphasize the necessity to combine both architectural and contextual approaches, but acknowledge its difficulties. This is because the combination of both approaches requires individuals to work in different *thought worlds*, which according to Inkpen and Tsang (2005) is beyond their cognitive limits. Also, when combining architectural and contextual approaches an organization runs the risk of destroying the *pragmatic boundaries* that protect exploratory activities from being influenced by mainstream activities in other business units (Carlile, 2004). Gupta et al. (2006) claim that it is important that organizations recognize exploration and exploitation as a paradox when combining architectural and contextual approaches. Although the combination of both architectural and contextual approaches can be seen as a paradox, they are complementary, not alternative mechanisms for ambidexterity (Raisch et al., 2009).

We agree with Raisch et al. (2009) that the two approaches are not two sides to a paradox, but rather complementary, but as discussed in the last subchapter, the need to apply the different approaches might vary dependent on several factors. Whether it's the size of the company, or the nature of how they provide value to their customer. The managerial challenge, which we will examine closer in the next subchapter, is to be able to understand the situation of the company, and strive for the right balance of exploration and exploitation. That balance is not directly correlated with the use of architectural and contextual approaches. Here we would also like to follow the argument of Raisch et al. (2009, p.687): "Because the need for exploitation and exploration can vary across initiatives as well as over time,

managing the differentiation-integration [architectural-contextual] tensions is likely to be an important dynamic capability for creating and sustaining organizational ambidexterity".

Andriopoulos and Lewis (2009) answered the call from Raisch et al. (2009) on exploring the notion of architectural and contextual approaches not being alternatives, but complementary, and were one of the first scholars to present a model that combined architectural and contextual approaches. They noted that: "Whereas literature is replete with warnings about the difficulties of managing exploitation-exploration tensions, related studies inhibit comprehensive understandings, presenting either architectural or contextual approaches and employing conceptual, anecdotal, or single-case studies" (Andriopoulos and Lewis, 2009, p.696). They sought to develop a more comprehensive model where the two approaches could be combined, and carried out an extensive comparative case study of five product development companies. As a result they summarized their finding with a presentation of architectural and contextual approaches that can be used in combination to foster ambidexterity. Contextual and architectural approaches were presented in the context of three underlying paradoxes of exploration and exploitation. These three nested paradoxes are strategic intent, customer orientation and personal drivers, and are shown in Figure 3.14.

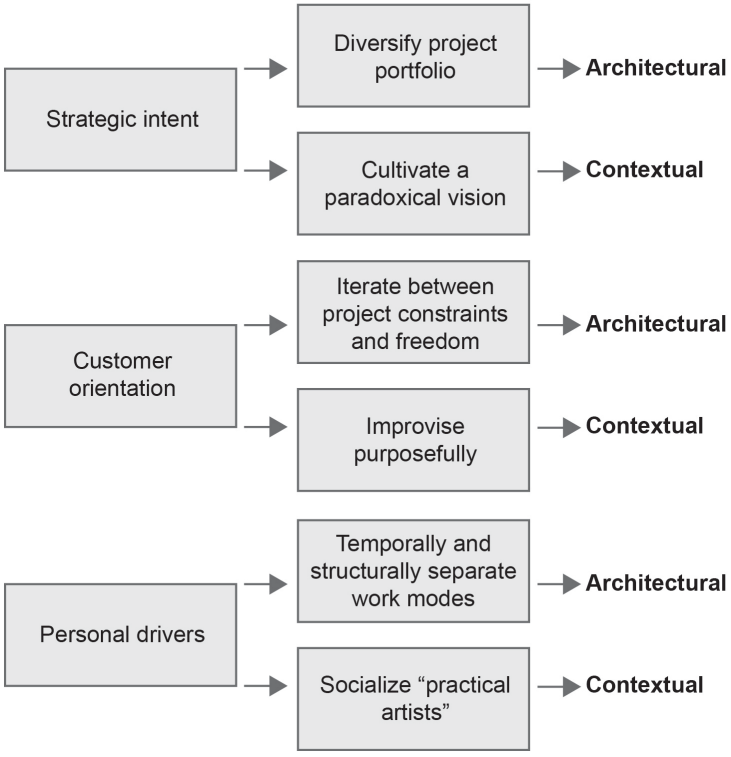


Figure 3.14 Combinatorial approaches.

Strategic intent poses a paradox due to the need for companies to emphasize both profit and breakthroughs (Andriopoulos and Lewis, 2009). To deal with the paradox of strategic intent Andriopoulos and Lewis (2009) found that organizations cultivated a paradoxical vision in their employees while at the same time diversifying their project portfolio. In the five cases they investigated, this paradoxical vision typically manifested itself as the tension between commercial success and the employee's

artistic expression. To cultivate this vision is a contextual approach because it involves using behavioural and social means to integrate exploration and exploitation. Diversifying the project portfolio is an architectural approach, because the company uses projects or contracts to enable a separate focuses on straightforward projects to pay the bills and on pioneering projects to build new capabilities (Andriopoulos and Lewis, 2009).

The paradox of customer orientation comes into being when there is dissimilarity between what their customer wants to buy and what the organization that supplies a good or service want to create. When dealing with the paradox of customer orientation the architectural approach is to iterate between project constraints and freedom, and the contextual approach is to improvise purposefully (Andriopoulos and Lewis, 2009). When improvising purposefully project teams exploit existing routines while at the same time exploring within the project, which means that they intentionally decide on what to focus on as they go along (Andriopoulos and Lewis, 2009).

Personal drivers represents the tension between discipline and passion, both characteristics needed to successfully innovate (Andriopoulos and Lewis, 2009). A employee can feel a strain between doing what they are passionate about and being disciplined enough to carry through projects that are not as fulfilling. The managerial challenge in tackling the paradox of personal drivers is to socialize *practical artists,* while at the same time temporally and structurally separate work modes (Andriopoulos and Lewis, 2009). The socialization of *practical artists* has to do with nurturing paradoxical identities within people through hiring, educating and mentoring. The goal is to challenge knowledge workers' creativity. To temporally and structurally separate work modes entails varying the nature of the work through different projects and project phases (Andriopoulos and Lewis, 2009).

Our combinatorial approach is largely based on the article by Andriopoulos and Lewis (2009), due to the fact that the discussion of how to combine the architectural and contextual approaches is quite new, and not yet heavily discussed amongst innovation researchers. With this in mind, the article by Andriopoulos and Lewis (2009) is according to a search on Google scholar cited 219 times, and they are cited by well known scholars in the field of organizational ambidexterity, as Raisch et al. (2009), Tushman et al. (2010) and Smith and Lewis (2011). Viewed in conjunction with the actual content and quality of the work, we deem it safe to rely heavily on their article when establishing the combinatorial approach.

The overarching paradox of exploration and exploitation may be perceived as quite abstract and difficult to handle in an everyday situation for practitioners, both for individuals as well as experienced managers. In our opinion dividing the overall paradox of exploration and exploitation in nested paradoxes is a logical way to describe how architectural and contextual approaches can be combined. The main paradox involves many independent elements, and when trying to tie them all together it is easy to get lost. Andriopoulos and Lewis' (2009) nested paradoxes is a good way to discuss the elements separately, and in a more specific manner, and it also provides a comprehensible framework to tie together a understandable entity.

The dangers of splitting up the main paradox into smaller parts, is that it is easy to lose the overall understanding of exploration and exploitation. The list of nested paradoxes is in no way exhaustive, and the theory it is based on is a case study that is not quantitatively tested. So even though the study is very comprehensive and written by renowned researchers, it is only based on five product design companies. We will take these critical reminders into account when exploring the nested paradoxes further. We believe that it is necessary to strengthen the theory around combinatorial approaches, and we will therefore present two propositions that can help us explore this concept.

We will not examine all of the three nested paradoxes, but focus especially on the paradox of personal drivers. In our opinion knowledge workers in all fields of specialty experience a strain between doing what they are passionate about, and being disciplined enough to perform the mundane tasks that come with most jobs. We would like to investigate the paradox of personal drivers further, in relation to central elements of the value shop configuration: company culture and knowledge management. When examining the relationship between the company culture and the paradox of personal drivers, we wish to reveal which elements of company culture that coincides with socializing practical artists and the separation of work modes. On these premises the first of the propositions related to the paradox of personal drivers reads as follows:

> To solve the paradox of personal drivers, the value shop must use elements from the company culture.

Obtaining, sharing and refining knowledge is important elements of knowledge management, whereas temporal separation of work modes allows employees to switch between tasks, and thereby learn new things and enhance existing knowledge. We wonder if the separation of work modes is enough to secure a high standard in knowledge intensive value shops, or of it needs to be combined with the contextual approach of socializing practical artists. This is the foundation for the nest proposition:

> To solve the paradox of personal drivers, the value shop must use elements from knowledge management.

To sum up the subchapter on combinatorial approaches we would like to remind the reader of the discussion about how organizations should not focus solely on architectural or contextual approaches. We agree with the scholars that critique the exclusive focus on architectural or contextual approaches, and we propose a category of combinatorial approaches based on the work of Andriopoulos and Lewis (2009). A way of explaining combinatorial approaches is by creating nested paradoxes, which splits the overall paradox into smaller, more understandable parts. We introduce two propositions in this subchapter that will be used to examine the relationship between company culture, knowledge management and the nested paradox of personal drivers. The solution to the three nested paradoxes presented

by Andriopoulos and Lewis (2009) are gathered in Figure 3.15 below. In the next subchapter we will discuss management approaches.

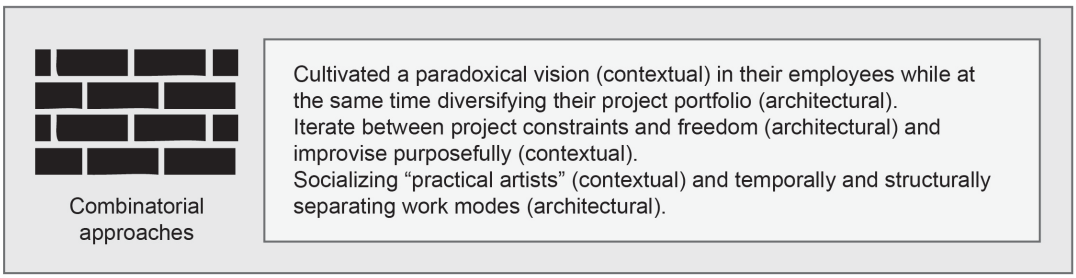


Figure 3.15 Summary of the combinatorial approaches.

3.5.4 Management approaches

The role of management in organizational ambidexterity has experienced increasing interest since the turn of the 21st century, as scholars have emphasized that the actions of top management can bring explorative and exploitative innovations to life (Chang and Hughes, 2012, Simsek et al., 2009, Mom et al., 2007, Lubatkin et al., 2006). Both researchers working from a architectural and contextual standpoint recognize the indirect, yet pivotal role of senior management with regard to the organizations ability to achieve ambidexterity (Simsek et al., 2009). We choose to separate management from architectural, contextual and combinatorial approaches. This is because management approaches have more to do with the characteristics of leaders and *how* they manage, whereas the three others have more to do with they way an organization is designed.

If we return to the metaphor of the house of bricks and mortar we can depict the manager as the person(s) that make use of both architectural and contextual approaches in combination to achieve ambidexterity. Essentially we are focusing on the leaders of the organizations and not the organizations themselves. We will be touching on factors such as the leaders characteristics, management styles and the division of management roles that in relation to achieving ambidextrous organizations. We illustrate managerial approaches as a builder, which symbolizes the person that is in charge of combining architectural and contextual approaches.

Chang and Hughes (2012) examined risk-taking and adaptation in leaders. They hypothesized and found support for the fact that top managers with a high tolerance for risk and adaptability lead organizations with a higher degree of ambidexterity. Risk-taking has to do with the degree of risk a leader takes or tolerates. If top managers are tolerant towards risk and accept the cost of possible failures, their employees will most likely propose and introduce new product or services as a consequence of a changing environment (Kohli and Jaworski, 1990). This is because the way top management acts, and makes decisions, signals what type of behaviour is desired among their employees (Kohli and Jaworski, 1990). Top managers with high-risk tolerance, will most likely favour a higher return and, by that, more innovative opportunities (Lumpkin and Dess, 1996).

It has been shown that managers with risk tolerance see risk differently than managers that are risk averse. This gives risk tolerant managers a better understanding of the opportunities in the market as it is changing (Janney and Dess, 2006). The downside of risk tolerance is that leaders may have a hard time accepting that the high-risk projects that they have invested in will not succeed. This can result in bad decision making, for instance that the leader continues the project even though discontinuing it is obviously the right thing to do (Janney and Dess, 2006). A risk averse top manager on the other hand will most likely foster employees that focus on gradually improving existing products or services, instead of generating new solutions (He and Wong, 2004).

Managers that take risk often favour more explorative projects with uncertain short-term profitability, and risk-taking can have both positive and negative effects on a company's ambidexterity. The issue of risk tolerant or risk adverse managers is yet another example of theory that is based mainly in the product-oriented or value chain paradigm. It is often related to market push mind-set of production companies, and not the market pull specifics of a value shop. Product-oriented companies with a market push mind-set usually forecast what their customers will need, and produce accordingly, whereas value shops are led by market pull, where the customer requests the product and the solution is based on this request.

Naturally we would like to explore the risk tolerance of managers in companies with a value shop configuration in connection to ambidexterity and the paradox of exploration and exploitation. We suspect that they are risk averse due to the fact that when a explorative project fails, a value shop does not only lose the money invested in the project, but may also lose their reputation, customers, employees and therefore their main competitive advantage *knowledge*. The proposition we put forward to examine this subject, reads:

> When selecting which projects to pursue, leaders tend to focus more on exploitation than exploration.

Jaworski and Kohli (1993) write that adaptability depends on the knowledge of the firm's markets, technologies, product-services and customers that managers and non-management employees possess. Being adaptable means being willing to change with a changing environment, and in the case of organizational theory is has to do with being adaptable to market changes. An adaptive leader will stress employees on the importance of adapting to market trends, being aware of competitors and the acting now to meet customers' future needs. Morgan and Berthon (2008) questioned the relationship between market adaption and generative learning and found, in accordance to the concept of ambidexterity, that both contribute to exploitative and explorative innovation. But, they also prove a spill over effect where organizations that exhibit successively greater levels of market orientation corresponds with increase in levels of generative learning and vice versa (Morgan and Berthon (2008).

Rosing et al. (2011) had a different viewpoint of ambidextrous leadership, and proposed that a leader needs two complementary sets of behaviours to achieve

ambidexterity, namely opening and closing behaviours. Also, ambidextrous leaders need to be able to switch between opening and closing behaviours in a flexible manner. This is because teams need to constantly switch back and forth between different activities in an innovation process (Andriopoulos and Lewis, 2009). When switching between the two different behaviours a leader encourages employees to work with either explorative or exploitative tasks.

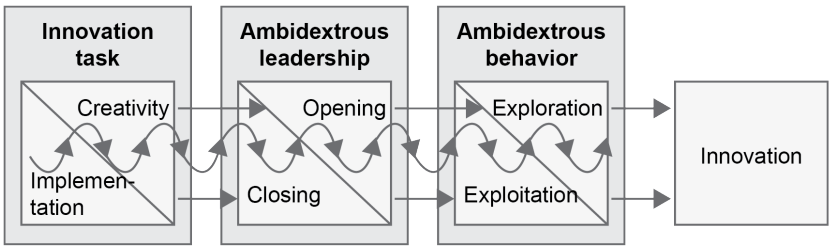


Figure 3.16 Model for ambidextrous leadership (Rosing et al., 2011, p. 966).

Examples of opening leadership behaviours are encouraging experimentation with different ideas, allowing errors, encourage error learning, allowing different ways of accomplishing tasks and motivating employees to take risk. Examples of closing leadership are establishing routines, sticking to plans, sanctioning errors, monitoring and controlling goal attainment, taking corrective action and controlling adherence to rules. It seems logical that opening and closing behaviours would be closely related to the manager's personal characteristics, and his or her personal priorities.

Since these characteristics influence the way she manages, a manager must be able to cultivate both exploration and exploitation in her efforts to achieve ambidexterity (Tushman and O'Reilly, 1996). These two activities are paradoxical and managing them requires behavioural complexity (Hooijberg, 1996). The concept of behavioural complexity is defined by Hooijberg (1996) as a repertoire of different behaviours, and the ability to alternate between these different behaviours according to the requirements of the situation. Emotional intelligence is also a characteristic that an ambidextrous leader should possess, so that she can understand the emotions of actors connected to the innovation process (Zhou and George, 2003). An ambidextrous leader should also be able to conduct integrative thinking (Martin, 2007). Integrative thinking is described as being able to face the tension created by the opposing ideas of exploration and exploitation in a constructive manner (Martin, 2007).

In a company with a value shop configuration where the majority of work is conducted in temporary project teams, the CEO will probably surface as an important figure. Employees in value shops experience shifting management because they report to different project managers on every project, which makes the CEO one of the only constant leaders. We believe that when the project managers have less influence, because they constantly manage new people, the CEO's way of leading the company becomes more important.

This means that the CEO's leadership style is important in relation to how the company achieves ambidexterity, and particularly in relation to the contextual

approaches. The CEO implements contextual approaches by standing out as a symbolic leader figure, and leading by example by setting ambitious goals, and communicating the vision. But he also has to follow up on his employees by creating an environment characterized by support and trust, to ensure that the employees keep working towards the achieving the vision. We have formulated a proposition that will allow us to explore this subject in our thesis. The proposition reads:

The CEO's leadership style is crucial for the effect of contextual approaches.

We consider integrative thinking to be very closely connected to the temporal ability to switch between opening and closing behaviours, and we will therefore use temporal ability to switch between opening and closing behaviours as in indicator of integrative thinking. That means that we won't mention integrative thinking explicitly when evaluating Making Waves in this thesis. Behavioural complexity and emotional intelligence are not aspects that we feel competent to evaluate, especially since we won't be able to study the CEO for an extended period of time. We have therefore decided not to include them in our discussion in Part III.

In this subchapter, we have described the management approaches to ambidexterity, and discussed the propositions we have crafted to find out more about management approaches in value shops. We have summarized the most important management approaches in Figure 3.17. In the next subchapter, we will review the propositions that we have created through our discussion of the theory, and systemize them for further use in our thesis.

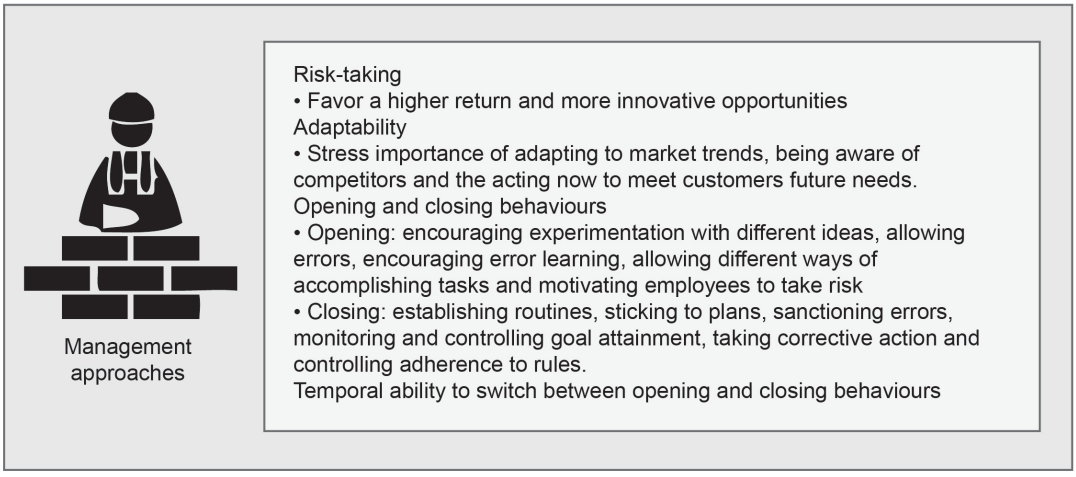


Figure 3.17 Summary of management approaches.

3.6 The propositions

In subchapter 3.5, we described the four different internal approaches to ambidexterity: architectural, contextual, combinatorial and managerial. In this subchapter, we will present a short recap of the propositions we described in chapters 2 and 3, and why we found them interesting.

In subchapter 2.3, we learned that refining existing knowledge was a path to exploitation, and we questioned whether organizations focus on both tacit and

explicit knowledge, or only one of the two. The proposition we crafted to help us figure this out reads: A value shop deliberately combines both tacit and explicit knowledge to achieve exploitation.

In subchapter 3.3.3, we found that ambidexterity in value shops is more difficult to understand than in production-oriented companies, because it is more difficult to separate product and process innovation. Since employees in a value shop mostly work on customer projects, it seems logical to believe that value shops achieve ambidexterity through exploration and exploitation in those projects. This means that they achieve ambidexterity through the customers, when internalizing and executing the necessary steps in a project. To learn more about how value shops achieve ambidexterity through customer projects, we created the proposition that reads as follows: Value shops achieve ambidexterity through their relationships with new and existing customers.

In subchapter 3.5.1, we found that architectural approaches emphasize structures to achieve ambidexterity, and therefore we expect there to be a correlation between growth in employees and an increase in the use of architectural structures. We therefore created the following proposition: An increased number of employees require a value shop to adopt a more rigid structure, which causes an increased emphasis on architectural approaches.

In subchapter 3.5.1, we found that the contextual approaches of socialization and support are linked to knowledge, and since value shops are knowledge intensive, we wish to investigate how these types of organizations use contextual approaches to refine and acquire knowledge. The proposition we developed that would help us do so reads: Value shops must use contextual approaches to refine existing knowledge and acquire new knowledge.

In subchapter 3.5.3, we made two propositions. The first one reads: To solve the paradox of personal drivers, the value shop must use elements from the company culture. The second one reads: To solve the paradox of personal drivers, the value shop must use elements from knowledge management. We created these propositions because we were curious to see if the nested paradox of personal drivers was transferable to other professionals than product designers. The nested paradox is linked to knowledge management because these concepts are relevant for the contextual approach of socialization, which constitutes one half of the combination of approaches.

In subchapter 3.5.4, we created the following proposition: When selecting which projects to pursue, leaders tend to focus more on exploitation than exploration. The proposition was created to understand more about the risk-taking behaviour of managers in value shops. We learned that risk-taking managers often seek more explorative projects, and that this attitude may correlate positively with ambidexterity in an organization. But we suspect that managers in value shops are more risk averse due to the fact that failed exploration may lead to loss of a customers due to the extensive collaboration and big investment by the customer, and therefore we expect them to focus more on exploitation.

Managers that take risk often favour more explorative projects with uncertain short-term profitability, and risk-taking can have both positive and negative effects on a companies ambidexterity. We are curious as to how managers tolerate risk in a consultancy based value shop, and wish to explore this further. We suspect that they are risk averse due to the fact that if a explorative project fails, a value shop does not only lose the money invested in the project, but may also lose their reputation and customers. The proposal we have created to find out more about this subject reads:

In subchapter 3.5.4, we predicted that the CEO's leadership style is important for how a company achieves ambidexterity, based on the theory from both subchapter 3.5.4 and subchapter 3.3.2. Scholars agree that all levels of management are responsible for ambidexterity, but not much is written about how the responsibility is distributed between the different managerial roles. The proposition that will help us find out if the CEO in fact is as important as we think reads as follows: The CEO's leadership style is crucial for the effect of contextual approaches.

Several of the propositions we have presented in this subchapter are related, and we will therefore group those particular propositions together. For the sake of structure in the thesis, we have numbered each proposition. The propositions will be brought up again in chapter 7.

1a: A value shop deliberately combines both tacit and explicit knowledge to achieve exploitation.
1b: Value shops must use contextual approaches to refine existing knowledge and acquire new knowledge.
2: An increased number of employees require a value shop to adopt a more rigid structure, which causes an increased emphasis on architectural approaches.
3a: Value shops achieve ambidexterity through their relationships with new and existing customers.
3b: When selecting which projects to pursue, leaders tend to focus more on exploitation than exploration.
4: The CEO's leadership style is crucial for the effect of contextual approaches.
5a: To solve the paradox of personal drivers, the value shop must use elements from company culture.
5b: To solve the paradox of personal drivers, the value shop must use elements from knowledge management.

3.7 Summary

We have explained that ambidexterity is the act of balancing exploration and exploitation, despite the fact that they require different company configurations and appear mutually exclusive. By being ambidextrous, companies increase their chances of long-term survival, as they are able to make more money on existing revenue streams, while being able to develop completely new and potentially groundbreaking products that may create future revenue streams. The overall responsibility of ambidexterity lies with the manager of any organization, but scholars today argue that lower levels of management, and perhaps across all organizational levels have to adopt an ambidextrous mind-set if the company is to succeed.

The two main groups of approaches to ambidexterity are external and internal approaches. External approaches are approaches where companies obtain exploration or exploitation from outside of the company's boundaries. Internal approaches are approaches where companies achieve exploration and exploitation within the boundaries. We have chosen to focus on internal approaches in this study.

We have identified and described four main internal approaches that can lead to ambidexterity: Architectural, contextual, combinatorial and management approaches. These approaches will be used in the discussion in chapter 7. In the next chapter, we will describe our methods for writing this thesis and collecting the empirical data on Making Waves, which will be presented in chapters 5 and 6.

Part III

Methodology and empirical data

4 Methodology

In the previous chapter, we described the different approaches to ambidexterity, which we will use to discuss our propositions in chapter 8. In this chapter, we will present the methodology we have used when creating this thesis, and explain why we chose a qualitative research strategy, and a single case study research design. We will also explain what we have done to strengthen the quality of our research and examine key points of critique. The qualitative research strategy and its implications will be presented in the first subchapter.

4.1 Qualitative research strategy

A simple way to distinguish qualitative research from quantitative research is that quantitative research concerns itself with words rather than numbers. But Bryman and Burgess (1999) point out that explaining qualitative research in terms of what quantitative research is not, is not sufficient. To overcome this issue, Bryman (2008) presents three dimensions that help define the most important attributes of qualitative research. The first dimension is the role of theory in relation to research; the second and third dimensions are the ontological and epistemological orientations. We will now introduce the three dimensions and their relevance to our thesis.

4.1.1 The role of theory in research

The role of theory in research is either deductive or inductive. In deductive theory one deduces a hypothesis from theory and tests that theory with empirical findings. The theory and hypothesis guide the process of collecting data, for example in the design of an experiment (Rynes and Gephart Jr, 2004). The process is reversed when using inductive theory, and the outcome of the research is not validation or rejection of theory, but a development of new theory. Observations and data drive the theory development forward in these cases (Bowen, 2008).

Our research has not been conducted with the goal of testing the validity of theoretical concepts, but rather to explore a case in the context of the theory, and from that try to develop new theory. We have tried to better align the current theory with what we have observed in real life, in other words, we seek to close the gaps between theory and reality. This results in an inductive relationship between theory and research (Eisenhardt and Graebner, 2007).

4.1.2 Ontology

Ontology concerns the question of how to deal with social entities in research. The two main perspectives are called objectivism and constructionism. Objectivism sees organizations as objective entities that constrain and internalize people, and constructionism sees them as social entities constructed and influenced by people (Searle, 2006).

Our case company Making Waves was founded about ten years ago, and most founders still work in the organization. Our study is not a discourse analysis of power and influence in Making Waves, and we have been pragmatic in our consideration of ontology. We think that the top management and founders of the company have had a bigger influence in building the company culture than the lower level staff. Although

the organization may be perceived as less impressionable to lower level staff, we did not get the impression that it constrains them. We therefore consider ourselves to have a constructionist perspective.

4.1.3 Epistemology

Epistemology is the discussion of knowledge, its justification, limits and structure (Cook and Brown, 1999). It is a philosophical discussion about what true knowledge is, and how it should be obtained. In the social research setting, epistemology refers to a debate on whether the methods of natural sciences are applicable, or not. Researchers of the positivist tradition believe so; researchers of the interpretivist tradition do not. Interpretivists seek to understand human behaviour, rather than to seek explanations for it. They emphasize that social actions must be meaningful to social actors, and therefore they need to be interpreted from the social actors' point of view (Eisenhardt and Graebner, 2007). The interpretivist perspective coincides well with our ambition to understand how the members of our case company view themselves in relation to the paradox of exploration and exploitation.

4.1.4 Summary of qualitative research strategy

We have introduced some of the main points distinguishing quantitative and qualitative research, and how they relate our thesis. We have chosen a qualitative research strategy because we have a desire to understand the theoretical concept of ambidexterity through the eyes of our informants, and to build new theory from this data. This implies an inductive relation between theory and research, with a constructionist and interpretivist perspective.

Table 4.1 Quantitative and qualitative strategies Bryman (2008)

	Quantitative	**Qualitative**
The role of theory in relation to research	Deductive; testing of theory	Inductive; generation of theory
Ontology	Objectivism	Constructionism
Epistemology	Natural science model, in particular positivism	Interpretivism

A research strategy is a broad orientation and not a detailed plan for executing a research project. We have therefore developed a research design where the single case study design is our choice of method. We will elaborate on the justification and implications of this choice in the next subchapter.

4.2 Research design

The research design is a framework for the collection and analysis of data, where the specific design relates to the criteria for evaluating the research (Eisenhardt and Graebner, 2007). According to Bryman (2008, p.30) "It is, therefore, a framework for the generation of evidence that is suited both to a certain set of criteria and to the research question".

The case study design is one of many options in research design, so we will present three reasons why we found it suitable for our research. A case study is preferred when you have a “how”-question, when you have little or no control of behavioural events, and when the research focuses on contemporary events (Yin, 2009). Our research question is “How does Making Waves balance exploration and exploitation”, and we could not, nor wished not, to control behavioural events. Making Waves is an existing company, making the event contemporary.

We wanted to achieve an in-depth understanding of one organization through our research, and we wanted to explore how this organization operates within the theoretical context of ambidexterity. Both guidelines pointed us in the direction of a case study. The unique strength of the case study is that it can deal with a wide range of data sources to secure a broad and deep understanding of a unit of analysis, which is why we chose this design (Eisenhardt and Graebner, 2007). Yin (2009) described case study research as a linear, but iterative process. We present the steps we took in Table 4.2, but it is important to note that the process involved several jumps back and fourth between the different phases. Each step will be described more thoroughly in the next subchapters.

Table 4.2 The steps taken in the research

Case study phases	Steps of qualitative research
The Plan	Research question
	Literature review
The Design	Revision of research question and propositions
	Choice of unit of analysis
Preparation	Selection of interview objects
	Creating an interview guide
Data collection	Interviews
	Observation
	Written material
Analysis	Analysis of empirical data
	Discussion of empirical data
	Linking theory with data
Sharing the results	Conclusions

4.2.1 The Plan

When planning our research, we identified a research question that would serve as a starting point, and conducted a literature review (Andersen et al., 2012) to gain a better understanding of the concepts our research question involved. It was in this phase that we decided to use the case study method.

Research question

The research question can be looked upon as the guiding star of one’s work as a researcher. It helps the researcher focus on the question at hand through the literature search, data collection, analysis and conclusion. You know where you’re headed, and it is easier to navigate through the your work as it proceeds. Without a

clear and specific question, it is easy to get lost when doing research (Rynes and Gephart Jr, 2004).

We started out with an interest for innovation management, and a curiosity related to how some companies are both innovative and are increasingly profitable, which we have defined as experiencing an increasing financial profit. In our preliminary search for a topic within the field of innovation management, we discovered the topic of organizational ambidexterity. After reading up on the subject in the context of a preliminary study, we iterated several times until we decided on the research question: “How can service organizations balance innovation and effectiveness?” The question was created in parallel with the work in the preliminary study, and the preliminary study was conducted so that we could better understand the strengths and limitations of our research question. This preliminary study was conducted in the fall of 2012 in the form of a literature review (Andersen et al., 2012).

Literature review

We explored the concept of organizational ambidexterity theoretically in the literature review, and found an interesting research question while doing so. After reading many papers on ambidexterity in production-oriented companies, we became curious about how ambidexterity manifests itself in a service organization. The goal of the literature review was to increase our knowledge about the topic of ambidexterity, so that we could decide on a sound research question and design a good case study. We did not wish to create an exhaustive overview of existing theories on ambidexterity, but rather explore the literature to find interesting subjects. Starting at the broad term of innovation, we read about exploration and exploitation, and made decisions on which parts of this subject we wanted to focus on, and which parts we found less interesting. By choosing certain areas on which to focus, we coincidently rejected others. We whittled down our area of interest several times until we landed at the topic of achieving ambidexterity in service organizations.

It was never our intention to conduct an encompassing literature review in the strictest sense. We did not uphold a rigorous regime of using strictly predefined search terms, or only referring to specific literary sources. We used the principles of snowballing, assessing relevance and open search in our information gathering (Webster and Watson, 2002). These principles are further explained in Table 4.3 below.

Table 4.3 The principles used in the literature study.

Principle	Description
Snowball sampling	Identify a set of leading scholars and their papers, and then identify additional relevant articles by examining the reference list.
Assessing relevance	Evaluate articles importance based on how many times it has been referenced in other articles, for instance by using Google Scholar. We also looked through previous curriculum to find names of scholars that were repeated often.
Open search	Involves searching for certain keywords in a search database that could help us find articles of relevance. Used when snowballing was not a sufficient technique for finding relevant material.

4.2.2 The Design

The research question was developed through the literature review. The unit of analysis we wished to study was decided on in parallel with the review, and all of this influenced the new research question. We then developed a sample of subordinate propositions to help us better answer the main research question.

Revision of research question and propositions

After gaining more insight from the literature review, we decided to make some modifications to the research question. We decided that it would be appropriate to substitute the term “service sector” with the name of our case study company Making Waves, since we did not intend to describe the entire sector, just our single case. We also found out that the research question would be more precise if we substituted the terms innovation and effectiveness for exploration and exploitation. This led us to our revised research question: “How can Making Waves balance exploration and exploitation?”

The research question is quite broad, so we used propositions to direct attention to certain parts we wanted to examine within the scope of our research question. According to Yin (2009), propositions can help researchers start moving in the right direction. We created a set of research propositions, and then revised them after our collection of empirical data, as part of our iterative process. The propositions were listed in subchapter 3.6, and are repeated here:

1a: A value shop deliberately combines both tacit and explicit knowledge to achieve exploitation.
1b: Value shops must use contextual approaches to refine existing knowledge and acquire new knowledge.
2: An increased number of employees require a value shop to adopt a more rigid structure, which causes an increased emphasis on architectural approaches.
3a: Value shops achieve ambidexterity through their relationships with new and existing customers.
3b: When selecting which projects to pursue, leaders tend to focus more on exploitation than exploration.
4: The CEO’s leadership style is crucial for the effect of contextual approaches.
5a: To solve the paradox of personal drivers, the value shop must use elements from company culture.
5b: To solve the paradox of personal drivers, the value shop must use elements from knowledge management.

The propositions are carefully developed to cover all the four main internal approaches towards organizational ambidexterity as presented in subchapter 3.5, which are architectural, contextual, combinatorial, and leadership approaches. They are also aligned with our empirical findings, which will be presented in chapter 6. All these elements are presented together in a comprehensible matrix in subchapter 4.2.5 Analysis. While creating propositions and the new research question, we decided on our unit of analysis.

Choice of unit of analysis
The unit of analysis is related to the research question because the choice of unit helps distinguish data about the subject of the case study (Yin, 2009). A lot of the theory we read about in our literature review was focused on large American or multinational companies, and these companies often showed evidence of a value chain configuration. We then decided upon four criteria for choosing our case company. We wanted to study a (1) Norwegian (2) service company, with a clear (3) innovative edge and (4) recurring economic success. We selected the first two criteria mainly because of the scope of the thesis, and because this was an area poorly covered in existing literature. We applied the two other criteria as guidelines to be able to find a case company that most likely would exhibit both explorative and exploitative activities and attitudes. In addition, the criterion on recurring economic success acted as a wide indicator on whether or not the case company could be defined as ambidextrous.

We made a shortlist of a few candidates, with Making Waves at the top. We had met representatives from the company at a job-expo early in the fall of 2012, and found them very interesting. After some preliminary research, we contacted Making Waves in early November 2012, and they were immediately positive to the idea of having us write our masters thesis about them. The collaboration started with a short meeting on January 7th with the attendance of Kari Clifford, Helge L. Andersen and the director of Experience Design at Making Waves

Considering the time and resource limit of a masters thesis, we chose to conduct a single-case study. Our rationale for choosing a single case is that our case company is a relevant example of a Norwegian value shop organization. We chose a holistic design for our case study, because we considered our analysis to be of Making Waves as a single unit, not several units within the company. A holistic design is advantageous when the relevant theory underlying the case study itself is of a holistic nature, or when no logical subunits can be identified (Yin, 2009). Theory about organizational ambidexterity is holistic in its nature, due to the fact that the balance of exploration and exploitation must be achieved at the organizational level. Although Making Waves has identifiable subunits in the form of business units and departments, our case study does not focus specifically on these, because almost all value-generating work is executed in multidisciplinary project teams with members from across the whole organizational structure. After agreeing to collaborate with Making Waves, and deciding on a case study design, we started the work of selecting informants.

4.2.3 Preparation
Case study research is one of the most difficult types of research to do, due to the absence of routine procedures. Careful planning of the research is therefore crucial (Merriam, 2002), and we did so by selecting informants and creating an interview guide.

Selection of interview objects
We asked Making Waves to send us their organizational chart, and we used this actively when choosing our first round of interview candidates. We tried to select a

variation of interview candidates, with different levels of management responsibility, ranging from the CEO to non-management employees. A list of the people we wanted to interview was sent Making Waves as well as a request for their suggestions on additional informants. When making our selection we decided to leave out employees from the Polish divisions, due to the fact that we wanted to focus on the Norwegian office, as this was our first criterion when choosing our unit of analysis. The focus of our thesis has been on the Norwegian office and Norwegian culture; also we did not have the resources to set up interviews with the Polish department. This will be elaborated on more in subchapter 4.5. In collaboration with Making Waves we ended up with 16 interview candidates in the first round of interviews, and we contacted the candidates ourselves after gaining permission to do so. We ended up scheduling and conducting 13 interviews between 11 and 18 February 2013.

After transcription and a preliminary analysis of our material, we decided to do a second round of interviews. During our first round of interviews, some employees were mentioned again and again, and we wanted to talk to them specifically. We also found that our sample was predominated by informants with design backgrounds. We increased our sample with employees from technology and strategy, without management responsibility. We also included the Minister of Culture, the director of sales and the manager from the human resources department. From March 18th to 21st we interviewed another five people, and a complete overview of the informants.

We believe that we have obtained a representative sample, due to the wide spread of responsibility and seniority, and by having both founder and non-founder candidates with or without ownership of the company. Although our sample includes more people from the Experience Design business unit than other units, we do not think that this weakens the representativeness of the sample, because the Experience Design unit is one of the larger units with the most departments. In order to gain a good understanding of the different roles that are critical in projects, we felt it was more important to speak with people from the different departments in Experience design, than to speak to more of the same type of employees from the other business units.

We have created a graphical overview of the variation in our selection of informants (Figure 4.1). We have grouped the employees together by business unit responsibility or business unit belonging in the overview, whether or not they have a managerial position, with an exception for informants that hold a top management position. The informants with a top management position are not placed in the top management rectangle instead of in the business unit they belong to.

Table 4.4 Overview of the informants.

#	Title	Business Unit	Department	Years in MW	Years in merged comp.	Tot.	Co-Founder	Stock-holder	Stock %
1	Director Lifecycle	Lifecycle	Top management	3	4	7		X	0.1
2	Director People & Processes	People & Processes	Top management	12		12	X	X	9.9
3	Project manager	People & Processes	Project management	1		1			0
4	Manager Project Management	People & Processes	Project management	12		12	X	X	2.67
5	Senior Project Manager	People & Processes	Project management	8		8		X	0.1
6	Senior Designer / Front-end	Experience Design	Interaction Design	3	6	9			0
7	CEO	Administration	Top management	4		4	X	X	8.6
8	Manager .NET	Technology	.NET	9	3	12	X		6.13
9	Manager Service Design	Experience Design	Service Design	1	5	6		X	0.72
10	Interaction designer 1	Experience Design	Interaction Design	3		3			0
11	Interaction designer 2	Experience Design	Interaction Design	3		3			0
12	Manager PMO	People & Processes	Processes	7		7			0
13	Director Experience Design	Experience Design	Top management	3		3		X	0.76
14	Senior Strategy advisor	Experience Design	Strategy	3	5	8			0
15	Senior System developer	Technology	.NET	3		3			0
16	Mister of Culture	Experience Design	Experience Design	12		12	X	X	1.25
17	Director of Sales	Sales	Top management	12		12	X	X	12.95
18	Human resource manager	People & Processes	People	3	1	4			0

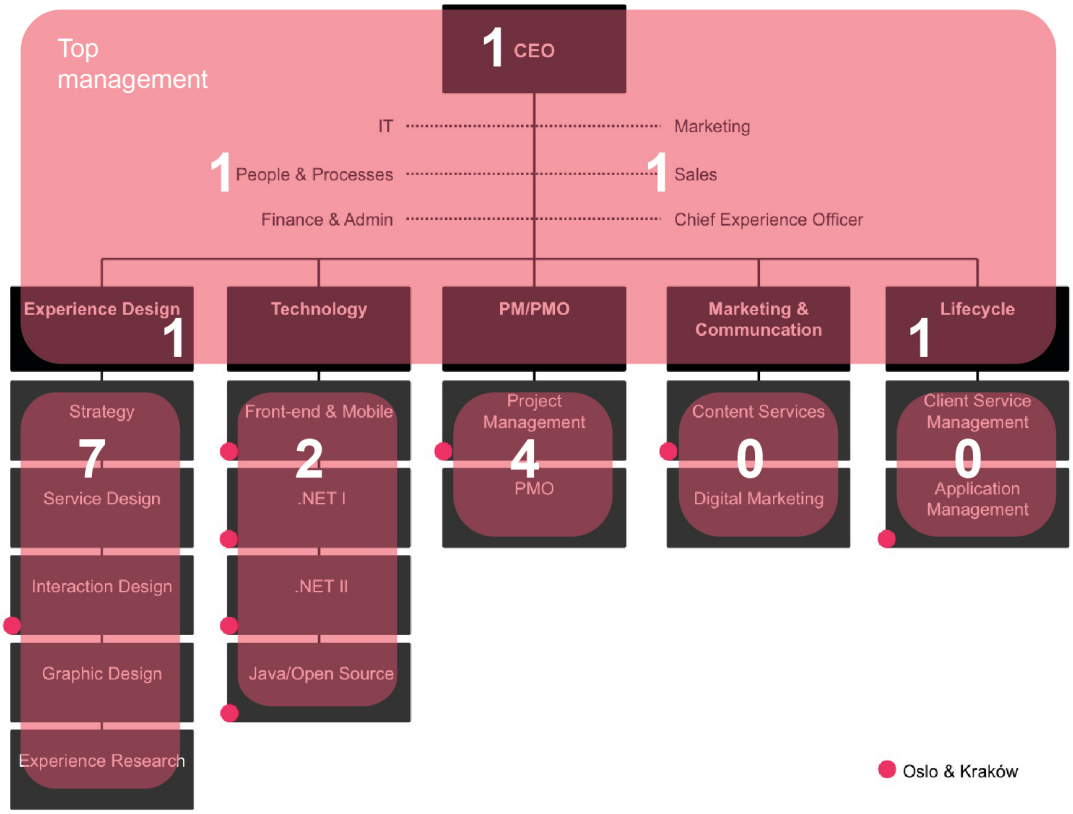


Figure 4.1 Visualization of selection of informants.

Creating an interview guide

To further prepare ourselves for the data collection, we created an interview guide. An interview guide is a brief list of memory prompts of areas to be covered (Bryman, 2008). The interview guide was revised after the first round of interviews, as we discovered that some of our questions were unnecessary. We also decided to replace some of the questions we felt we couldn't get more interesting data on with other questions. Both guides can be found in the appendix as Appendix 11.3 and Appendix 11.6.

We tried to structure the interview around the approaches to ambidexterity that we have summarized in subchapter 3.7 in both interview guides. We also tried to include questions that were open and to some degree vague to counteract response bias in our answers, which is when the informants give the answer they believe the interviewer wants to hear. Asking open questions also give more leeway for the informants to include information that they think is important in their answers. An example of one of our questions is: "What is your interpretation of creative work?"

We brought two recording devices to each interview, securing the permission of the informants to use the devices beforehand. We also gave a consent form with practical information about the interview to each informant (Appendix 11.1), and we explained the purpose of the interview.

4.2.4 Data collection

When collecting case study one should, according to Yin (2009) use multiple sources of evidence, create a case study database, and maintain a chain of evidence. Using more than one source of data is called triangulation, and it results in more convincing discussions and conclusions (Stake, 1995). Our main source of empirical data is the interviews, but to get a richer and more in-depth understanding of the case company, we added observations and written material as secondary sources to nuance the picture. We have also tried our best to adhere to the two other principles for data collection presented by Yin (2009), by creating a case study database and by striving to maintain a chain of evidence through our work. Our case study database is comprised of a structured Dropbox folder, containing relevant theory articles and all the empirical data. We have used Google drive to systemize our analysis and write our thesis. The rest of this subchapter will concern itself with explaining how we collected our data.

Interviews

All interviews were carried out in the offices of Making Waves, either in small meeting rooms or in their cafeteria. The interviews were semi-structured and focused. Semi-structured interviews refer to a context where an interviewer uses an interview guide, but can vary the sequence of questions and ask further questions (Bryman, 2008). A focused interview entails a person being interviewed for a short period of time, for instance an hour (Yin, 2009). We chose this interview form because we wanted to speak to several employees and therefore had to keep each interview short. We also wanted the freedom to follow up on answers we thought were interesting, even though the follow-up questions were not in our interview guide. All three researchers were not present at all interviews, so we let the absentee transcribe the respective interviews. To better the objectivity, we sought to alternate who took the role as lead interviewer, who transcribed the interview and who analysed the different interviews. Table 4.6 in subchapter 4.2.5 shows the distribution of the different tasks.

Observation

We decided to use direct observations as an additional data source to interviews. Direct observations are useful due to the fact that they provide researchers with realistic and contextual data (Eisenhardt and Graebner, 2007).

We observed three meetings when we conducted the last rounds of interviews. We sat quietly by the wall during the meetings, and noted things we thought were interesting. We obtained the data in form of written notes that were used in the discussion of our interviews, although we do not include them in this thesis.

Table 4.5 The observed meetings.

Type of meeting	Participants	Duration	Comment
Portfolio and prioritizing meeting	Top management and business unit managers	01:30:00	There was some traffic in and out of the meeting
Employee meeting	All employees	00:30:00	The meeting was held during lunch
Strategy group meeting	The strategy department	01:00:00	Not all members were present

Other written material

We were given access to several different documents that we used in our case study. These documents included: the organizational chart, the meeting schedule, the 2012 annual report, corporate checklists, and the employee contact lists. We also used publically available documents, such as the Making Waves website and other online data sources to increase our understanding of their business context.

4.2.5 Analysis

One of the challenges with qualitative research is that it generates a lot of data (Bryman, 2008). This was something that we could relate to, as the transcribed interviews alone added up to 318 pages of dense text. With few straightforward rules about how to carry out the analysis, these large bodies of unstructured text seemed at times insurmountable. We divided the process of reviewing the interviews into analysis, discussion and linking theory with data.

Analysis of empirical data

We chose to use a strategy for analysing data that is inspired by grounded theory (Strauss and Corbin, 1998). The grounded theory strategy aims to generate theory out of empirical data by achieving a close fit between the two. The process involves theoretical sampling, coding and theoretical saturation (Charmaz, 2006).Theoretical sampling is the process of collecting data while at the same time coding and analysing the data to decide which data to find next. Coding has to do with breaking down the theory into component parts until the theory cannot be divided further. Saturation describes the point where no extra data can be found to illuminate a category, and no further concepts can be created by the method of coding (Charmaz, 2006).

The outcomes of grounded theory are categories created from concepts, hypothesis and theory. Categories are concepts that have been elaborated on until they are thought to represent a real world phenomenon, and hypothesis are initial hunches about relationships between concepts (Charmaz, 2006).Theory, in the context of grounded theory, is a set of well-developed categories that are related through statements to form a theoretical framework that explain a relevant phenomenon (Strauss and Corbin, 1998). We started out by transcribing the interviews, and we included just about all the words that were exchanged when we transcribed, as well as sounds. As mentioned earlier, all three of us tried to work on each interview. Table 4.6 shows how we distributed the different tasks, as well as the length of each interview. The reasons for the varying length of the interviews are that some

informants had more to say on some questions than others, and that some informants had more available time than others. This may result in a situation where some informants become more influential than others in the discussion of the data.

Table 4.6 The interviews

Interview #	Duration	Interview lead	Transcribed by	Analysed by
1	01:16:40	Tharald	Tharald	Helge
2	48:50	Tharald	Helge	Kari
3	51:09	Kari	Kari	Tharald
4	01:03:57	Kari	Kari	Tharald
5	55:02	Tharald	Helge	Kari
6	01:22:51	Kari	Tharald	Helge
7	01:11:11	Tharald	Helge	Kari
8	59:17	Kari	Kari	Helge
9	53:05	Tharald	Kari	Helge
10	01:00:16	Helge	Kari	Tharald
11	01:07:07	Helge	Tharald	Kari
12	56:40	Helge	Tharald	Helge
13	01:06:39	Kari	Tharald	Kari
14	56:06	Kari	Kari	Tharald
15	54:48	Tharald	Helge	Kari
16	53:54	Helge	Helge	Helge
17	01:18:04	Kari	Tharald	Tharald
18	01:08:43	Tharald	Helge	Tharald

After transcribing the interviews, we gathered all of the transcripts in one document, and decided to use open coding to find categories. Open coding consists of breaking down and categorizing data, which yields to concepts that will later be used to create new categories (Bryman, 2008). We read through each interview and created concepts such as “management”. Then we read through the interview again and divided the first concepts into sub-categories, such as “Human resource management”. We continued until we could no longer divide our concepts into smaller categories. After labeling the different concepts, we tried to group them into overarching categories. This process involved long discussions and more coding, and we found ourselves going back into the theory from our literature review as well. In the end, we managed to decide on three core categories we felt were relevant to

our theory and represented real-world phenomena. These categories were: 1) Organizational culture, 2) Knowledge management and 3) Strategic orientation.

After creating our main concepts, we sorted the relevant empirical data between them. We included empirical data in the form of our representation of the interviews, as well as quotes. We translated the quotes from Norwegian into English, since our thesis is written in English. Also we removed sounds such as “ehm” and “ehhhh”. We ended up with a document containing our three main concepts associated data, which in this thesis is called chapter 6 Empirical data The next step was to discuss the empirical data, and link our findings with theory.

Discussion of empirical data

After creating our core categories, we went through a long process of discussing what the data meant, how one could understand the propositions in light of the data, and how we could link our findings to other theories. We started out with several hypotheses about the relationships between the different concepts we had created, and we discussed these in relation to our research question and propositions. The process involved going back to subchapter 3.5 to look for examples of where our empirical data conflicted with what we expected from theory. We also reviewed our propositions, and found that some were no longer relevant due to the fact that we did not have empirical data to support or refute them. We iterated several times between the theory and the empirical data, and altered some of the propositions so that we could discuss them on the basis of both. After much iteration we came to a conclusion about how we would like to structure the discussion and link the theory up to the empirical data.

Linking theory with empirical data

We decided to discuss the data from our core categories in chapter 6 in relation to the four main approaches to ambidexterity from subchapter 3.5. We visualized this setup as a matrix, displaying our empirical categories vertically and the theoretical approaches horizontally. Our propositions involved at least one empirical category and one of the theoretical approaches, and visualized the relation as grey ellipses or circles between the areas they were related to. The result is shown as Figure 4.2.

We then discussed each proposition in the light of the empirical data categories and the theoretical approaches. We tried to sum up each discussion with bullet points or tables when possible to make sure that we did not lose sight of our arguments when concluding.

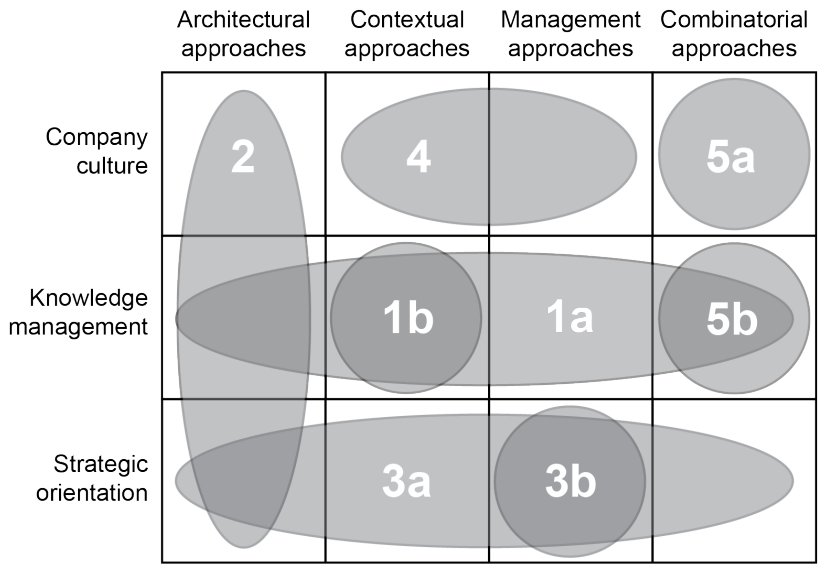


Figure 4.2 Linking theory with empirical data.

4.2.6 Conclusions

In our discussion, we ended up supporting three, partly supporting four propositions, and not being able to support one proposition. We made new theories when possible, and suggested some practical implications for Making Waves.

4.3 Quality Criteria

All research involves the risk of making mistakes that will affect and skew the end outcome. This is especially true for qualitative research, such as case study research designs, due to the fact that the research design has few strict rules, takes long time and generates large amounts of data (Eisenhardt and Graebner, 2007, Flyvbjerg, 2006) .

Lincoln and Guba (1985) describe trustworthiness and authenticity as criteria for assessing a qualitative study. Trustworthiness has four sub criteria: credibility, transferability, dependability and conformability. The criteria authenticity has the sub criteria: fairness, ontological, educative, catalytic and tactical authenticity. We have presented the criteria and sub criteria together with their definition and the measures we have taken to ensure quality of each criterion below. The two tables present an important overview of how we have ensured that the quality of our case study is consistent.

The measures we took to ensure credibility, that leads to trustworthiness, were to make sure that our interviews were conducted and transcribed in an orderly manner, and that our informants were well aware of their rights to anonymity. To make our study more transferable, we made sure to select many different types of informants, and to help guarantee dependability we created a case study database and an interview guide. To ensure conformability, we crafted a consent form and were open about our personal goals for the study from the start.

Table 4.7 Quality criteria.

Sub criterion	Definition	Measure taken to ensure quality
Credibility	Whether the researchers observations match with the theoretical ideas they develop	When transcribing we included all the words and sounds to make sure we didn't disregard anything in our analysis. Empirical data was sent back to the informants for review, to make sure that we agreed on what had been said. Use of multiple data sources (interview, observation, written material). Including a lot of empirical data in the form of quotes. Using tape recorders to ensure that no data was lost. Iterating on research questions and propositions throughout the process.
Transfer-ability	The degree in which findings can be generalized across social settings	Since we had a single-case we could not replicate process to ensure transferability. Instead we used a substantial amount of data to link to our empirical findings. Having a fairly large and varied selection of informants.
Depend-ability	The degree in which the study can be replicated	Creating a case study database with all interviews and other relevant material. Using an interview guide and sticking to the themes during interviews. Having an overview of the project in the form of our written thesis.
Conform-ability	Ensuring that the researcher has acted in good faith	Talking about what our personal goals were for the case study. Crafting a consent form together in the research group.

Table 4.8 shows the measures we to ensure authenticity. Most notably, we made sure that the informants could review our empirical data before we submitted our thesis, and interviewed people from all levels of the organizational hierarchy.

Table 4.8 Quality criteria and the measures we have taken to ensure authenticity.

Sub criterion	Definition	Measure taken to ensure quality
Fairness	Ensuring that the research represents the view of all informants	Interviewing an array of employees, from the CEO to non-management positions.
Ontological authenticity	Ensuring that the research has helped informants understand their social environment	The thesis will be sent to Making Waves when we are finished, and hopefully they learn something about the company while reading it. Also we have sent them the empirical data beforehand.
Educative authenticity	Whether the research helps informants understand the perspective of the others	We are interviewing employees in all positions, and the thesis will be available to all participants in our case study. By that we hope that they can learn something about each other by reading their input in the empirical data.
Catalytic authenticity	Whether the research acts as an impetus for the informants to change their circumstances	We hope that any information we have helped uncover will be significant enough to motivate the company to act on it.
Tactical authenticity	Whether the research empowers the informants to change their circumstances	Our goal has been to create new theory rather than to present strategic advice. Still the practical implications that we uncovered in our conclusion will be shared in the thesis.

4.4 Ethics and anonymity

It is important to consider the ethical principles when doing research. Diener et al. (1978) present four main areas of ethics, which a researcher should be cautious of: 1) Harm to participants, 2) Lack of informed consent, 3) Invasion of privacy and 4) Whether deception is involved. We will not elaborate on each principle, but discuss the measures we have taken to make sure that we are considering the ethical principles.

Harm to participants can entail making the informants lose their self-esteem, become stressed or perform shameful acts (Bryman, 2008). We believe that our written accounts of the informants shed a positive light on them, and that there is no risk of offending any of them in our thesis. Our questions have largely been regarding their workplace and their jobs, which are not considered sensitive subjects. We presented the informant with an informant consent form before we interviewed them, and explained what our goal with the interview was. We explained who we are and the aim of our thesis. We also explained that we were going to use a tape recorder, but that the recording would not be made public, and that the informants would be anonymised, and that they would have the chance to examine the empirical data before publication. We also presented ourselves, and what our purpose was in each of the meetings we observed. We therefore do not consider lack of consent to be an issue in our research. We still acknowledge the fact that it is quite difficult to present

participants with absolutely all the information they may need to make an informed decision. The fact that we did not wish to use the exact terms exploration and exploitation, to avoid response bias in the informant's answers, may have contributed to that.

The informants' names are replaced with their business titles in the empirical data, but we admit that this does not provide complete anonymity for the informants that have unique roles or top management roles. Although we have not mentioned the CEO's name, it would not be difficult for a person reading our thesis to figure out who the CEO of Making Waves is. We have also described his personality in greater detail than other informants, due to the fact that one of our propositions calls for this information. This puts us in a position where we may run the risk of invasion of privacy, which (Bryman, 2008) describes as upholding the privacy of the informants and keeping the information they share confidential. We sent our empirical data chapter back to all informants so that they could let us know if they felt that their privacy was invaded, and we have been very cautious with the written and audio material that we have gathered to ensure confidentiality.

We are pretty certain that we have not broken the ethical principle of deception. Although we did not explain our thesis in the exact theoretical terms, we explained it well enough to give our informants a fair understanding of what we intended to do. It would not be nice, nor practical, to lie about the purpose, because it would directly counteract the goal of trying to understand how Making Waves balances exploration and exploitation. We would also like to add that none of us authors has been working for the case company before, or has signed any agreement on commencement of employment after finishing our master's degree. Now that we have discussed the ethics of our thesis we will move on to the critique of methodology.

4.5 Critique of methodology

When creating a case study, there will always be a risk of inherit weaknesses in the design. The first step in counteracting weaknesses that might render the case study useless, is to be aware of which parts of the design can be criticized. This subchapter includes a summary our critique of our choices, and how they relate to the quality criteria and ethical principles that we have discussed in the previous subchapters. We have decided to present this information in a table format, where each table represents a phase of the case study as presented in Table 4.2 in subchapter 4.2. Each table describes the particular step of the phase, a critique of our choices in that step, the negative consequences of the choices and a comment on why we made the choices despite the critique. After each table we will summarize briefly, and the next subchapter will present an overall summary of our case study research design, as well as our own reflections.

Table 4.9 Criticism, consequences, and comments for the planning phase

Steps	Critique	Consequences	Comment
Research question	Unsettled research question before literature review.	May make it difficult to navigate through the theory, and can also weaken dependability.	The unsettled research question allowed us to iterate until we found something that we were interested in.
Literature review	No rigorous regime of using strictly predefined search terms, or only referring to specific literary sources.	May weaken dependability.	Our loose structure made us less constricted, and we were able to explore the theory more freely.

As one can see in Table 4.9 from our critique of the planning phase, we did not have a clear research question, or a strict plan for how we wished to carry out our the literature review. This gave us the flexibility of finding an interesting research question and our own approach to theories along the way. We did not have much knowledge about the field of innovation management and ambidexterity beforehand, and we therefore felt that a flexible plan would help us zone in on the interesting research question while in the process of learning more about the field.

Table 4.10 Criticism, consequences, and comments for the design phase

Steps	Critique	Consequences	Comment
Revision of research question and propositions	No clear defined propositions before the empirical data was collected.	May make it difficult for others to follow our process, and weaken dependability.	Allowed for an iterative process.
Choice of unit of analysis	We chose a company that has been successful and profitable for a long time.	The fact that things are going well may influence our informants' critical thinking, and therefore weaken catalytic authenticity.	The success may be a result of a good balance of exploration and exploitation, which in fact is part of our aim to observe in our research.

We did not have defined propositions before we created our case study in the design phase (Table 4.10). Not having propositions provided flexibility to find the propositions that best fit our research question through an iterative process.

We chose a successful and growing company for our study, which may have resulted in skewed information, since employees in a successful company may be unreasonably appreciative of their company. Employees in a declining company might have better suited for identifying issues with their employer. Still, the success can be a result of ambidexterity, which is exactly the concept we have set out to study.

Table 4.11 Criticism, consequences, and comments for the preparation phase

Steps	Critique	Consequences	Comment
Selection of interview objects.	Possible over-representation of informants from Experience Design, less from technology and marketing.	May distort the focus and weaken fairness.	Experience Design has a lot of different sub-units, so we did not interview lots of people with the same position.
	Did not include anyone from the Polish division in our selection.	May weaken the fairness and the educative authenticity.	We did not have the resources to do this. Also, we have been clear about focusing on the Norwegian culture.
Creating an interview guide	No clear case study protocol to accompany the interview guide.	May weaken the dependability of our research.	Is not as important for single-case studies.
	We did not practice interviewing with our guide.	Some of us might have asked questions that could be seen as an invasion of privacy.	Tharald has journalism experience, so we let him interview first to learn from him.

The most notable critique from the preparation phase (Table 4.11) was that we did not include any employees from the Polish division in our selection of interview objects. It is obvious that this can weaken our research, but we have several good reasons why we made this choice. First and foremost we were especially interested in the Norwegian context of ambidexterity, which is also why one of the criteria for our selection of unit of analysis was that the company were to be Norwegian. Secondly, we did not have the resources to fly to Poland, or to have the Polish employees come visit us in Norway. Thirdly, the language barrier could have lessened the quality of the interviews.

As one can see from our critique of the data collection phase (Table 4.12), we planned our observation in terms of how we would collect the data or what we would use the data for. Although the observation helped us gain a more thorough understanding of Making Waves, we should have been more structured in our approach to make the most of the data. Despite not having decided upon how to use the written material we collected, we were able to obtain important information from them.

Table 4.12 Criticism, consequences, and comments for the data collection phase

Steps	Critique	Consequences	Comment
Interviews	Varying length of interviews.	May result in some informants being more influential than others.	Can be explained by different talking-speeds.
	Not all interviewees read the informant consent form.	May result in lack of informed consent.	We explained our purpose in addition to giving out the consent forms.
Observation	Extremely positive atmosphere in meetings, perhaps due to the good results the company are achieving.	May influence our thinking, and result in a description of the company that weakens ontological authenticity.	The atmosphere could very well also be a part of their culture.
	Few notes were taken and none were used in the chapter presenting empirical data.	The small sample, and ad hoc notes did not contribute significantly in our analysis. We could have used our resources to conduct more interviews.	Even though we didn't use the data, the input helped us understand the company and the informants better.
Written material	No clear goal of how the written material would benefit our thesis.	May result in a random selection of non-standard documents, and therefore weaken dependability.	We found several uses of the documents in retrospect.

Table 4.13 Criticism, consequences, and comments for the analysis phase

Steps	Critique	Consequences	Comment
Discussion of empirical data	Translating interviews from Norwegian to English.	May skew the meaning of the sentences and weaken credibility.	Was necessary due to the thesis language.
	Removing sounds such as "ehm" and "ehhhh", although these are included in the transcript.	May remove context and weaken credibility.	Most likely this action made the empirical data more readable.
Linking theory with data	Trying to fit empirical data into a theoretical framework.	Our eagerness to find relations between the two can create a vague connection, and may weaken the credibility and ontological authenticity.	We only make suggestions about new theory where we see that the theory and data converge or conflict on several points.

In the analysis phase (Table 4.13) we altered the data we had collected by translating the Norwegian interview to English, and by removing words such as “ehm” and “ehhh” to improve readability. This can weaken credibility by removing nuances in the language that may result in a different understanding of the text. This was a necessary measure, since we translated our material to English, and some phrases and expressions were not translatable. We did our best to be extremely careful when translating.

Table 4.14 Evaluation of the phase of sharing the results.

Step	Critique	Consequences	Comments
Conclusions	Inexperienced researchers.	May weaken all quality criteria of our research.	We have received guidance from more experienced researcher.

In the phase of sharing the results (Table 4.14), the central critique is our own inexperience as researchers. This critique relates to all other phases of the research design, and can weaken the quality of our final conclusions. We have educated ourselves by studying literature on research design to counteract this contingent weakness, and we have had frequent meetings with our supervisor. We will now proceed to an overall summary of and reflections on our methodology.

4.6 Summary and reflections on methodology

Although we have made several choices in our research that can be criticized, we have counteracted the most prominent weaknesses in our case study design. The fact that we did not have a clear research question, fixed propositions and strict plan in our literature guide allowed us to iterate as we moved through the theory, and end up with a well reasoned and current research question. Our choice of focusing on Norwegian business culture, and thereby the Norwegian office of our case company, justifies our choice of not interviewing Polish employees. The negative effects that can be caused by the unstructured approach to the observation should have been mitigated by the fact that we were very structured in our approach in the interviews. With 18 interviews conducted according to the guidelines in social research literature, we still have a sound foundation of empirical data, and the observations and written helps us to triangulate our data. Our inexperience as researchers can obviously affect the quality of our case study design, but we believe we have taken the appropriate measures to counteract those negative. This has resulted in a sound case study with well thought out ways of counteracting possible weaknesses in the design. Still, when reflecting on the process, we have realized that there are several things we could have done differently if we had more time. Two ways of improving and extending our case study would be to interview more people within the organization, and broaden the scope of our theoretical focus to include external approaches to ambidexterity as well.

To extend this research, we would also recommend combining the four criteria we used to guide us in our choice of case company differently, the four criteria being: (1) Norwegian (2) service company, with a clear (3) innovative edge and (4) recurring economic success. One could, for instance, keep criteria 2), 3) and 4), but choose to

study a company in a different country than Norway. By doing so, one would be able to isolate ambidexterity in a company with a Norwegian business culture, by comparing it to other companies with different cultures. One could keep all criteria but 4) constant and choose to study an unsuccessful company instead of one that is successful. If other scholars were to contribute with more single case studies, it would be possible to create a basis for doing a cross case analysis. This is something that future students may consider as a possibility for their master theses.

The fact that there were three of us has held both advantages and disadvantages. Each decision we made took longer, because we wanted the whole group to agree, and it is difficult to maintain a complete overview of the thesis at all times. The advantages of having three group members are the good discussions due to different perspectives and academic backgrounds from both industrial engineering and industrial design. Being three persons, we were also able to collect more empirical data than we would be able to on our own. We have definitely gained a great deal of respect for qualitative research, as we have gained a greater understanding of the complexity it entails. The next two chapters will present our selection of empirical data, starting out with a chapter with a description of our case company and continuing with a chapter with empirical data in the form of quotes.

5 Case Company

In the previous chapter, we described the methods used to gather data for this thesis. In this chapter, we will present relevant data on Making Waves from written sources, observations, and a presentation held by their director of People and Processes. We will describe our perception of their offices and their company profile, together with a description of their business system, size, and turnover. The information in this chapter will serve as a supplement to the interview data presented in chapter 6**,** and we will use the information from both in our discussion in chapter 7.

5.1 Overview and brief history

Making Waves is a consultancy firm that develops, designs and operates digital services. The company has a total of 300 employees that are specialized within the fields of strategy, design, technology and communications (Hellem, 2013). Making Waves was established in 2001 by a group of people that believed there were opportunities in the combination of design, technology and the Internet (Hellem, 2013). Making Waves was profitable from the year one, and have since then achieved a constant growth in annual sales. The company established a Polish division in 2004 and continued to strengthen their technical expertise by acquiring the IT-company Trimanet (Making Waves, 2013).

Making Waves acquired the design-agency deVille in 2005. In 2008, the company had 130 employees and an increase in income despite the unstable economy (Making Waves, 2013). In 2010, Making Waves acquired the company Tarantell who bear a close resemblance to Making Waves. Their latest acquisition is the small company Zoot and was conducted in 2012. In this way they established their own business unit within the emerging market of service design. The current CEO made his entry in 2009 (Making Waves, 2013). Making Waves of 2013 aspires to be a creative and an innovative consultancy firm, creating user-oriented computer systems for other companies. Their goal is to run as many projects as possible in-house, thus keeping employees involved with projects within Making Waves office spaces (Hellem, 2013).

5.2 Offices

This chapter is a summary of our observations of Making Waves that we made while spending time in their offices between interviews. We present this overview of the physical working space because it is relevant in our discussion in chapter 7. Making Waves has its office space in central Oslo, right next to Det Norske Teatret, which is the second largest theatre in Norway, and only a block away from the Norwegian parliament building. The offices used to be two separate buildings, where the newspaper Dagsavisen occupied one, and a small art gallery the other. The art gallery section is easily the most visible from the street, with its large windows displaying the interior of Making Waves' cafeteria. The cafeteria itself strongly resembles a public café, with scattered tables and a barista working behind the coffee bar. The top management have put a lot of effort into making the cafeteria as welcoming and relaxing as possible, enabling it to be the main area for meeting colleagues and receiving visitors. Employees are served warm lunch, and tend to eat at the same time, filling up most of the seats.

The other part of the building houses workspaces and meeting rooms. It also houses the reception, which, as with the cafeteria, has been made to be as welcoming as possible. It has warm lighting, a coffee table with magazines, relaxing music and two receptionists. Most employees at Making Waves work in open landscapes, spread across three floors. People with different skills are partly mixed together in the open landscapes. But the main bulk of administration, management and project leaders are located on the first floor, whereas programmers and other technical personnel are on the second floor. Designers are located on the third floor. The ground floor houses no office spaces, only conference rooms, the reception and the cafeteria.

There is not much elbowroom for people working in the open landscapes, and sound carries easily, requiring the employees to remain relatively quiet. Project rooms are available for groups working together, making their communication much less obtrusive for others. Also there are glassed conference rooms, which any employee can reserve both for internal meetings and meeting with customers and other external parties. These open, white-walled rooms seem designed to communicate Making Waves' creative profile. They have slogans on the walls such as “"Design is not just what it looks like and feels like. Design is how it works”. Otherwise the office environment is sparsely decorated.

5.3 Business system and organizational system

A business system can be defined simply as “how a firm makes money”, or in a more formal manner as “the specific configuration of resources, value-adding activities and product/service offerings directed at creating value for customers” (De Wit and Meyer, 2010). Making Waves' business system is to provide their customers with tailored digital services such as mobile applications, e-commerce websites and intranet systems. They combine employees with different fields of specialty in multi-disciplinary project teams, and pride themselves in having a user-centred approach in their development process.

The organizational structure refers to the gathering of tasks and people into smaller groups, due to the fact that division of labour is necessary for an organization to function efficiently (De Wit and Meyer, 2010). A functional structure is based on different value-adding activities being carried out. Figure 5.1 shows Making Waves' organizational chart, and short descriptions of the business can be found under the figure (Hellem, 2013). The five main business units within Making Waves are Experience Design, Technology, Project Management (PM), Marketing & Communication, and Lifecycle. Each of these business units contributes with a separate activity linked to the development of digital services. The Polish division deals almost exclusively with technological solutions. All units that have employees in Poland have a red dot in Figure 5.1. Although employees are placed in vertical business units, most work is project based, and therefore employees are organized in multidisciplinary teams that stretch horizontally over business units.

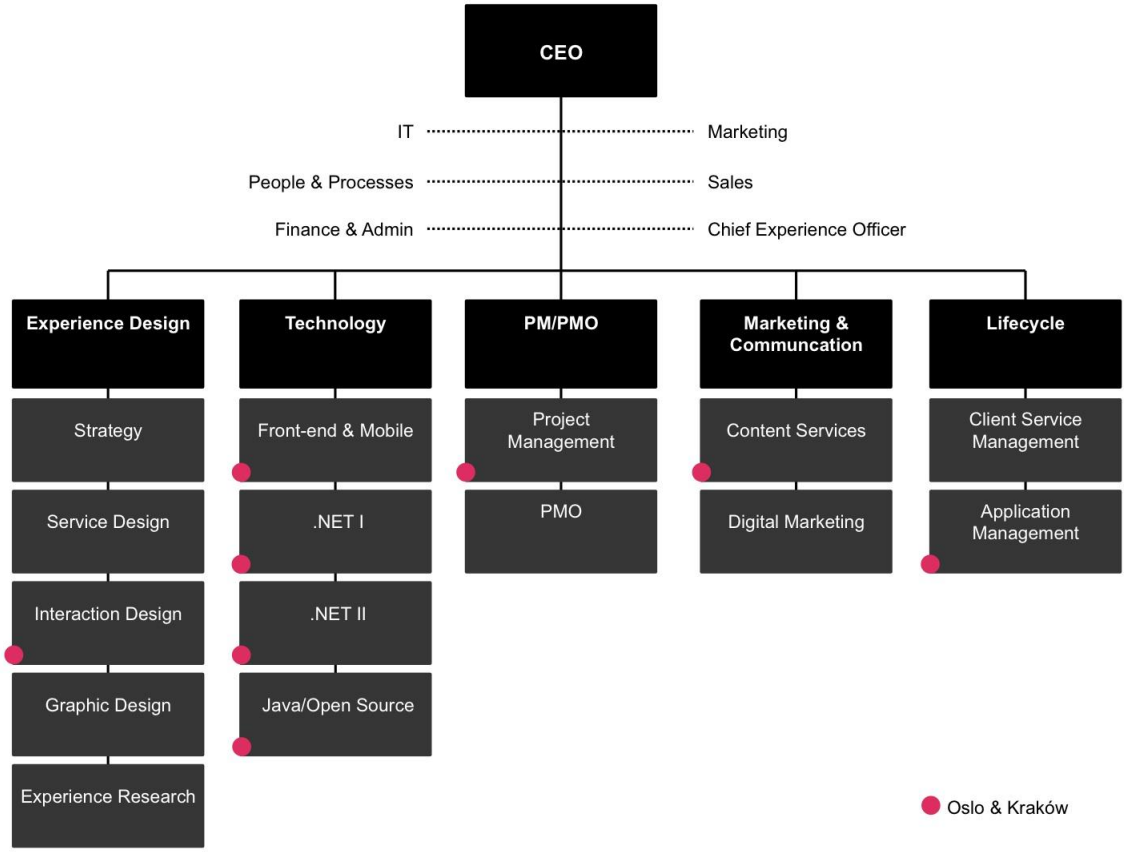


Figure 5.1 Making Waves' organizational chart.

The experience design unit

Experience design is the main design unit, with several sub units that deal with designing user-centric products. The sub unit Strategy is the consultancy part of Making Waves, with design-oriented employees guiding other companies. Service design is a brand new design unit that designs complete experiences for customers, both in terms of software, hardware and the user's surroundings. Interaction design works with human-computer interaction. Graphic design is the act of making visual messages understandable for humans. Experience research collects user data for deciding how to create products.

The Technology unit

The technology unit is divided into sub units based on digital platforms and programming languages. Front-end & Mobile is a joint unit for two different disciplines: Front-end is the part of computer systems that users interact with, whereas Mobile is a collection of all mobile platforms, such as smart phones and tablets. .NET I and .NET II are two units responsible for developing in Microsoft's .NET programming language, whereas Java/Open Source is responsible for developing in the Java programming language and dealing with Open Source products.

PM/PMO
Project Management is the unit with project managers, who are run the various projects within Making Waves. PM stands for Project management, and PMO stands for Project management office, a newly created unit that is responsible for improving the projects' transition from phase to phase, particularly from the sales to project start up phase.

Marketing & Communication
Content services either create text and other content for websites, or guide other companies on how to do it themselves. Digital marketing helps other companies market themselves in the digital domain.

Lifecycle
Lifecycle is the unit responsible for maintaining systems after they have been created through projects. Client Service Management is responsible for making systems run on newer clients. Application management is responsible for maintaining and develop existing systems further by adding minor features.

5.4 Growth

Making Waves has grown steadily since being founded in 2001, with the exception of 2010-2012, where they acquired and then merged with Tarantell, making a large jump from 180 to 281 employees (Figure 5.2).

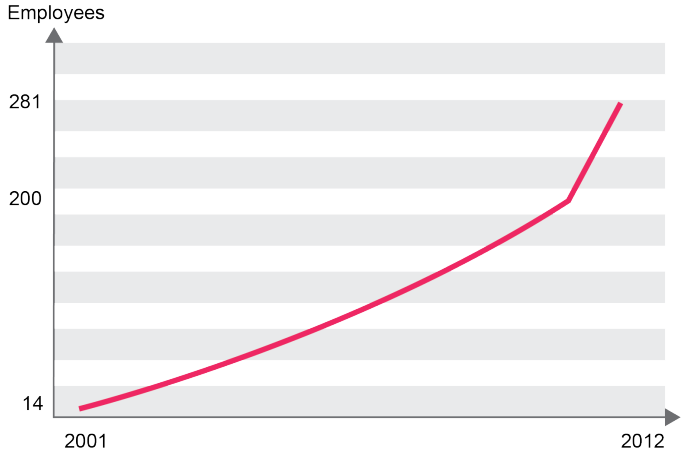


Figure 5.2. The development of number of employees in Making Waves.

Looking at company development from 2009 to 2012 (Hellem, 2013), we see that Making Waves lost money in 2010, which, according to management, was due to expenses when acquiring Tarantell. In their yearly report from 2012, the board of Making Waves expects a steady growth in the coming years, mostly from projects abroad, with the Norwegian market remaining stable (Hellem, 2013).

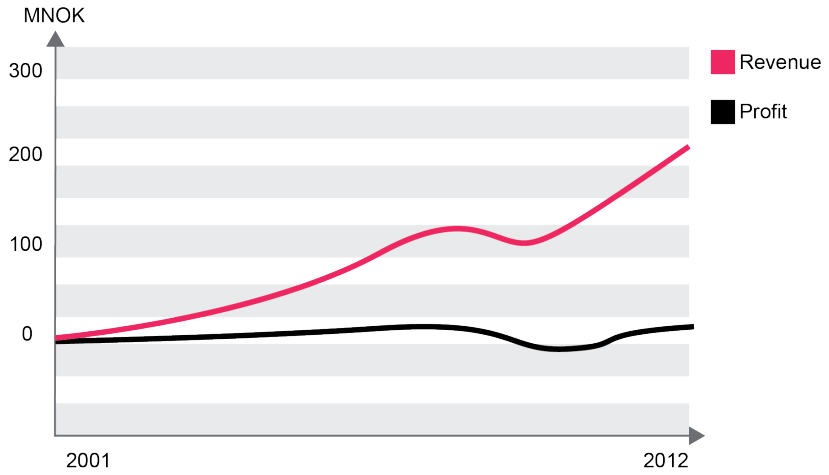


Figure 5.3 Making Waves' revenue and profit.

5.5 Summary

Making Waves is a consultancy company with a creative profile. They create computer systems, digital strategies, marketing campaigns, and content for their customers. The work is project based and performed in multidisciplinary teams. Making Waves is divided into several business units, and all the technology units have employees in Poland. Making Waves has grown considerably in size since 2001, and had a turnover of 220 million kroner in 2012, with 281 employees. We have presented an overview of Making Waves based on written documents and our own observations. In the next chapter, we will present empirical data in the form of selected excerpts from the 18 interviews we held, which again will be used for discussing our propositions in chapter 7.

6 Empirical data

In this chapter, we will state our most relevant empirical findings. Most of the collected material is in the form of interviews, and we will therefore present relevant quotes within our three main topics: Company culture, knowledge management, and strategic orientation. The topics of this subchapter are not meant to serve as strict classifications, but as a way of grouping together themes that are related to the research question. To increase the level of transparency we have included quite a lot of empirical data in this chapter. The data in this chapter is still just a small part of the transcribed interviews. Before presenting our empirical data, we will describe the three core empirical categories that emerged from our coding and analysis.

Company culture

Company culture is the first topic in the collection of empirical data. In an article from 1990, Edgar H. Schein claimed that defining company culture was a difficult task, because the concept of organizations itself was ambiguous. He stated that it is enough for the purpose of company theory to specify that any definable group with a shared history has a culture. Therefore, if the organization as a whole has had shared experiences, there will also be an overall company culture (Schein, 1990).

In this thesis, company culture includes the working language, values, visions, systems, beliefs, norms, symbols and habits of the entire organization. We see it as the collective behaviour of the employees, and how these behaviours are taught to new members of the organization.

Knowledge management

Knowledge management is the second topic in the collection of empirical data. It can be defined as something that involves blending a company's internal and external information and turning it into actionable knowledge via a technology platform (Alvesson and Kärreman, 2001). Gupta et al. (2000) define knowledge management as "a process that deals with the development, storage, retrieval, and dissemination of information and expertise within an organization to support and improve its business performance".

There is no common definition of the subject, and although we agree with both Alvesson and Kärreman (2001) and (Gupta et al., 2000), we decided to refer to knowledge management in an even broader sense. The topic of knowledge management has to do with all aspects of how a company refines and transfers their current knowledge within the organization, and how the organization acquires new knowledge. This includes all practices and strategies that are used to create, distribute, share and represent both explicit and tacit knowledge. Explicit knowledge can be articulated, written down, and stored, which means that it is easily transferable to other people. Tacit knowledge is based on experiences from activities, and cannot easily be described with words.

Strategic orientation
Strategic orientation is the third empirical category and defined by Kumar et al. (2012, p.133) as “a pattern of responses that an organization makes to its operating environment in order to enhance performance and gain competitive advantage”. This category does not concern its self with Making Waves’ external relations, even though it may seem so. In this category we examine closer how they relate to the outside world, effects the their internal operations. How their project portfolio or strategic direction affects their everyday business. It does not examine how Making Waves achieves ambidexterity through their external relationships, but how these relationships affect their ability to internally achieve ambidexterity.

6.1 Company culture
In this subchapter, we will present the data that we collected on company culture, such as vision, mission statement, design thinking methodology and hierarchy. We will also present the establishment of the position of Minister of Culture and what this title means for Making Waves. We will describe what we found related to how the company includes new members into the organization, and the sharing-culture that several informants mention. Lastly, we will show how autonomy is an central part of managing Making Waves.

6.1.1 Vision and mission statement
Making Waves has a clearly articulated vision and mission. A vision is a long-term aim and a desirable future state, and a mission is a set of principles that forms a base of a company’s identity and guides is decision-making.

Making Waves’ vision is: “A fantastic place to work”, and the mission is “Create delightful experiences”, and they were created in 2010 in the aftermath of what many of the informants referred to as an internal crisis that was solved by excellent leadership. The background for the story was that the top managements decided to create and implement a performance management system right after they merged with the design company Tarantell.

> *They had spent probably a thousand working hours on finishing that system, but when they presented it on a kick-off, most of the employees felt it was like a surveillance system. “Now we’ll find out who knows what, so that we can keep the right people”. That was how many of the employees felt. The presentation lasted one hour, and I think that the guy who held the presentation felt really uncomfortable, that he felt like the big, bad wolf. And then management decided to just axe the whole project.*
>
> *Director, Lifecycle*

Removing the performance management system made Making Waves return to their original values, which was that the founders wanted to make a company in which they would enjoy working. At that point, they created the vision and the mission.

> *We have a vision of being a fantastic place to work, I think that characterizes the company. I think that the people that work here expect it to be that way. We presented the vision in 2010, and were met with smiles from some of our*

employees. This was because we had tried to introduce a performance management system here shortly before.

Director, People & Processes

The vision and the mission seem to be known by most members of the organization.

The vision is "A great place to work", and the mission, which I never seem to be able to separate from the vision. It's something like: "Solutions that excite".

Project manager

In 2010 Making Waves had experienced growth due to the acquisition of Tarantell, and the management were keen on professionalizing the organization. The performance management tool was supposed to facilitate this process, but it was met with great internal resistance. Employees did not wish to evaluate their peers by grading them on different criteria and some felt "reduced to a number". Although thousands of hours were spent on the system, the top management listened to their employees, and it was rejected.

The new vision was created in parallel with a new strategy for how to manage Making Waves. The new strategy had its basis in self-determination theory and the goal was to encourage self-motivation, instead of using external motivators such as performance management.

To have a vision that does not mention time or anything measurable is against the convention of what a vision is. The textbooks use John F. Kennedy's "we will put a man on the moon and bring him back in this decade" as an example. Goal: To the moon and back alive. When: Within this decade. This was in '62, and it was unthinkable. They had just been able to fly airplanes. So it was visionary, no doubt about it. But we have decided that our vision isn't measurable, it is noticeable.

Director, Sales

Management has a conscious relationship to how employees should be motivated, and relies primarily on self-determination theory, which encompasses intrinsic motivators such as the feeling of achievement, the need to make one's own choices and the feeling of belonging.

Three factors must be in place in order for people to be motivated. The first has to do with autonomy. The second has to do with a need to succeed. And the last one has to do with building a company culture, feeling like you belong somewhere.

Director, People & Processes

Making Waves mission is: "Creating delightful experiences." According to the Director of sales:

It is quite uncommon to have a vision and a mission that do not have measurable goals and that do not involve the customer.

Director, Sales

But since the incident with the performance management system, it seems that the top management has decided to prioritize their own employees first, both in action and with a clear vision and mission statement.

> *We have a vision that doesn't involve the customer at all: A fantastic place to work. And a mission statement that is "creating delightful experiences". Not customer, but delightful experiences. And that may just as well be meeting a colleague, as it can be to make a web page that is delightful.*
>
> *Director, Sales*

6.1.2 Design thinking

Making Waves is permeated with the concept of design thinking, although it hasn't always been this way. Tim Brown of IDEO defines design thinking as "a discipline that uses the designer's sensibility and methods to match people's needs with what is technologically feasible and what a viable business strategy can convert into customer value and market opportunity" (Brown, 2008, p. 2).

> *Design thinking, innovation, is a relatively new approach in this company. You have probably heard about the incredible journey that this company has had. Since ten entrepreneurs started the company, there has been a development from technology and design-driven, to a more innovation and user-centred way of working.*
>
> *Manager, Service Design*

Making Waves uses this methodology in their projects, and often explains it with an illustration of three circles.

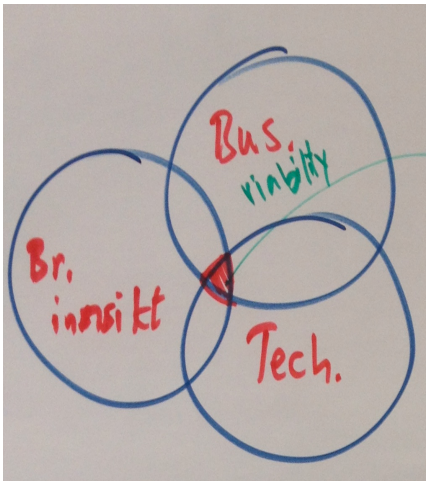


Figure 6.1 Design thinking, drawing made by informant.

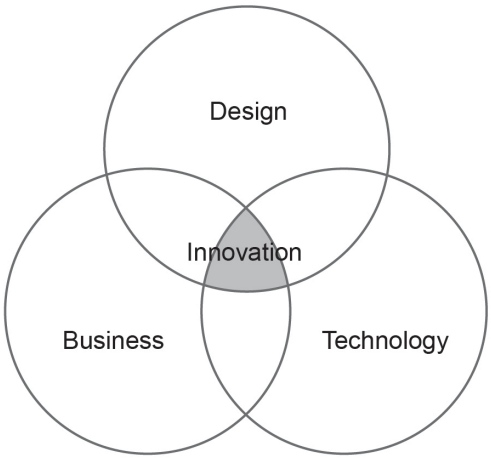


Figure 6.2 The figure redrawn for easier reading.

> *Have you heard about design thinking? Have you seen the drawing of the three circles of users, business and technology? And in the cross-section between the three is where innovation happens. In practice this means that we care a lot about having the right skilled professionals with us from the beginning of each project.*
>
> *Manager, .NET*

Design thinking often involves an iterative working process where ideas are tested out on potential users and then adjusted based on the feedback. This type of working process has many similarities to the agile software development process, which is based on iterative and incremental development. Agile working methods have become more common in Making Waves, replacing the old Waterfall method in which progress is seen as flowing steadily downwards through the phases of conception, initiation, analysis, design, construction, testing, production, and maintenance.

> *We have gone from using the Waterfall method to becoming more and more agile. But how do you use Agile without having too many people involved, and too many stakeholders? There is also a budget that you must mind at all times. And the customers are extremely different from each other.*
>
> *Senior System Developer*

Agile also seems to be the preferred working method among the employees, although they may not always have the possibility of using this working method.

> *How I wish I could work? I wish I could work more agile, but it has a lot to do with the contract, which means who pays for things and make the decisions.*
>
> *Interaction Designer*

The reason that Agile methodology cannot be used in all projects is either that customers aren't used to this way of thinking, or that they do projects for the public sector, where the waterfall methodology is specified in the tender.

The external conditions are not always in place in order for us to have an agile process. It doesn't matter if we are agile if the customer isn't. Everyone must participate, or else it's impossible. We have learned to become pragmatic and practical.

Manager, .NET

The design thinking methodology has its roots in the creative field, and many of the informants see themselves as creative. This is true for people working positions that are not normally associated with creativity as well. A project manager quoted her department manager:

Creativity is not a department.

Project Manager

Some informants believed that all employees are equally creative, and some believed that the design departments are creative and the technology departments are not very creative. One manager was quite specific in who he believed were the most creative:

I think the Strategy department is the most creative. It's full of people who come up with good ideas.

Director, Sales

6.1.3 Hierarchy

The organizational hierarchy in Making Waves is rather flat, something that is underlined by the fact that the CEO sits in a shared office with three other employees. When asked to describe the company culture, both management and non-management mentioned that Making Waves doesn't have a strict hierarchy.

Open, few competitive employees and a flat structure. Freedom to say what you mean. A culture open to change - listening and changing.

Director, Experience Design

All levels of management, including the CEO, eat lunch together in the cafeteria, and when asked if it was easy to talk to the CEO an informant replied:

I talk to him almost every day, it is very easy. In practice we have a completely flat structure. I can sit and joke around, and it is not difficult to ask the top management how their weekend was.

Project Manager

Making Waves used to have individual bonuses, but has gone to only giving collective bonuses.

Bonus systems that are based on your profitability. We don't believe in that. On the contrary, we believe that is very negative for the company culture. Once you have pecuniary incentive systems, people will automatically become more competitive. And we don't want that. Last year, the individual

bonuses were removed from the sales department. And that was the last individual incentive system that we had in this company.

Director, Experience design

As mentioned by the Director for Experience Design, the sales staff was the last ones to change from individual to collective bonuses. The Director of sales was very sceptical to eliminating the individual bonus at first, but he was willing to try it.

The Director of people and processes proposed that we remove the individual bonuses. He wanted us to have a collective bonus in the company, which is that 12 per cent of the profit we make is given back to the employees. And he wanted us to use this system for the sales department also. And I reluctantly agreed to try this for one year.

Director, Sales

After a year had passed the director of Sales was convinced.

I have monitored their performance this year, and I haven't observed any less enthusiasm, less spirit, less writing of bids on a Sunday, none of that. So far it seems that The Director of people and processes was right. Individual bonuses only work the day they are appointed, after that they don't motivate you anymore.

Director, Sales

Making Waves uses its HR department to create and nurture a good organizational culture.

There are four people in People and Processes in Making Waves. That is actually a pretty big group. There are many consultancy companies that only have one Human Resources person. That is because they are trying to keep the staff as slim as possible, which means less hours, right?

Director, Lifecycle

The Director of People and Processes, is the head of the HR department, and one of Making Waves' most ardent advocates of the self-determination theory that is used as a basis for their HR-strategies. According to one project manager, the work that the HR department does affects the way the organization works with innovation and creativity:

One thing Making Waves does that I think is really good is that they have such a large focus on culture. Culture, and an unusual Human Resources policy. Unusual in the way that there are few other companies that have it, and others should have the same focus that our Human Resources department has. They define a lot of the fundamental practices on how we work with innovation and creativity.

Project Manager

6.1.4 The Minister of Culture

The management of Making Waves has created a position called the Minister of Culture. The person that has this role was already a culture-bearer in the company long before she was given the title, but the title was given to her to formalize the job description. She now spends 50 per cent of her time as Minister of culture, and 50 per cent as designer.

> *It was established a couple of years ago, but she has always had that role. As a minister of Culture. There has never been any doubts about the fact that she has that role.*
>
> *Manager, Project Management*

The Minister of culture is among other things responsible for remembering people's birthdays, buying champagne on the International Women's Day, organizing parties, and generally contributing to making Making Waves live up to their vision as a great place to work. Her role also helps link the organization together. When asked about which people she works closely with, she replied:

> *I run around and get feedback, and talk to people. When you have been around from the start you know more people. So I think I take up some space, and take action if I see something that needs to be done. But I work closely with the Marketing department, and partly with Sales as well, because we can't have fun if we don't also make money. The more money we make, the more fun we can create for our employees. There is a correlation there.*
>
> *Minister of Culture*

When asked if she sees herself as a person that builds bridges between people in the organization she agreed:

> *You can probably see it that way. I'm kind of like that. Suddenly I'm just there, making things happen.*
>
> *Minister of Culture*

The title also serves as a symbol of the emphasis Making Waves puts on organizational culture.

> *It has been a conscious choice to maintain the good culture in Making Waves. She always participates in all different kinds of event planning groups and stuff like that. We have systematized it by creating a formalized role for her. And we use it deliberately.*
>
> *Manager, .NET*

6.1.5 Socialization

Making Waves has worked hard to maintain and strengthen the culture through socialization as the company has grown rapidly. Socialization is the means by which cultural and social continuity are attained. It has been important to assimilate acquired firms and integrate the Polish department into the company. Throughout the years, Making Waves has acquired several companies. Two examples are Tarantell

and Zoot, which were acquired in 2010 and 2012 respectively. A former employee from Tarantell claimed that they were well assimilated into Making Waves.

> *...first I started in Tarantell, a company that was similar to Making Waves. Then Making Waves bought Tarantell. So I am a part of a group that comes from Tarantell. But we aren't a sub-culture. We are pretty assimilated now.*
>
> *Senior Designer, previously employed in Tarantell*

A former employee from Zoot was asked if he felt integrated into Making Waves and answered:

> *Yes, I would say so. But it's not the easiest thing in the world. You can't just come, set up shop and get on with the job, absolutely not. Which brings us back to when we talked about culture. We have done it one way, now we are going to do everything differently.*
>
> *Manager, Service Design*

When it comes to integrating the Polish department of Making Waves, the importance of having a shared organizational culture, and the challenges that arise if this is not achieved, can be shed light on by this quote:

> *I feel that Making Waves in Poland, or maybe Poland as a whole, has a different respect for authority than we do. The work life is quite strict, while we have a tradition of having a flat structure, where you can be informal and talk to people. When the instructions we give on design and ideas that are developed in Norway are supposed to be implemented in Poland, they have a tendency to not let us know if they think the instructions are bad. They are afraid of letting us know, and are afraid of asking. We weren't aware of this until quite late.*
>
> *Senior Designer*

Lately, Making Waves has become better at creating a shared culture between the offices in Oslo and Poland. This is achieved by among other things arranging exchanges between the two offices, having a Norwegian manager at the Polish department and allowing project teams to spend time with each other prior to a project.

> *We are much better now at travelling back and forth to visit or work together. When we start on a new project, and there are people from Poland on the project group, we get together, either here in Norway or over there. The whole team gets to know each other better, and we work together in the first part of the project. After that, it becomes easier to work separately.*
>
> *Manager, .NET*

Team building is one of the methods Making Waves uses to socialize its employees. Management has recently established "friend groups" for the project managers, due to the fact that the project management group grew to more than 25 people. Such a large group makes it difficult for each member to get to know the whole group, and

the friend-groups are meant to help the group get to know each other as well as facilitating knowledge sharing.

> *Because of the increase of people in our department, there have been talks of splitting it up into two. I don't want that, so we established friend-groups, like they do in primary school.*
>
> *Manager, Project Management*

Also, Making Waves has several social events that the employees can attend if they wish. In addition to an annual Christmas and summer party, the employees can participate in different academically focused events. The company also hosts activities such as "Making Beer" and "Making Ski" where the focus is to bring people from different business units together.

> *We go to a pub twice a month, and we have a summer party where you can bring your partner. We have academic evenings with different themes that you can attend, and cultural happenings. It is up to each individual to choose if he or she wishes to participate, but I think the events we have help bring people together.*
>
> *Minister of Culture*

Other ways that Making Waves bring their employees together is through an internal social media platform called Yammer. The platform is mainly used for work purposes, and the social aspect of it makes it easy for employees from different business units to talk to each other.

> *We have a social platform called Yammer, you may know about it? We use it for spreading information about things that are going on, or ask questions like: "I have to do this and that, is there anyone that have worked with something similar that can give me some input?". Messages like that.*
>
> *Manager, .NET*

6.1.6 A culture of sharing

Making Waves has a focus on sharing knowledge between employees, business units and management. This can be challenging due to the fact that consultants within a business unit often work in separate projects, and not with each other.

> *Most often, unfortunately, you work on your project, and only with that. I have been working on my current project for two years, and it becomes an own little world. And we have a challenge with sharing knowledge. We're constantly working on it, but it's hard.*
>
> *Senior Project Manager*

Another challenge linked to knowledge sharing arises from the fact that Making Waves has grown from 14 people to 270 people over a period of twelve years.

> *Some of our project managers have little experience. So it is important that experiences from the rest of the organization are shared with them. So that*

they don't have to make the same mistakes that other people have been through. And that is a challenge, because when we were 20 people it was easier to spread the knowledge, as opposed to now when we're 270. We used to hold a meeting once a week where any employee could present a case or experiences, and it was passed on to the whole company. You can't do that now. You have to find other ways of doing it.

Manager, PMO

Several of the informants mentioned called attention to the "sharing-culture" in Making Waves.

I think the special culture, the sharing-culture, characterizes the environment at Making Waves. And there is a anticipation from the employees that the top management works towards creating a fantastic place to work.

Director, people & processes

Part of our culture these years has been that people drop what they are doing and help out if they see that someone is struggling. That is a very positive thing.

Director, Lifecycle

I think the most important thing is the sharing-culture. If someone has a problem, other people drop whatever they are working with and help their neighbour. I think that is probably one of the most positive things.

Manager, Project Management

I think that academic workers take pride in doing things themselves. But I don't feel like they don't want to share with others. On the contrary. People think it is cool to share, they want to share.

Manager, .NET

One of the things I think is positive about Making Waves, is that people are very supportive. People back each other. Everybody is focused on each others positive qualities, and on helping each other as much as possible.

Interaction Designer 1

6.1.7 Leadership style

Through our interviews we spoke with different levels of management, from the CEO and members of top management to business unit, profession and project managers. A common theme that surfaced when we asked questions about how the managers wished to be led, and how they wish to lead others, was autonomy. Several informants appointed autonomy as the most important aspect of how they wanted to be led and how they wanted to lead others. This was evident in all levels of management. When answering a question about how he wished to lead others, the CEO shared:

Freedom to make your own choices. Some people expect more clear boundaries than others, but I think such boundaries conserve and restrict in most cases. So I would like us to keep that level of autonomy, as much as possible. My employees are so competent and my managers are so wise that they do not need the boundaries.

CEO

The CEO elaborated on how he manages, and that he might not give his employees as much freedom as they say:

I see myself as a facilitator. I practice, or at least I'm trying to practice, a sort of serving leadership. But actually, it's so far from my nature, that it feels like hogwash. I am a strong person with strong opinions, and I always express myself with strong terms.

CEO

Despite granting employees a large degree of autonomy, the CEO sometimes needs to give clear instructions on how he wants the company to be run. He elaborated, with a grin, on how he makes employees understand the need for being cost effective at times:

I guess I do the normal stuff. I use many methods. Sometimes I cry, sometimes I yell loudly and tell people off. Other times, I treat people like kittens, being kind and sensitive, smile at them and pat them on their backs while saying that they have to perform better.

CEO

The CEO is not afraid to make drastic decisions about employees, such as when he discharged all the designers in Making Waves Poland after he decided that they only needed programmers there.

I did that almost immediately [after becoming CEO], I spent about two weeks discharging them all. It sounds brutal, but it was necessary. We did it in a fair way.

CEO

The CEO explains how he would characterize himself as a leader of Making Waves:

In reality, I'm afraid that I'm seen as a dominating and sometimes manipulating leader, unfortunately. Well, well. But my ideal of being a facilitator, which I strive towards, and which I try, and which fits my nature, because I'm a classical provider. I have a lot of femininity in me, and I think I have caring in me. So I'm genuinely interested in my co-workers and try to do everything to enable them to do their jobs. And I'm not talking about just my team of leaders or heads of departments in an extended leadership perspective, but every employee. And I try to create as flat a hierarchy as possible, and such a system makes it possible for me to talk to anyone in the company, and for anyone in the company to talk to me. So a serving leadership, involving leadership, and a significant degree of modern thinking

through contribution and listening to others, and then give a lot of freedom to the individuals.

CEO

When asked how he wanted to be led, an interaction designer emphasized that it was important that his manager was in control of the administrative aspects so that he could focus on his job. He also praised the autonomy he was given in the projects he has worked on.

A person is autonomous to a very large degree, unless he asks his manager to get involved. You are seldom administered within the projects you work with, and you are responsible for your own delivery. I think that is a good thing. It creates a lot of responsibility and trust.

Interaction Designer 1

Management does not only try to see what employees need and adapt to those needs, but also tries to educate employees on what is important to be happy in general:

Every employee in Making Waves learns about the Maslow and his hierarchy of needs, and then we proceed to Herzberg. I think it's only fair that they all know how important hygiene factors are, and how they relate to motivation.

Manager, HRD

One manager explains that working directly with motivation is not too common in consultancy firms, or at least perceived by outsiders as a less prioritized field. But he believes that personal motivation is essential for doing a good job. When working on a project for a large Scandinavian hotel chain that became very complicated and exhaustive, he had to argue with the representatives from this customer that the project couldn't continue like that.

Some of our customers see consultants as machines. It's unheard of that consultancy companies start talking about motivation and calling their resources humans and such. And that those humans can get tired and unmotivated. (...) So we told them [the customer] that if we were to succeed, our people have to be totally motivated, or we won't be able to make an exciting system. And they understood that very quickly, they had just never heard consultants say that.

Manager, Experience design

6.2 Knowledge management

In this subchapter, we will present data about how Making Waves shares and creates knowledge, and how the interplay between tacit and explicit knowledge works. We will present the ways in which Making Waves transfers knowledge through computer systems, people, projects and organizational structures, as well as different ways Making Waves acquires new knowledge.

6.2.1 Computer systems

Making Waves utilizes several computer systems in their effort to contain and disseminate knowledge within the organization. Internally they use the team collaboration software Confluence, which they have integrated with the project management software Jira. The combination of the two programs facilitates both knowledge and project management.

> *We have a wiki we use, called Confluence. (...) A challenge we face is that it feels very dead, although it is updated. It has become a filing system, which may not be the best format to disseminate learning and knowledge.*
>
> *Project manager*

> *I use it [Confluence] to keep track of working hours on projects, and to keep an overview of the project portfolio. I use Confluence quite a lot - it's a good system for maintaining a dialogue with customers, collect and archive files, et cetera. I use it as a tool on a regular basis.*
>
> *Senior strategy developer*

Making Waves also has an intranet called The Wave and it has been developed in-house. All the other systems are partly built into The Wave, meaning that they can see information from all those systems within The Wave. In addition to formalizing and storing knowledge, a part of knowledge management has to do with sharing knowledge. One way Making Waves tries to spread knowledge is through computer systems that make communication possible. They have implemented a communication system called Yammer, which is described as a social software for enterprises. In the words of the Director of Experience Design: "*It is a kind of Facebook for companies."* This system opens up a digital space for informal communication with varying degree of work relevance. Not everyone uses it a lot, but none of our informants spoke negatively of it. Several informants also noted that using Yammer could be just as an efficient way of seeking knowledge as searching the wiki (Confluence).

> *[Yammer] is a platform where you post funny stuff on Fridays and sometimes a little bit more serious things, like when you've found something interesting. And sometimes, looking there can be just as enlightening and take much less time than trying to read through some documentation that was put up in Confluence, which is a lot more like a heavy document management system.*
>
> *Senior systems developer*

Efficient knowledge and communication systems are emphasized as a prerequisite for a well-managed knowledge organization by most of the informants. Still these systems are of low value if the human side to knowledge management is not treated with at least the same amount of attention.

> *It depends a little bit on which phase you are in and how long you have been employed. It is obvious that all newcomers will benefit a lot from [Confluence]. Anyone who does something new once in awhile will benefit from it, because it's a place where you can find something by yourself, but most importantly*

ask people. Because it's mostly about human relations. But then the expert, the one who's helping out, can point and say: 'Then you click here and there you will find such and such method'. Contextual information between people is important.

Director, Experience design

6.2.2 Updating the computer systems

Confluence includes complete overview of the methodologies that are used in Making Waves. The overview has been given the name The Wavemaker, and it contains a lot of information on how to execute projects. The management recently decided to update Wavemaker.

Wavemaker is... All companies have a process or methodology, and it is important that you use the same words on phases and stages of the project, and the name of roles and all that. And that means that you can work more effectively on projects. So that's the main reason we have a methodology. The framework we had until, let's say a year ago, it had evolved since 2001, somewhat haphazardly. Those who had a little extra energy worked on it. So in the end there was almost no one using anymore. Plus, there were some weaknesses with what we had. So then we decided to lift it over in Wavemaker 2.0, which is the new version of Wavemaker.

Director, Experience design

The decision to update Wavemaker was due to several reasons, one of them being company growth, and the challenges that have risen due to this.

We are growing as an organization, we are approaching 300 employees. We grew quite fast in the last year. So most of what we had made before was made during the time we were around 100-150, now we are twice as many. And it requires new things that we haven't needed in the past.

Manager, .NET

No-one has been given the overall responsibility for Wavemaker, which adds to the difficulty of keeping it updated.

It is a big challenge, there has been no ownership of it [Wavemaker], so there have been several all-out efforts with updates, (...) we are now keen to establish a management organization. It does not necessarily mean that the internal project owner should manage the framework alone. It is important to have some professional groups who take care of their areas, such as technical infrastructure, design and so on, but there should be someone responsible for coherence and implementing lessons learned from projects into our methodology. Otherwise, these kinds of best practice collections or frameworks dies, because in our industry great things happen all the time. (...) There is a big difference from how we designed things three or four years ago, where there was only a PC monitor to relate to. So today I need some other tools and some other ways to handle my work challenges.

Manager, PMO

This renewed focus on formalizing one's methods and work-culture is welcomed by most of the informants. During our observation of the strategy consultants' weekly meeting, one of the staff members remarked, in conjunction with a discussion on the internal Wavemaker 2.0 project, that:

> *We must use our own methods [design thinking] internally as well - it's extremely important.*
>
> *Senior strategy consultant*

Others had a different viewpoint as to what the update of the Wavemaker system means to Making Waves, claiming that the system provides more value for the customers than to Making Waves.

> *These frameworks sometimes appear to be mostly window dressing, so that we can give the appearance of being a company that works systematically with the customer.*
>
> *Senior systems developer*

Table 6.1 An overview of computer systems mentioned by the informants.

System	Application
The Wave	An in-house developed intranet that sources information from other systems. Examples are financial information, project progress and HR information such as birthdays and visiting employees from the Krakow office.
Confluence	A enterprise knowledge management system which utilized the simplicity of a wiki. It is integrated with Jira, and is used as a team collaboration software.
Jira	A issue-tracking and project management software. Implemented by Making Waves in 2011 with the aim to replace several other systems and homemade excel spreadsheets. The system allows customers insight in project progression in real time.
Yammer	An enterprise social network service. Used as an informal knowledge sharing platform among employees.
Wavemaker	Wavemaker is Making Waves' own methodology system that contains information of work processes and company specific terms in the form of text and illustrations. It is stored within the Confluence system.

6.2.3 Knowledge sharing through people

As explained in subchapter 6.1.6, the employees at Making Waves experience their work environment as friendly and helpful. But when helping other people solve their problems, time that could potentially have been used on their own projects is lost. Most employees are aware of the fact that Making Waves makes money by billing hours.

> *There is a kind of balance between being able to ask someone for help and having respect for the fact that they must work on their own projects. f it were up to those who count your billable hours, we should all work with blinders.*

But for us in communities, it's very important that we can utilize each others' knowledge across projects. So it becomes a bit like "ok, if I help you out half an hour on your project, you help me half an hour on my project," it's like if you scratch my back I scratch yours, right? But we have been very conscious that we want a culture where it is possible to stop for a moment and have a professional exchange of ideas and input with each other, without having to specifically return the favour. If not, there is no point of sitting together. There is something important about utilizing the specialist environment you are a part of.

Senior designer / front-end developer

But some employees need to be reminded that they do not have an indefinite amount of time to make the perfect concept.

Some are very practical, others would like to make the very best solutions for the customers from their academic perspective. They must often be reminded that we are working within certain time limits.

Director, People and Processes

The project managers are responsible for making sure that other group members stay within the time limit for the project.

Making Waves has a positive view on what they can achieve in projects. Project managers are the ones that have to be realistic about what we actually have time to carry though. Sometimes we are viewed as kind of negative, and as holding people back.

Project Manager

This culture of sharing knowledge is not only confined to the different departments or disciplines, but extends all the way through the company. Employees seemed comfortable asking people they knew from different departments, and even the CEO, for help.

I feel that in spite of that we obviously have gotten several new levels of management over the years, I can at least say for my part that I have no problem with asking the CEO, for help. You tend to use the ones you have worked with all along, the ones you know well, such as The Director of people and processes, or the head of the project management department, and so on.

Manager, PMO

Another way Making Waves transfers knowledge is by nurturing the development of hybrid profiles. The philosophy is that knowledge flows better through their organization if employees have some degree of overlapping knowledge and skills. It is easier to staff projects if everyone has some knowledge about the other disciplines, which also results in project teams performing better.

It is about developing more people who can do both. Hybrids. (...) For when they operate like today, it is very much like "this is my domain, and that is your domain". And although we work on transferring competencies and knowledge sharing in meetings and project teams, something indefinable happens within the different departments. From the management point of view, we have higher profitability and create better solutions if we have more hybrid profiles.

Director, Experience design

The creation of internal groups within the organization can also make transferring of knowledge between people easier. As mentioned in subchapter 6.1.5, the manager of Project Management has created friend groups to relieve the biweekly department meeting of some functions. The department meeting is a two hour long meeting where issues and specific cases are discussed. A project manager comments:

[The project management department] is very large and it becomes difficult to share with everyone. So these friend groups consist of five people where you arrange activities yourself. It might be breakfast in the cafeteria, lunch, a coffee at Kaffebrenneriet, a dinner at someone's house. (...) The idea is to get to know one and another, to build trust between each other. So you know how to use each other, and so that we can talk about stuff. By the way, I just discovered this yesterday, it may seem like nothing, but I discovered how I could visualize that I had found an error in a web solution in a much more effective manner, how I could visualize it for the developers. Even though it's a minor thing, it could be of value to the other project managers. But I would never raise my hand in a department meeting with 26 persons to share this bit of learning. So in that way the friend groups work well.

Project manager

The previous quote exemplifies how Making Waves uses social relations to promote knowledge transfer between employees. This is further emphasized by how the Minister of Culture views the effects of her efforts in building company culture. Social initiatives and events are in her mind not only organized to establish a friendly work environment, but also used to foster knowledge sharing.

Then you get to know people you might not have worked with before through social events. And then: "Oh, you are working on that project, I would like to hear a little more about that", or: "Oh, you are on that project, I worked with the type of project last year". It's easier to ask someone about anything after you have been acquainted. Because in our projects we put together different disciplines and different people, and in some settings you might have worked with the same team for three projects. And then you might not know whether there are others in Making Waves that could contribute, or possess helpful skills or knowledge. We have grown so big that everyone doesn't know everyone anymore. But it is easier to approach someone with a work related question if you had a pint together last Friday, or met at lunch.

Minister of culture

6.2.4 Knowledge sharing through projects

In Making Waves a large majority of the value-generating work is conducted through projects. The projects vary both in size and length, and staff-members are exchanged between projects depending on the stage of the project and their own wishes and goals. Several managers claimed that Making Waves would save money if components created in one project were reused in other projects, but that doing so is difficult. In a project context, a component can be any part that constitutes a digital solution, such as a interface, a string of code or a colour scheme. One informant raised the issue of what will happen if Making Waves focuses too much on reusing existing components - that the company will not be able to create as many new components and solutions.

> *I believe that if we are to be efficient in our deliveries, we must focus on the right things, and inventing the wheel over and over again is not the right thing. It does not provide value to the customer at all. On the other hand, we are dependent of professionals who have a desire to learn new things, to innovate. If they always just reuse what others have done, there will no innovation. So you need a good balance. We must think of the ability to be innovative, but also the ability to deliver effectively and provide value to the customer.*
>
> *Manager, .NET*

Another informant shares his thoughts on reusing components, and claims that it is the knowledge about how to create the components that is important:

> *It is the knowledge of how to do things. That's what we reuse.*
>
> *Senior systems developer*

There is a substantial amount of knowledge transferred across the whole organization through the continuous flow of new projects. One project manager reflects on what she has learned in a project:

> *We made an assessment and evaluation where we discovered how we could have saved a lot of time by using existing templates. Both me and other project participants learned something from this, and I'm sure we're going to take it with us to our coming projects. It is unlikely that all of us are going to work together again, but we can spread the experience this way.*
>
> *Project manager*

The knowledge created in projects is often tacit, and the management team is eager to retain and make the most of it. The question is how tacit knowledge can be spread by other means than staffing employees with tacit knowledge to new projects. A manager comments:

> *We are actually not good enough at re-allocating the experience gained in projects into the organization, so there are many who have to make the same mistakes and thereby learn from them. In a knowledge organization, we*

should actually have better mechanisms for sharing the knowledge we acquire.

Manager, PMO

The director of sales, who also is one of the founders of Making Waves, shared the frustration that the PMO manager expressed:

So, just give me the name of someone who has done it [knowledge transfer from project to project] before. If you manage to figure it out - fantastic! Just think about how much stuff we do over again. It is completely crazy to think about how much work we do over again every day.

Director, sales

Other informants had a different perspective. An interaction designer answered the question of whether Making Waves reuses knowledge in projects in this manner:

We do that quite a lot of. At least that's my impression. It's maybe not copy-paste...but it's like that when solving...or, most of the projects participants have been on other projects. So then it's like: 'Yeah, that's how we solved it for the Post and Telecommunications Authority', or 'this is how we solved it for the Mapping Authority, and then you find some sources of inspiration from those projects.

Interaction designer 2

A manager claimed that in order for knowledge to be reused in projects, the people in the organization need to be sensible enough to ask others about their experiences.

Yes, we do. If you are facing a problem, let's say an integration with a payment solution that is relevant to all e-commerce projects, it should be very obvious to check out who has done this before. And then look at the code to see how they have done it, and hear about experiences and so on. That we do, but we can get even better at it. For there isn't really a system for such things, it depends on the individual being sensible enough to ask, to stretch out a hand.

Manager, .NET

6.2.5 Knowledge sharing through organizational structures

One of the most recent structural changes that have been implemented in Making Waves, is the establishment of a Project Management Office (PMO). This is a small department of two people. It is placed together with the Project Management business unit, a unit that is headed by the director of HR, or People and Process as Making Waves calls it. The basis for the decision of the implementation of PMO is explained by the manager of the PMO department:

[PMO] is supposed to be a support function for the project managers, and I'm defining myself to be a kind of facilitator, but also the manager that follows a set of requirements to help the process from Sales to completion of the

project, and through some sort of experience loop, to make projects flow in a better way.

Manager, PMO

The thought is that investing a bit more time and effort early on in projects will help controlling the scope and possible risks of going over budget.

I believe we could have saved time if we had spent a little more time on the handover from design to technical development. Implemented a really thorough discussion together of what should be developed and why (...).

Interaction designer 2

Better communication and knowledge sharing between the project team and sales groups is another benefit that is mentioned:

The other aspect of this is that we must try to convey the experiences we have in the projects back to the sales office, of course. In that way they can sell more correctly the next time they will be selling a similar project. But also how we can share experiences more sensibly within the organization. Now that we are starting to get quite large, there is a risk that important lessons are carried by project participants, but not spread to the rest of the organization. Then we make the same mistakes in new projects. So that is what we will focus on in the beginning, but we will also be improving the transition between sales and project start-up.

Manager, PMO

Sharing knowledge can also be facilitated by making alterations to the way the company organizes its business units. This has been a recurrent discussion within the management team.

We must always consider whether it makes sense to merger certain departments. Has it gotten so far that it makes sense to merger, for instance, front-end and graphics (...) or strategy and project management? A somewhat more exaggerated example is whether the strategy consultants are so involved in project management that they might as well have been part of a larger unit?

CEO

In contrast to most consultancy firms, Making Waves has a strong tradition of keeping consultants in-house instead of having them work at the customers offices. Some members of the project groups sit and work together, and others sit in the business unit they belong to.

We try to sit together (...) at least us technologists. The others are a little more... such as designers and interaction designers... they like to have their own dens. So they are sort of up in the fourth floor, more like a tribe there. (...) while project managers tend to settle among us, but not always. So at least technologists tend to seek together when we work together.

Senior systems developer

Some informants were concerned that having project members sit with their business units instead of with their project group may hamper knowledge sharing. Making Waves growth may result in business units becoming so large that they no longer communicate with each other.

> *And there is a danger that there will be too many 'knowledge-silos', so that we become disciplines that stop talking to each other because we will grow to become too large and get divided.*
>
> *Interaction designer 2*

This is a possible problem that is taken seriously by the management, and has been frequently discussed.

> *We have discussed whether we should change from this discipline based organizational structure to a more market divisionalized structure many times. And every time, the discussion concludes with that if it works today, we earn money today and people are happy working with people from the same backgrounds. Why change a winning team?*
>
> *Director, people and processes*

A way of ensuring that domain knowledge is spread across the organization, is by creating a managerial position that is responsible for making this happen. Just recently, several engagement directors have been hired in Making Waves, and the people that occupy these positions are responsible for different market segments. The CEO explains how the engagement model creates a new level of structure, and allows Making Waves to make the most out of possible synergies:

> *So what we are doing right now is to extend, what shall I say, the project element to also account for market segments. So we are now introducing what we call an engagement model, where we define a market segment: public sector, banking-finance, it could be tourism or leisure, travel. It can be retail, and so on and so forth. (...) So we'll keep the verticals, we retain the business units as they are, at least for now, and we add this dimension to create more synergy. To build even more domain knowledge if you will, into a larger team then.*
>
> *CEO*

The engagement directors are responsible for creating synergies between employees working with projects within their particular segment. They are also responsible for the customers that the segment is made up of. A senior strategy developer reflects on the new position:

> *This issue is something I'm very interested in. I have been quite interested in this new role, the Experience Director role. I have helped in defining it for Making Waves. When growing to the size we are today, I've seen that one of the things that this kind of role should do is to find synergies across the whole*

organization. I think we are doing far too little of this today, too little of: 'this is very similar to a project we did three months ago. We can save the customer and ourselves a lot of time by retrieving the research and expertise from that previous project'. It may be an entirely different domain, not directly comparable, but the experience can still be transferred. This is because our projects are not so much about the domain and the business the customer operates in, and more about the time we are all in. The awareness of social media and how to engage users is quite similar, even if it is either the Health Directorate or Kiwi we are providing services for. There will always be some common denominators. So the answer is that we should do it, and we do practice it to a certain extent, but still too little.

Senior strategy developer

Several informants welcome the engagement model that makes market-specific knowledge more accessible. Still, informants stress that a structural change is not the entire solution, as human factors are also important.

One thing is that we can have systems where you browse and search for things. But the main thing is that we obtain a human factor. Say this model with experience lead, people who know the projects well and who meets across departments. To break down silos and departments with someone who works well across the organization.

Senior strategy developer

6.2.6 Acquiring new knowledge

Some approaches Making Waves use to acquire new knowledge are to allow employees to spend time developing their skills, integrate companies that they have bought with the existing organizational structure, and seek out projects that they don't have experience with. It can be difficult to win a bid on a project if the company does not have references to similar projects. In order to win projects that Making Waves are inexperienced with, they sometimes pay for the project hours used to learn the new skill themselves.

We have clients and projects where we effectively sponsor a part of the project. It can be a kind of e-commerce project where we need more references. Where we need to get more people up and running on certain technologies. So that is absolutely something we do, and sometimes we do a project just to prove that this is something we are capable of doing. But that is something that have to be rooted in the organization, that this specific project is an investment. That is something we do, and also we have a lot of newly hired employees which are staffed to projects but not payed for by customers. So it's an investment to ensure that people are trained, and we use the projects as an arena for that.

Manager, Project management

A specific example is given by the Director of Experience Design. One of Making Waves' core capabilities is knowledge of the Microsoft SharePoint platform, which they acquired through customer projects.

If there is a new technology we would like incorporate into our technology portfolio, we actively pursue such opportunities. We wanted to increase our SharePoint skills a while back, then we actively searched out SharePoint projects in the marketplace.

Director, Experience design

Even though Making Waves has many projects, employees that are not fully booked at all times. The company have an individual billing-percentage of between 70% and 80%. This allows employees to use the downtime to refine existing knowledge and learn new things. Internal workshops can be used to refine existing knowledge and document it, so that it can be shared with other employees.

We have had a period now where we have had more to do, some times there is less. Then one thinks of sales and marketing, but I also think of efficiency, to understand how we can work smarter. Think methodology, tools and process. We had a small one-day workshop about it. So we categorized everything we've done over a full service design process, and mapped all of the methods and tools that we had used. It's a job where, if you do not have so much else to do, you can go back to the things you've worked on earlier and pick out things like presentations, interview guides or a specific way to introduce a concept. You gather it and place it in a folder structure. So it becomes a tool for others to use, not just in our department, but we can share knowledge with the rest of the house.

Manager, Service Design

In Making Waves, new knowledge is acquired by having employees read books related to their field of specialty, attend conventions or participate in seminars. New employees are taught the ropes by being placed on projects as an extra resource without billing the customer. Also the company books speakers that hold lectures about different themes such as effective meeting methods or presentation techniques. Several informants mentioned that it is important to be in tune with the current trends within their knowledge field and to get certified in new technologies.

In between projects we read to keep ourselves updated. About a half year ago I was part of a program where several of us were certified. In order to get certified we were sent on training courses.

Senior systems developer

When Making Waves acquired the service design company Zoot, Making Waves created a new business unit called Service Design, which was basically the old Zoot. The former boss became the head of the new unit, and two of the three employees in Zoot continued in the new business unit. When asked if he thought if Making Waves was able to renew itself he responded:

I'm evidence of that. I'm right here. Making Waves has transformed from being technology-centric business, to start thinking about user-centred

processes and methods. Not everyone can transform like that. I think that says it all.

Manager, Service Design

6.3 Strategic orientation

In this subchapter, we will present the empirical data within the category of strategic orientation. This relates to how they align their operations *because* of affects from their business environment, or how the arrange their operation *to* affect their environment. We will present the principle of customer selection by the criteria fun, fame, and fortune, how different staff members reacts to overselling, what kind of competitor focus they have, and which strategies they have for the future.

6.3.1 Fun, fame, and fortune

The top management in Making Waves have decided on three criteria for selecting which projects to pursue in the marketplace, called Fun, Fame, and Fortune. Fun is what personally motivates the people working on the project. Fame is how prestigious the project is, and how it strengthens the Making Waves brand. Fortune is how much Making Waves hopes to make from the project. Fun, Fame, and Fortune are not followed explicitly, but serve as guidelines. Some managers claim that they don't use them very often:

There are several criteria we use for evaluating our customers. Size is one. Fame factor, namely how visible this customer and the customer's brand is, is another. We often talk of Fun, Fame, and Fortune. We don't use them that often, but we sometimes use them as criteria. A typical fun project doesn't have to be very profitable, but if it's exciting for the people working on it, it can still be a very desirable project.

Director, Experience design

Other managers claim they do use Fun, Fame, and Fortune a lot:

Fun, fame or fortune. All three should ideally be present. But we do some fame projects and some fun projects. We have, for instance, rebranded the theatre across the street. That's fun and a little fame, but definitely not fortune. We do these things from time to time. But it has to be decided high up in the organization, because you often lose money on such projects.

Director, sales

An example of a project that scored highly on the fun scale is the work Making Waves did for the fashion house Moods of Norway:

A typical fun project doesn't have to be very profitable. It's sufficient if employees find working on the project extremely interesting. (...) We worked with Moods of Norway for a long time. We didn't make any money on it, but we got some free garments and things like that. And people thought it was a fun project.

Director, Experience design

Deciding what would be fun for the employees is based on that management know the employees well enough to know what they like. For example, management had no problem deciding that rebranding Det norske teatret would be, despite being a financial loss, fun to do for the employees:

> *Well, we've got some experience after so many years. We knew that... the theatre was my responsibility.. that our designers would love rebranding one of Norway's biggest theatres. There was no question about it.*
>
> *Director, sales*

Despite losing money on the theatre rebranding, Making Waves negotiated a deal where they can use the theatre meeting rooms when they are not in use by the theatre, since Making Waves hasn't got any large meeting rooms itself. Thus, they were able to get something back that would possibly cost a lot of money to rent elsewhere.

Another example of the Fun, Fame, and Fortune idea is seen in the management's plan to establish an office in New York. They were arguing where to place the first proper international office, and decided that New York was the most fun and fancy:

> *I would like to tell you that establishing an office in New York was a rational choice, but it wasn't. We simply have much stronger feelings for New York than Houston. And it's easier to make employees go there. A lot of our people would probably like to spend half a year or a year in New York.*
>
> *Director, people & processes*

The director's view was supported by the CEO:

> *We will be in London, we will be in New York. We'll establish an office there, and it's going to be a little happy-go-lucky. It's one way to do it, and it might be the most risky way.*
>
> *CEO*

Making Waves sometimes does projects that are not fun, but strictly fortune:

> *We've had at least one project, where we made an intranet for a ministry, and where another ministry later requested basically the same system. Then, and other times, we delivered the same intranet with a different skin, which can be quite profitable. But no-one is motivated by such a project. We choose to do it sometimes when we see low-hanging fruits, but we don't really want to.*
>
> *Director, Experience design*

The Director of Sales answers the question of strictly fortune in this manner:

> *It is not uninteresting. However, it should be a component of those [Fun and Fame], too. The easiest way to make money in the consulting world is to rent out consultants. And when you become so famous in the consulting world as we are, it is very easy. (...) Everyone needs consultants, designers, project*

managers. So renting out single heads to customers is the easiest thing you can do. (...) We do whole projects, and that is much more risky, but much more fun. (...) Many of our competitors are much larger than us on renting out consultants, and do it very well. But it's a boring business. (...) Here at Making Waves almost everyone works in-house. There are a few out of 300 that work out with the customer, everyone else sits here. It attracts employees, and we want the best people, then we also get the best projects, we think. So it is best if there is a nice balance between the three elements [Fun, Fame, and Fortune]. A profitable project that is educational, which also is a bit funny. If there is a customer who is willing to invest a little bit in innovation and try new things, it's great fun.

Director, sales

6.3.2 Customer selection

Making Waves has gone from having to accept all customers to having an excess of customer requests and thus being able to select whom they want to work with. The criteria they use for selection are partly the somewhat intangible Fun, Fame, and Fortune (subchapter 6.3.1), and partly more measurable criteria. One criteria is the size of the company:

We have a strategy regarding the size of the customers, and that the project we do shall be vital for the customers. The customer has to have a turnover of more than 250 million kroners.

Director, people & processes

The Director of Sales elaborates on what "vital to the customer" means:

How important is it for them to have a very good digital communication? If I think it's not very important, that they're just looking for a homepage. I try to get a sense of what kind of investment they're willing to make. And if it isn't big enough, we'll decline. We have also decided that an interesting company should need consultancy services for about 3-5 million kroners per year. If they're smaller than that, we're quite lukewarm.

Director, sales

In practice this preliminary sorting is based on quite rough standards.

This means that when we get requests, I go straight to proff.no and check the size [of the company].

Director, sales

Another criteria is what kind of business they do:

We have selected some areas that we want to work with, but we are not very strict. We just want to work within some familiar areas, because we've been successful there before. We've had many projects with travel companies, we have Choice Hotels, Visit Norway, and several others. We are also quite good

at doing projects within the public sector, and we've done a lot of intranets. It's easier to sell our projects when we've got those references.

Director, people & processes

Even though they are not very strict they have a strategic orientation in choosing which projects to pursue.

It's essential that it is based on our strategy of what kind of company we want to be, and within the service areas we want to work with, and that the projects are buying across the different departments. We are most keen on projects where we can supply the entire range, where we take responsibility for an entire project, and preferably not only supply single heads.

Director, people & processes

Still the line of customers wanting to work with Making waves is growing.

We get a lot of inquiries, weekly we may receive 10-20-30 inquiries to respond to, and compete for. Many of those are new customers. We have gone from having quite a few customers. We have 200-300 active clients right now.

Director, people & processes

The market Making Waves operates in can mainly be divided in two, the public or private sector, which has two separate modus operandi for acquiring customers.

There are two varieties, one of which is public, then there is a defined process for it. Where it [the tender] is announced on Doffin, the governmental portal for tenders. Or it's a private sector inquiry with its own processes. Then it goes into the sales department, which makes a perusal and brings it up on a prioritization meeting. After they have read more thoroughly they put it forth and have a recommendation if this is something we should take time to answer. Then it is made a decision in the sales meeting, yes or no. If there is doubt, the question should in theory be raised to a management meeting. If the [sales meeting] said yes and there is no doubt, then we allocates the resources, and ask department heads for resources to respond to the offer. Then it can be from a few hours to several hundred hours to answer such a request. We establish a deals team and there is a negotiation which is led by sales. If we win the contract, it goes to a 'traffic meeting', where the project eventually will be staffed.

Director, people & processes

And sometimes, the reason for choosing a project is just that they know the people involved:

We chose the project because the engagement director, who is responsible for the bank and finance sector, knew them beforehand. This happens quite a lot in business - it makes it easier to take advantage of the situation.

Manager, Service design

Working with customers that have purchased services from Making Waves before is often easier than working with new ones, because Making Waves often have to teach their customers how to work with them

> *If we have immature customers, we have to teach them, which takes time. Therefore the first project with customers is often a waterfall project. And then, the second project might be more agile. Teaching them how we work is part of the projects we do. We have to talk to them, show them things as we progress. We need basic trust first. If we are working with a first-time customer, we can talk all day about how good we are, but they can't know for sure. Unless they know previous customers of us.*
>
> *Manager, .NET*

> *The first project with a customer is almost always problematic. We always spend too many hours. It takes too long time to raise the ladder and initiate proper collaboration. But we have a 5-10 year perspective on customers. So we know that we have to accept some losses at first, and that we will make that money back during the following years, because we will have safer, better projects with them then.*
>
> *Director, Sales*

Making Waves has just started hiring engagement directors, who will lead groups within Making Waves that will work with specific segments.

> *It was going to be a trial, but now it's an extended trial with three or four engagement directors. It provides us with the necessary experience to reduce the need of people having to ask people at Sales about, for instance, the public sector. They won't have to ask, because they have been part of the process since the start, and are working close to others who are working on similar projects. And I think that's a good thing. The basic idea is that we shall have some seniors that have a lot of knowledge about specific segments, more than we have at Sales.*
>
> *Director, Sales*

6.3.3 Overselling

Many of the informants noted that the sales department had a tendency to oversell projects to customers, thus raising expectations too high, and the project manager having to lower expectations when the project begins:

> *I believe we sometimes have too big ambitions regarding sales. We pitch projects to them that their budgets don't allow.*
>
> *Senior project manager*

The director of Experience design explained why the project with the Norwegian parliament (Stortinget) is way over budget:

> *There were several challenges with that project. One thing was that it had been won by offering a lot for a price that was too low, we didn't control the expectations that were given to the customer after selling the system. We promised way too much. And we gave the project a too wide scope from the start, and haven't been able to reduce it later on. Instead, we let the customers ambitions continued to grow, instead of being reduced to a level on which we can deliver.*
>
> *Director, Experience design*

An interaction designer recalled her experiences with the Norwegian parliament (Stortinget) project and why it went over budget:

> *It was because the project was oversold, and we found out that the instant the team had been assembled. We evaluated the requirement specifications, and all the specialists on my team informed management that there were not enough resources for my task. So everybody knew about it from day one, and we informed the management. I don't know if Sales know how much the project was oversold, I haven't spoken to them about it. But I suspect it was a strategic choice, because we wanted a customer relationship to Stortinget, and we're hoping to sell them more services in the future, thus eventually making our work profitable. And of course, it was a public tender, and that means there are many rules about which vendor to choose, and to get to do the project at all, we had to oversell. Perhaps someone from sales said that it would have been interesting to see how the other companies that made offers that were actually cheaper than our offer, had planned to deliver on the demands that Stortinget had.*
>
> *Interaction designer 2*

The project managers feel that they have to provide realism in projects:

> *Say that they make this system to save two million. Then they want to make a profit of it. And it's important that we don't take responsibility for that, saying that they will make that profit. Things like that are often mentioned in the contract, so when I work with customers, I make sure that they know that they are the ones responsible for claiming that profit. We shall not do that. So that separation is something we work quite a lot with, because the customers sometimes get the impression that we provide much more than we actually do. There are some customers that just lean back and wait for the project to be finished. But the job is theirs.*
>
> *Manager, project manager*

According to sales, overselling projects is a conscious strategy for getting a foot within new business areas and landing deals with customers. When confronted with the allegations of overselling the Director of Sales responded humorously: *Of course, that's what we do: Trust me, I'm in sales*, before he elaborated:

> *I get complaints from the project managers' manager and the project managers all the time, and I try to explain to them why it has to be like this.*

(...) When watching a movie trailer, do you really think it's the most boring parts you are watching? Everything has to be sold. A theatre can have the best shows every night, but no-one will show up if they don't know what's happening. We have to be the poster for the show. And of course, the show itself has to be good, because if the performance is bad and the poster is good, we'll fail to meet people's expectations.

Director, sales

It's hard to tell if this is a conscious behaviour by the sales director, at least he describes himself as a very entrepreneurial and informal person.

I'm a very unbureaucratic. I'm an entrepreneurial guy, so I'm a representative of one extreme, non-formalism, but this is also why I resigned as chairman of the board here. I realized that we needed more formalism as we grew, but I think I can help balance it out, so that we don't become silly formalistic.

Director, sales

6.3.4 Competitor focus

Several informants said that Making Waves does not really consider what its competitors are doing in choosing which strategies to follow. But some of them also said that they try to do the opposite of what competitors are doing, and much of management used the same phrase: "we go in the opposite direction."

Lately, we've been trying to avoid mistakes made by our competitors, and not much "me too". It is very rare that we copy competitors, quite the contrary: We have mostly gone in the opposite direction.

Senior designer / front-end developer

A manager explains how they relate to competitors:

We haven't paid much attention to our competitors. We believe in what we're doing, but we want to make reality checks sometimes, of course. Just now, I think that many of our competitors are going in the same direction, saying the same things, and it's differentiation that determines who will do best in the end. I believe that delivering products based on that is quite important.

Director, lifecycle

A project manager responded to whether she pays attention to competitors:

To some extent, because I'm heavily invested in my projects. I see what's going on in media, and what I stumble upon, but I don't actively seek such information. I rather find information about other things concerning my projects or things that are connected to project management in general. To keep myself up to date and challenged.

Project manager

The CEO explained the overall company view of their competitors:

It is extremely, extremely rare that we have copied our competitors, rather quite the opposite. They have made some stupid choices. That doesn't mean we don't respect them - we admire a lot of our competitors. But we think it's best to do things our own way, after understanding the mistakes that our competitors have done. We often go in the opposite direction.

CEO

6.3.5 Strategies for the future

In 2012, Making Waves bought a small company named Zoot, which made service design solutions. Several informants mentioned that they believed service design would be an important field in future.

I hope that the market will mature for service design in the future, because service design is a field where you consider the entire process, the entire situation for the company. What is the situation today? How is it REALLY to be a customer of ours? How is your outward appearance, how do customers perceive you through your communication channels? I think, after some time, that there will be an increasing interest in the market for really analysing what you are doing.

Senior designer / front-end developer

The director of Lifecycle told is what his thoughts on Making Waves' future is:

We will be working with service design. It requires that you have the necessary systematic approach, and that you understand the customer's solutions, and that you are able to combine the two things, meaning the analogue and the digital. And we will probably get a stronger position in the service design field.

Director, lifecycle

Branching out this way into the market of service design can be viewed as a way to acquire new customers. But the Director of Sales does not agree.

No, not really. We have been providing the same services all the time, but we have continually expanded our offers within digital communication. Our main product, to put it very simply, was originally design and development of web-portals. That was what we started with. (...) But of course we are aware that service design is more than digital communications. The target groups are overlapping though. There are customers that have digital and physical meeting points with their customer again, and we can help to think holistically with them. (...) Having a digital starting point, is what we want to be known for. We do not start in the physical world and then see which digital services that can support it.

Director, sales

Making Waves is in the middle of a very good growth period where all arrows points to the sky. This clearly affects the positive outlook several employees have for the future.

The customers are becoming more mature and realizing the importance of the digital channels. In particular within the publishing and media companies. I believe those channels probably will become more and more important. (...) We are in a fortunate situation that we can choose some of our customers. It's incredibly rewarding. One can choose customers who are mature and who are interested in going all out. This is the trend we have seen in the recent years, and we will certainly see more of it.

Interaction designer 1

Both the vision and mission of Making Waves have, as explained before a particular story, and are not your stereotypical vision and mission statement. For instance they only implicitly mention their customer. So what kind of strategic choice have they done in positioning themselves in the market, especially for future growth?

The bottom line here is our vision and mission, and then we have implemented a positioning strategy or positioning statement (...) Our strategy builds on these pillars, and the most important thing is our vision of a great place to work, the other important one relates to the mission: creating delightful experiences. They're both a bit soft, they are not about the percentage growth, or profitability at a certain level, or what revenues will be in five years. We are very people oriented and very committed to our customers, but we may have lost a beacon of light such as a market positioning statement. So we came up with a positioning statement which states that the demand for Making Waves and our services in creating great customer experiences will come from big international brands. (...) Perhaps utopian, but then it is no longer us who knocks on doors or respond to tenders. Then companies come to us because they know that Making Waves can solve such and such and such and such. Then we have a position in the market which makes us very attractive.

CEO

There is a clear consensus about this market positioning strategy within the company and the manager of the project management department puts it like this:

This how I imagine that we develop. I'm very relaxed about if it happens abroad or here [in Norway].

Manager, Project management

This notion of expanding abroad is supported by other managers. They state that they want to have more customers abroad, and that having strong international offices will contribute to that goal.

I believe we will have more customers from other countries. But the trend that we see the beginning of today will become stronger in the future - I believe that we will have fewer customers with larger projects. Service design will also be more important, meaning that we'll do more service design projects than today.

Director, people & processes

The CEO also agrees that in the strive to pursue the market positioning statement, more offices internationally is imperative.

> *In order to achieve such a thing we must step out into the world, so in a way that is who we have rationalized it. And then we have analysed it from a tactical level. Analysed different approaches towards such a internationalization, and considered just moving to London or New York. (...) And then there is the most defensive strategy, which is about only identifying opportunities as single customer cases around the world, and then respond to them without a major commitment to establish ourselves in that market. Then it all becomes pretty random, and such activities we've got a lot of today already. We feel that it's too defensive, so we've landed on a mixed model of working those kinds of opportunities in parallel to enter an alliance with a couple of our technology providers, both Easy Publish and EpiServer, this to be able to work even more concrete, take customer cases and develop them on our own with these partners. (...) We made the most progress in cooperation with EpiServer for the U.S. market. That's how we singled out New York as the most likely place to establish ourselves next time. Not because it is not a competitive market, it's a crazy competitive market, but it's a large market. There are so many possibilities and EpiServer has done such a great job there, so we think it is suitable for us to piggyback on them.*
>
> *CEO*

The strategic choice to enter an alliance with their supplier is supported by the other members of the top-management group.

> *We deliver solutions based on a content management system called EpiServer. EpiServer has established itself in the United States. We are the largest EpiServer-partner in the world, and have the highest number of certified employees in their technology, and they would very much like for us to establish a presence in the United States. They have recommended New York, as a place where there are no other partners.*
>
> *Director, people & processes*

6.4 Overview and summary of empirical findings

In this chapter, we have presented several statements by our informants and grouped them together in categories based on topic. These main topics are the three core empirical categories that emerged from our process of coding and analysis, which are company culture, knowledge management, and strategic orientation. We will discuss our findings as presented in this chapter in chapters 7 and 8, and refer back to the subchapters of this chapter.

Part IV

Discussion and conclusions

7 Discussion

In the previous chapter, we presented empirical data collected through interviews with employees in Making Waves. In this chapter, we will discuss the data in context of the four main internal approaches ambidexterity, presented in subchapter 3.6. We will continue to use the structure from chapter 6, by grouping the data in three central categories, which emerged through our analysis of the empirical data: *(1) Company culture*, *(2) Knowledge management*, and *(3) Strategic orientation*. Each main chapter is divided into four subchapters, based on the four main internal approaches to ambidexterity, which are: *(1) Architectural approaches*, *(2) Contextual approaches*, *(3) Combinatorial approaches* and *(4) Management approaches*. Before we head into the discussion, we will recap our propositions and confirm that Making Waves is in fact company with a value shop configuration.

7.1 Recap of propositions

Although our propositions will be repeated throughout the discussions in the subsequent subchapters, we will present a short recap of them here. Our propositions read as follows:

1a: A value shop deliberately combines both tacit and explicit knowledge to achieve exploitation.
1b: Value shops must use contextual approaches to refine existing knowledge and acquire new knowledge.
2: An increased number of employees require a value shop to adopt a more rigid structure, which causes an increased emphasis on architectural approaches.
3a: Value shops achieve ambidexterity through their relationships with new and existing customers.
3b: When selecting which projects to pursue, leaders tend to focus more on exploitation than exploration.
4: The CEO's leadership style is crucial for the effect of contextual approaches.
5a: To solve the paradox of personal drivers, the value shop must use elements from company culture.
5b: To solve the paradox of personal drivers, the value shop must use elements from knowledge management.

We have created a framework for our discussion that illustrates how the propositions cover all of the core empirical categories, and all of the four main approaches to internal ambidexterity. The propositions in Figure 7.1 stretch over the categories they will be mentioned in, indicating what content will be discussed in each subchapter. For example, combinatorial approaches will be mentioned in subchapter 7.3.4 and 7.4.4.

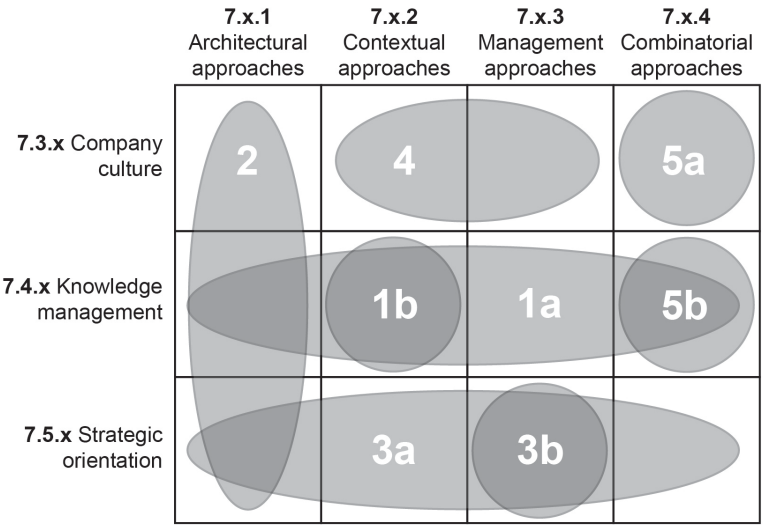


Figure 7.1 Framework for discussion.

Proposition 2 spans over all three of the empirical categories, which causes the discussion of this proposition to be more fragmented than the others. This has resulted in some overlap between chapters 7.3.1, 7.4.1 and 7.5.1, since some of the indicators of architectural approaches are relevant for two or more chapters. Similarly, propositions 5a and 5b are closely connected, and they will be discussed with some overlap in two separate subchapters.

In chapter 8, we will summarize the discussion of each proposition, evaluate them and discuss their implications. The discussion of the implications will form the basis of our conclusions and recommendations for further research presented in chapter 9. But, first we will discuss how we used our insights from the empirical data to confirm that Making Waves is a value shop.

7.2 The value shop Making Waves

As discussed in subchapter 1.4, we wanted to narrow down our scope from the generic term “service sector” to a classification we felt described our case company more accurately. We chose to use the model of value configurations, a model that is classified by how the firm creates value for its customer. In subchapter 1.4, we briefly introduced three different value configurations before we explained the model of the value shop more specifically.

Several of our propositions rely on the definition of the value shop, and we would therefore like to argue that Making Waves is a value shop based on our empirical data. We will base this discussion on the properties of a value shop as explained in subchapter 1.4 (Stabell and Fjeldstad, 1998):

- **Problem finding and acquisition** - Recording, reviewing, and formulating the problem to be solved and choosing the overall approach to solving the problem.
- **Problem solving** - Generating and evaluating alternative solutions.
- **Choice** - Choosing among alternative problem solutions.

- **Execution** - Communicating, organizing, and implementing the chosen solution.
- **Control and evaluation** - Measuring and evaluating to what extent implementation has solved the initial problem statement.

We will now explain how Making Waves has properties that make this organization a value shop, based on the empirical data we collected on the company.

Problem finding and acquisition
Making Waves do specific projects for customers, based on customer needs (chapter 5). They have thorough discussions with customers before, and during, projects to figure out what the customer wants and decide what needs to be done (chapter 6). Thus, they work with problem finding and acquisition within the value shop framework.

Problem solving and choice
Considering that Making Waves has a running dialog with customers (chapter 6), and a broad technical expertise (chapter 5), their work process involves discussing many alternative solutions, both internally in project teams, and with customers. We have not immersed ourselves in details of their project execution method, but we know that they involve customers directly in projects (chapter 6). This means that Making Waves most likely generate and evaluate different solutions with their customers, and they use customer input to chose between the alternative solutions, meaning that they carry out problem solving and choice.

Execution
No project, or other processes for that matter, would ever be finished and delivered without the element of execution. It is a natural part of the value creation process, and since Making Waves' business model is to deliver completed projects to their customers, they are able to execute.

Control and evaluation
To make sure that an organization is cost effective and actually solves the customer problem, it is important to continuously measure and evaluate projects. Having a running dialog with the customers is an effective way of knowing whether one is actually solving the right problem. Making Waves' increasing profitability (chapter 5) indicates many satisfied customers, which means that the company is solving the right problems. Thus, Making Waves use control and evaluation within the value shop framework.

As we can see, the operations in Making Waves coincides well with the different steps in the value shop configuration. In addition, Making Waves are described in chapter 5 as technology intensive. They establish different multidisciplinary project teams depending on the type of problem that needs to be solved, and rely on technology to solve problems for their customers. They also vary the different steps in the model according to the requirements of the problem at hand. On this basis, we can confirm that Making Waves has a value shop configuration, thus making our empirical findings valid as a basis to discuss our propositions.

The next subchapter will deal with the empirical core category of company culture, where we will discuss all the propositions that stretch over this category in our discussion framework. The two other empirical core categories will follow, and will be structured likewise.

7.3 Company culture

Company culture is one of the three core empirical categories that emerged from our analysis of the empirical data. In this subchapter, we will discuss the four approaches to internal ambidexterity in light of Making Waves' company culture. We will discuss propositions 2, 4 and 5a, as highlighted in Figure 7.2. The propositions will be repeated in their respective sections, as presented in Figure 7.1.

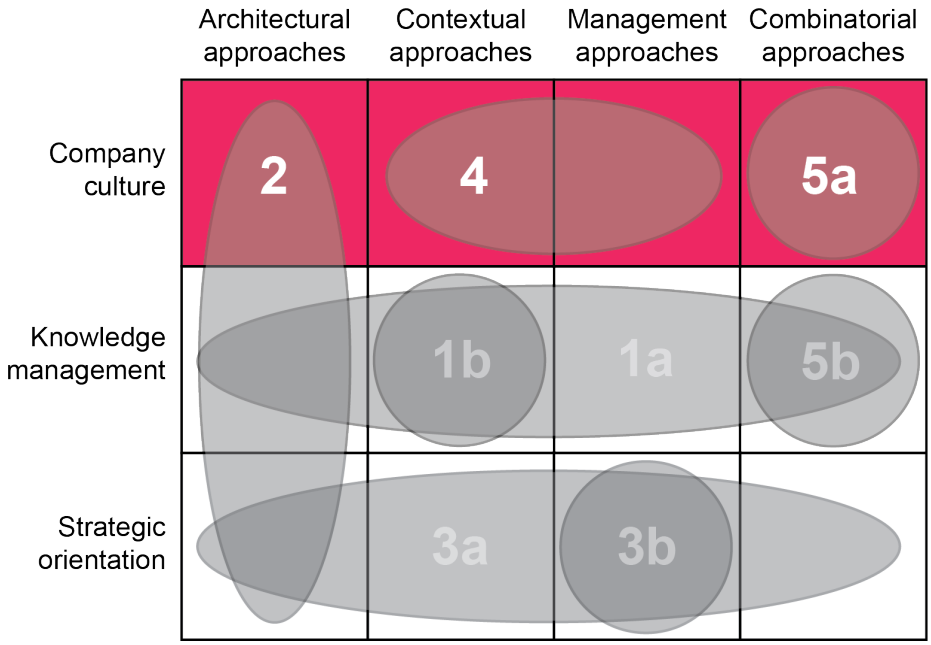
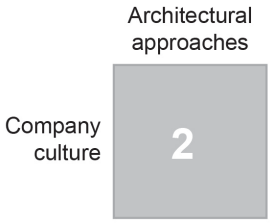


Figure 7.2 Company culture and propositions.

7.3.1 Architectural approaches

In this subchapter, we will discuss proposition 2: *An increased number of employees requires a value shop to adopt a more rigid structure, which causes an increased emphasis on architectural approaches.*



As mentioned in chapter 5, Making Waves has increased the number of employees significantly since being founded in 2001, resulting in the creation of specific business units that work with specific tasks, the implementation of several new computer systems, and many other indicators that are commonly perceived to create organizational structure. Architectural approaches include, as described in subchapter 3.5.1, the concepts of systems, spatial separation, task partitioning, temporal separation, formalization and connectedness (Tushman and O'Reilly, 1996, Gibson and Birkinshaw, 2004, Puranam et al., 2006, Jansen et al., 2006, Raisch et al., 2009, Andriopoulos and

Lewis, 2009). These are all concepts that naturally involve some sort of increase in structure, and they imply increased discrete interaction between people and/or organizational units. They entail separating, formalizing or systemizing people, units, processes, or the connection between such entities or activities.

The fact that architectural approaches imply more structure seems evident, but we want to consider the implication the other way around - that increased structure increases the need for architectural approaches. To do that, we need to prove that it's likely that Making Waves has become more structured as a direct consequence of their growth, and that architectural approaches are a natural result of this.

Proposition 2 is the only proposition that is covered by all three empirical categories, and will therefore be discussed in all three chapters. As explained earlier, the findings will be combined in subchapter 8.3 to give a comprehensive overview of proposition 2. When discussing the propositions, we will first present examples from our empirical data of the increased structure, and then examples of the increase of architectural approaches.

More structure

Making Waves went from being a small company with 14 employees where every employee by default had to fill several roles, and top managers had to work on all kinds of projects, to a company with almost 300 employees where employees usually have just one role, and managers only manage (subchapter 5.1). When Making Waves had 14 employees, they didn't have a strict structure, and we believe there are several logical reasons for this, some of which are:

- Multiple roles blurred the lines of management and the layers of hierarchy because people didn't strictly report upwards in the organisation. Low-level employees had authority over managers in some projects.
- No one considered formal systems and hierarchy necessary, because every manager knew what all the other employees were doing at all times.
- No one really knew what formal systems Making Waves should have, since the company was young and trying to find its place.

Now that Making Waves is about 20 times larger than when it was founded, management is actively trying to uphold the flat structure and lack of hierarchy (subchapter 6.1.3). It seems that the structure is no longer flat by default, although both managers and other employees want it to be. When Making Waves acquired Tarantell, and tried to implement a performance management system, it resulted in conflict, because employees perceived this as a way for management to survey and control. Employees resisted the new system, and the managers decided to reject the system (subchapter 6.1.1**).** Making Waves has aspired to keep the flat hierarchy since, but it seems very challenging to do so. The sheer number of employees makes it impossible for anyone to know what every employee does. The increased number of projects requires more administration and management, which decreases the potential for an individual to know where the company is going, and why. Without people on top coordinating the efforts of groups within the company, Making Waves would probably be diverging due to employees' conflicting perceptions of the

direction the company is taking. Having a top layer of management controlling the direction of the company means both a more rigid structure and more hierarchy.

The management in Making Waves has tried to keep the organization flat by having as few layers of management as possible. Yet, at present, they have a CEO who is in charge of five department heads, who again are in charge of 2-5 middle managers, who are in charge of a number of employees (Figure 5.1). This means that many employees have three layers of management above them.

To counteract the potential negative effects from structure and hierarchy, Making Waves arrange many social events, such as skiing trips, beer making, having all employees eating together in the dining facilities, and many others. In addition, employees spend most of their time working on projects, where they answer to the project managers on a daily basis, more than to the middle managers, which might help to break up potential rigid structures. But Making Waves still has a formal hierarchy with the three layers of management that hold power over their subordinates, so they are not trying to avoid hierarchy, just the effects they consider undesirable. In effect, they consider more hierarchy a necessity as they have grown.

More architectural approaches

As Making Waves has grown, both in number of employees and levels of management, the company has adopted several architectural approaches. The six indicators of architectural approaches are, as described in subchapter 3.5.1, Spatial separation (Tushman and O'Reilly, 1996), task partitioning (Gibson and Birkinshaw, 2004), temporal separation (Andriopoulos and Lewis, 2009), formalization (Jansen et al., 2006), and connectedness (Jansen et al., 2006). As discussed in subchapter 3.5.1, we group task partitioning together with spatial separation. As proposition 2 will be discussed within knowledge management and strategic orientation as well, we will elaborate on the architectural approaches which we believe are most connected to the company culture in this chapter, namely spatial separation, temporal separation, connectedness, and formalization.

Spatial separation

Subchapter 3.5.1 states that spatial separation is the act of separating different business units on the basis of whether they shall do explorative and exploitative activities (Raisch and Birkinshaw, 2008). Making Waves have clearly defined departments (Figure 5.1) that are responsible for different kinds of work. One informant explained that the strategy department works very creatively and come up with new ideas (subchapter 6.3.1), which means that they are explorative. The lifecycle department is in charge of maintenance of the products that Making Waves sell, which means they can be seen as somewhat exploitative (subchapter 5.3). This is an indication of spatial separation. The main problem of applying spatial separation to Making Waves, is that employees work in multidisciplinary teams. Projects involve the combination of personnel from several departments, thus creating a strong horizontal linking between employees. This can imply that spatial separation is less important in value shops, and that spatial separation is not very relevant for our discussion.

Temporal separation
Subchapter 3.5.1 states that temporal separation allows both exploration and exploitation to be done in the same business unit, but at different times (Gibson and Birkinshaw, 2004, McDonough and Leifer, 1983). In Making Waves, employees go from open ideation phases to more closed and concluding phases during projects. As Making Waves has grown, we see no evidence of there being more temporal separation within projects, or in the rest of the company for that matter. Individuals might experience a stricter temporal separation since they no longer have multiple roles, but that is related to the category of formalization. Temporal separation is still an important architectural approach to ambidexterity in Making Waves.

Connectedness
Subchapter 3.5.1 states that connectedness is the act of connecting unrelated parts of the organization together through a structure that encourages informal communication and knowledge sharing (Jansen et al., 2006). The managers we spoke to all talked about the importance of informal communication, and how it was possible for everyone to talk to anyone in their organization. Some likened informal communication to a lack of hierarchy, but we believe that these statements show a lack of understanding of hierarchy in the theoretical sense, which is that someone has power to make decisions and others do not (Ouchi, 1979). The informal communication in Making Waves is an example of connectedness, because information flows efficiently across departments and layers of management. Another example of connectedness is the social platform Yammer, described by one informant as a “Facebook for companies” (subchapter 6.2.1). Employees can use it both for sharing knowledge and socializing, and having such a system is an architectural way of creating company culture by facilitating informal communication.

Formalization
Subchapter 3.5.1 states that formalizing is about formalizing rules, procedures, job instructions and communications, writing them down or keeping them in records (Mom et al., 2007). A very specific example of formalization is when management decided to formalize the position of Minister of Culture. The employee that bears the title used to hold that position informally, but as Making Waves grew, the need for someone to maintain the company culture increased. So management made sure that 50 per cent of her time was available for tasks related to company culture (subchapter 6.1.4).

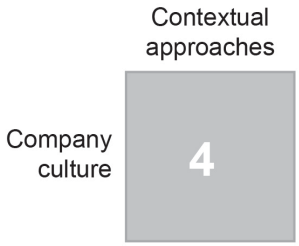
Findings related to proposition 2
A few informants viewed the increase in organizational structures as negative and wanted to limit further growth, but they understood that the increase was necessary (subchapter 6.2.4). They were not directly criticizing new structures, or measures we consider as architectural approaches, but feared losing the characteristic Making Waves culture. Most of the employees were positive to the increase in structure and architectural approaches, as they deemed them necessary and useful. The wide acceptance of the need for structure and architectural approaches strongly supports proposition 2: *An increased number of employees require a value shop to adopt a more rigid structure, which causes an increased emphasis on architectural*

approaches. We have summarized examples of architectural approaches that relate to growth below:

- Spatial separation - Some departments work with explorative tasks, and some with exploitative tasks.
- Temporal separation - Employees on projects go from an open, explorative phase to a closed, exploitative phase, this has not changed with increased company size.
- Connectedness - Much informal communication particularly facilitated by the creation of the Minister of Culture and the communication platform Yammer.
- Formalization - Several roles and procedures have been formalized as Making Waves has grown, such as the role of Minister of Culture.

7.3.2 Contextual approaches

In this subchapter, we will discuss proposition 4: *The CEO's leadership style is crucial for the effect of contextual approaches*.



This proposition deals with how management approaches and the CEO's leadership style affects contextual approaches to ambidexterity. The proposition is related to contextual and management approaches, and we will describe central contextual approaches first, so that we can discuss how and if they relate to the management approaches presented in subchapter 3.5.4. The discussion will be in context of the core empirical category of company culture.

To determine the CEO's influence on the contextual approaches to ambidexterity in Making Waves, we must first establish whether the company uses contextual approaches at all. The seven indicators of contextual approaches are, as described in subchapter 3.5.2: Stretch, discipline, support, trust, socialization, team building, and autonomy (Ghoshal and Bartlett, 1994, Raisch and Birkinshaw, 2008, Gibson and Birkinshaw, 2004). These indicators will be discussed in light of our empirical data that is related to company culture.

Stretch

Subchapter 3.5.2 states that stretch encourages employees to set ambitious goals, and is attained by collective identity and personal meaning (Gibson and Birkinshaw, 2004). Making Waves has a few indicators of stretch, such as a collective bonus system (subchapter 6.1.3), that awards every employee in the company based on overall company performance. Making Waves have removed all individual bonuses, which strengthen the collective identity, as opposed to strengthening the individuals' identity (subchapter 6.1.3). Stretch is closely linked to motivation, and managers and non-managers emphasize the systematic approach Making Waves has to motivation, mentioning their self-determination model as particularly important (subchapter 6.1.7).

Discipline
Subchapter 3.5.2 states that discipline encourages employees to strive to meet the expectations that others have of them due to their commitments. Discipline is attained by clear standards of performance, a system of open and rapid feedback, and consistency in the use of sanctions (Gibson and Birkinshaw, 2004). The use of sanctions were mentioned in relation to time, and there had been incidents where project teams used more hours than planned on fixed price projects, and management stepped in to reassess the project and help the project teams get back on track (subchapter 6.2.4). Open and rapid feedback in Making Waves is to a large degree facilitated through the project management system Jira. This system allows every employee, and the customer, to observe the progress and performance of projects, and to receive and give feedback (subchapter 6.2.1).

Support
Subchapter 3.5.2 states that support is about systems that facilitate knowledge sharing (Gibson and Birkinshaw, 2004). This could be wikis or freedom of initiative for all levels, and senior employees that prioritize guidance. Support seems to be a fundamental principle in Making Waves, since they have several systems for knowledge sharing, that are often used (Table 6.1), and because employees are allowed to work according to their own best judgement (subchapter 6.1.7). Managers also try to help employees when asked to do so, instead of micro managing (subchapter 6.1.7).

The words “support” and “help” were mentioned frequently during the interviews, and both management and employees characterize the working environment as supportive and helpful. The Norwegian way of saying that there is isn’t much aggressive competition by saying “no sharp elbows” also came up several times. We consider this to be an indicator of a supportive environment.

Trust
Subchapter 3.5.2 states that trust encourages employees to rely on each other, and trust can be attained by fair decision processes, and staffing the right people (Gibson and Birkinshaw, 2004). Our informants did not specifically mention that they trust each other, or that trust is important. We think that trust is mostly spoken of when it is lacking, and we did not expect our informants to explicitly say that they trust each other. We believe that trust is an essential part of contextual collaborative environment, and that people only think about it when it is missing.

Socialization
Subchapter 3.5.2 states that socialization creates a social context (Gibson and Birkinshaw, 2004). It is a process of inheriting and disseminating norms, customs and ideologies, providing an individual with the skills and habits necessary for participating within his or her own society (Andriopoulos and Lewis, 2009). This means that Making Waves must not only have norms, customs, and ideology, they must be able to ensure that the employees internalize them.

During the interviews, we discovered that Making Waves teach new employees the basic principles of Making Waves, including the vision and the mission (subchapter

6.1.7). They train new employees by having them observe projects so they can learn the ropes, and they send people to training courses when they are not busy with projects (subchapter 6.2.5).

Norms can be a bit difficult to grasp, since they are not explicitly defined in an organization. But there seems to be a common understanding of some basic principles of conduct, such as not being loud in the open office landscapes. Another norm seems to be that employees have lunch at the same time. We have no indicators that the inheriting and disseminating of norms, customs or ideologies are lacking in Making Waves.

Team building
Subchapter 3.5.2 states that team building is a type of socialization, and that it includes a range of activities that businesses use to improve team performance (Raisch and Birkinshaw, 2008). We learned from our interviews that Making Waves has several team building activities, such as Making Ski and Making Beer (subchapter 6.1.5**)**, and friend groups (subchapter 6.1.5). All these activities are designed so that people will get to know each other and, in effect, create a social context.

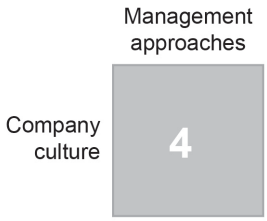
Autonomy
Subchapter 3.5.2 states that autonomy is the capacity of a rational individual to make informed and non-influenced decisions (Probst et al., 2011). Together with support, autonomy is something the informants talked about a lot. When asked how they wanted to be led, all informants responded that they wanted to have freedom, and that they wanted the manager to interfere only when they asked him to. The CEO said that he trusted his people to make all the right decisions, and that he did not have to exercise control in the daily running of the company. It became obvious that Making Waves has a high level of autonomy.

Table 7.1 Contextual approaches and company culture.

Performance management	**Social context**
Discipline ● Open and rapid feedback. ● Few signs of sanctions or discipline.	Stretch ● Collective bonus system. ● Supporting teamwork. Support ● Systems for knowledge sharing. ● Employees using their best judgement. ● Helpful managers. Trust ● An apparent level of trust in the entire company. Autonomy ● Employees given room to make their own decisions. Socialization and team building ● Employees are taught Making Waves' vision, mission and norms. ● Many social activities after work.

Findings related to proposition 4
We found several examples of contextual approaches to ambidexterity within the context of company culture in Making Waves, and we have listed them below in Table 7.1. Since proposition 4 spans over both contextual and management approaches, we will present our conclusion in subchapter 7.3.3, in addition to the proposition summary in subchapter 8.6.

7.3.3 Management approaches
In this subchapter, we will discuss proposition 4: *The CEO's leadership style is crucial for the effect of contextual approaches*.



As described in subchapter 3.5.4, managers that inhibit both the ability to adapt to market change and have a high tolerance for risk, lead organizations with a higher degree of ambidexterity (Chang and Hughes, 2012). The CEO of Making Waves is in direct contact with employees every day, and the employees report to different managers depending on the project they are working on. Due to his direct contact with the employees, we assume that he makes a particularly large impact on contextual approaches, which utilize many behavioural and social means. The CEO holds a lot of power over the company, and we assume that he therefore packs a lot of weight in discussions and other social interactions with employees.

The CEO also has a high degree of impact on the organizational structure and architectural approaches, but those areas are dominated by formal rules and regulations, and are therefore not as influenced by the CEO's personality.

As described in subchapter 3.5.4, the five main management approaches to ambidexterity are risk taking (Chang and Hughes, 2012), adaptability (Jaworski and Kohli, 1993), opening behaviours (Rosing et al., 2011), closing behaviours (Rosing et al., 2011), and the temporal ability to switch between opening and closing behaviours (Rosing et al., 2011). We will explain how the CEO performs within each of those categories, and in the end of this subchapter, we will link them to the findings of the contextual indicators.

Risk taking
Subchapter 3.5.4 states that risk taking has to do with the degree of risk a leader takes or tolerates (Lumpkin and Dess, 1996). From what we learned in subchapters 6.1.7 and 6.3.1, we interpret that the CEO is quite risk tolerant in his approach to both the daily management of Making Waves, and in laying the long-term strategies. For example, the reasoning behind establishing an office in New York is partly that a partner of Making Waves recommended it, but mostly because of the passion the CEO and the other managers have for New York. They clearly hope to transfer this passion to the rest of Making Waves, thus making the New York branch a success (subchapter 6.3.1). The strategy is not founded on analysis or calculations, but on what seems to be a gut feeling. We consider relying on the CEO's gut feeling a risky strategy.

We consider high risk tolerance to be closely related to autonomy and trust in the contextual perspective of managing employees. Letting employees make their own decisions shows trust from the manager, and requires the manager to accept risk, especially when an employee does not have much experience. The *safe* way might be to micro-manage more, to ensure that employees do not make big mistakes, but this might also limit employees' potential for creativity and finding their own solutions. Also, in the contextual ambidexterity perspective, trust is also about staffing the right people.

One can therefore argue that granting the *right people* autonomy isn't that risky, but rather quite safe. But deciding on which employees are to be defined as the right people. There is just no way to tell for sure when hiring, so granting employees autonomy therefore involves risk. We suspect that a risk-averse CEO might not be willing to grant employees the same level of autonomy as the CEO of Making Waves. This shows a clear connection of how the management approach of risk-taking affects the contextual approach of trust and autonomy, and that he or she would therefore not use as many contextual approaches to ambidexterity.

Adaptability
Subchapter 3.5.4 states that being adaptable means being willing to change with a changing environment, and in the case of organizational theory it is has to do with being adaptable to market changes. An adaptive leader will stress to employees the importance of adapting to market trends, being aware of competitors and acting now to meet customer's future needs (Jaworski and Kohli, 1993).

The CEO has demonstrated ability and will to make changes in Making Waves. One definite example is when he fired all designers at the Polish offices (subchapter 6.1.7), to turn it into a pure programming unit. He also spoke a lot about differentiating Making Waves from its competitors by being the best in the market, making customers prefer Making Waves to others (subchapter 6.2.5). To follow up such a statement, he has to pay close attention to what competitors do, and thereby have an overview of the market.

The CEO does not, however, tell employees to adapt to market trends or be particularly aware of competitors. The director of the Lifecycle department even claims that they do not pay attention to competitors at all (subchapter 6.3.4). Making Waves seems to encourage employees to update their skills to meet future customer needs (subchapter 6.2.6), but we do not see any particular connection between that and the CEO's focus. We believe that the process of updating skills is connected to formal processes within Making Waves.

Opening behaviours
Subchapter 3.5.4 states that opening behaviours are behaviours that encourage exploration. Examples of opening leadership behaviours are encouraging experimentation with different ideas, allowing errors, encouraging error learning, allowing different ways of accomplishing tasks and motivating employees to take risk (Rosing et al., 2011).

Opening behaviours is basically about allowing employees to accept risk, as exploration yields potential long term profits, involving more risk than exploitation (Rosing et al., 2011). It is also closely related to autonomy, as employees are allowed to make mistakes themselves (subchapter 6.2.4). It is also related to a level of trust, but not necessarily trust in that employees will make the correct decisions, but rather that they will do their best. We have already argued that the CEO allows autonomy and accepts risk, so we consider him very capable of opening behaviours.

Closing behaviours
Subchapter 3.5.4 states that closing behaviours are behaviours that encourage exploration. Examples of closing leadership are establishing routines, sticking to plans, sanctioning errors, monitoring and controlling goal attainment, taking corrective action and controlling adherence to rules (Rosing et al., 2011).

Closing behaviours is basically about creating formal goals and implementing sanctions, and being a bit on the micro-managing. Despite being an advocate for opening behaviours, the CEO of Making Waves is also capable of giving clear instructions. He explained how he acted when he needed employees to perform better in subchapter 6.1.7:

> *I use many methods. Sometimes I cry, sometimes I yell loudly and tell people off. Other times, I treat people like kittens, being kind and sensitive, smile at them and pat them on their backs while saying that they have to perform better.*

That answer emphasizes that the CEO uses his personality when enforcing rules and making employees understand the importance of his instructions.

We believe that closing behaviours are strongly connected to “discipline”, but also to “stretch”. The discipline aspect of making employees strive to meet the expectations of others seems obvious, but also stretch, which is about employees setting ambitious goals for themselves, are probably affected by the CEO involving himself directly in affairs. We have already argued that discipline is not actively used in Making Waves, but if we had studied the Polish office closer, we might have had found more examples of discipline there.

Temporal switching
Subchapter 3.5.4 states that temporal switching is switching between opening and closing behaviours to encourage employees to work with either explorative or exploitative tasks (Rosing et al., 2011).

We have already established that the CEO is capable of both opening and closing behaviours. Since the two behaviours are opposites of each other, they cannot be displayed at the same, so the CEO has to be capable of temporal switching between them. He seemed a little unsure of his own ability to switch between the two behaviours, by mentioning that he wants to grant people the ability to make all kinds of decisions, but that he sees his own nature as controlling. He even fears that he is seen as a dominating and manipulating leader. However, none of the other

informants spoke of him in this way. They described him as someone you can talk to at all times, and who listens to what people say. It therefore seems that the CEO is capable of switching between opening and closing behaviours, despite his own doubts.

Insights related to proposition 4

It seems that the CEO of Making Waves is strongly involved in several of the contextual approaches, especially within stretch, support, trust, and autonomy, related to for proposition 4: T*he CEO's leadership style is crucial for the effect of contextual approaches*. We have summarized our findings in Table 7.2 below by combinatorial approaches and how the management approaches relate to them. We have also made a more general Figure 7.3 to show the relationship between the management approaches and the contextual approaches.

Table 7.2 Management approaches affecting contextual approaches.

Contextual approaches	Management approaches
• Stretch - Collective bonus system, supporting teamwork. • Support - Systems for knowledge sharing, employees using their best judgement, helpful managers. • Socialization - Employees are taught Making Waves' vision, mission and norms. • Team building - Many social activities after work. • Autonomy - Employees given room to make their own decisions. • Trust - An apparent level of trust in the entire company.	• Risk taking - CEO accepts risks and allows employees to make choices (Connected to Trust and Autonomy) • Adaptability - CEO and management change strategies based on market knowledge (Connected to Socialization). • Opening behaviour - CEO accepts that employees can make risky choices themselves (Connected to Trust and autonomy). • Closing behaviour - CEO is able to make tough decisions, such as restructuring Making Waves Poland (Connected to Discipline and Stretch). • Temporal switching - CEO is able to exhibit opening behaviours and closing behaviours when needed, being mostly open.

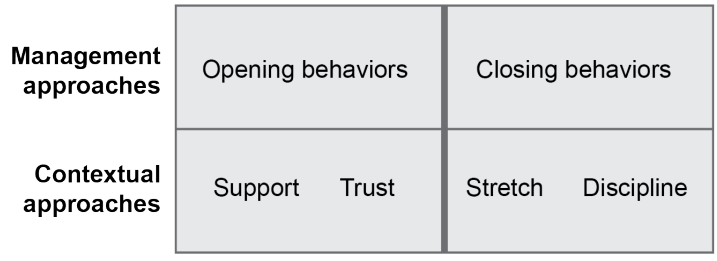
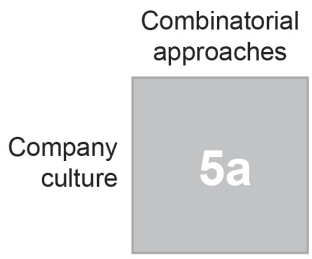


Figure 7.3 Management approaches and contextual approaches

7.3.4 Combinatorial approaches

In this subchapter, we will discuss proposition 5a: *To solve the paradox of personal drivers, the value shop must use elements from company culture*.



As described in subchapter 3.5.3, personal drivers represents a strain between discipline and passion, both characteristics needed to successfully innovate (Andriopoulos and Lewis, 2009). The solution is socializing practical artists while at the same time temporally and structurally separating work modes (subchapter 3.5.3). We assumed socialization would be closely related to the company culture, due to the interpersonal nature of socialization.

We suspected that using personal drivers would teach employees to be individually ambidextrous and able to understand the need to be responsible individuals that interact through norms, unwritten rules and high-level instructions, while at the same time being aware of the need of formal systems and specific tasks. The formal systems and tasks must be completed and reported, and this must be carried out in both explorative and exploitative phases. In short: When dealing with personal drivers, an organization must make employees adopt the essence of both architectural and contextual approaches to ambidexterity.

In this subchapter (subchapter 7.2), we have already argued that Making Waves has adopted many contextual approaches to ambidexterity, while at the same time displaying signs of architectural approaches. If ambidexterity in Making Waves is efficient, they therefore must be able to combine the two approaches. It is not within the scope of this thesis to determine whether Making Waves is in fact ambidextrous, which could perhaps be proven by Making Waves surviving as a company indefinitely. We will just determine whether Making Waves use their strong company culture to solve the paradox of personal ambidexterity by combining architectural and contextual approaches to ambidexterity.

Personal drivers in Making Waves

Most employees in Making Waves work on projects, and all projects have a defined start and end, and go from an open, searching phase to a closed, finishing phase. This is a way of temporally structuring work modes, representing one half of the way to solve the paradox of personal drivers. We do not find that temporal structuring has any direct link to company culture, and we will discuss temporal and structural separation of work modes in subchapter 7.4.4.

We explained in subchapter 3.5.3 that socialization of “practical artists” has to do with nurturing paradoxical identities within people through hiring, educating and mentoring (Andriopoulos and Lewis, 2009). We will discuss education of employees in subchapter 7.4 in connection with proposition 5b, whereas we will deal with mentoring in this subchapter, which we consider to be the aspect of socializing practical artists that is closest related to company culture.

We find that mentoring is closely related to the way Making Waves practice autonomy and support within the field of contextual ambidexterity, as a mentor is someone who has a high level of knowledge within a field of work. A mentor can be asked questions, and give guidance, without managing the mentee. Having an open company culture with a flat structure like Making Waves probably makes it easier to use mentors. Several informants described that they receive help and guidance from co-workers and managers, and many of them seem to have one or two individuals they turn to if they have questions (subchapters 6.1.6 and 6.1.7).

Findings related to proposition 5a

It seems like Making Waves uses its company culture to teach employees to both use their own judgement on whether to be explorative or exploitative, and accept the need for more formal systems that provide direction. They also seem to have an informal, yet extensive, culture of mentoring, thus supporting proposition 5a. However, we do not find particularly strong connections between separating work modes and company culture. The best example we can find, is that they seem to clearly separate between time set aside for working, and time set aside for socializing and team building, which seems rooted in the company culture.

Making Waves does not use only company culture as the means to socialize practical artists, as we will describe in subchapter 7.4.4 when discussing proposition 5b. We have summarized our findings from this subchapter in Table 7.3 below, and will continue our discussion of practical artists in subchapter 7.4.4.

Table 7.3 The paradox of personal drivers in Making Waves.

Socializing practical artists	**Separating work modes**
Making Waves puts an emphasis on mentoring, where experienced employees help others.	Projects have several phases, from explorative to exploitative.

7.4 Knowledge management

Knowledge management is the second of the three core empirical categories that emerged from our analysis of the interview data. In this subchapter, we will discuss all the four main approaches to internal ambidexterity in light of knowledge management in Making Waves. Proposition 1a, 1b, 2 and 5b will be described in the respective sections they cover, as presented in Figure 7.4.

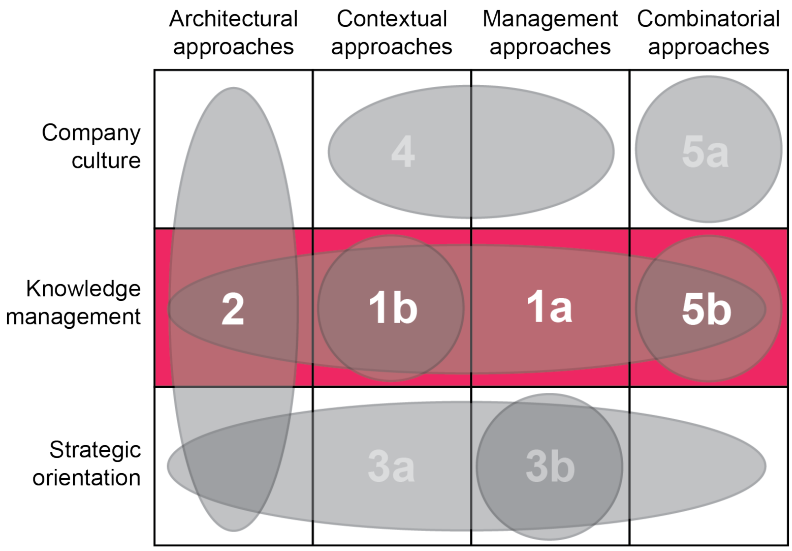
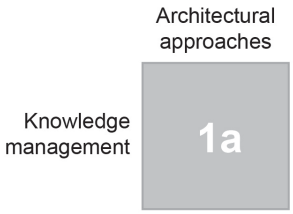


Figure 7.4 Knowledge mangagement and the propositions.

7.4.1 Architectural approaches

In this subchapter, we will discuss proposition 1a: *A value shop deliberately combines both tacit and explicit knowledge to achieve exploitation*, and proposition 2: *An increased number of employees require a value shop to adopt a more rigid structure, which causes an increased emphasis on architectural approaches.*



We will first discuss proposition 1a, which will be mentioned in the three first subchapters of subchapter 7.4. We will therefore summarize the findings at the end of every subchapter that proposition 1a is handled in. We will present a complete overview of proposition 1a in subchapter 8.1.

As described in subchapter 2.3, the act of exploitation helps an organization get better at what it already knows how to do (March, 1991). Exploitation has to do with refining the company's existing competencies, and competencies can involve knowledge that is both explicit and tacit (Jansen, 2005). Making Waves is a consultancy company that creates digital services for a wide array of customers, and the employees are organized in multidisciplinary teams, working on projects. Making Waves' competencies are therefore related to the knowledge about how to develop digital services in a team context, and within a set time-period. Most of Making Waves' employees are highly trained and have several years of experience, which led us to assume that they possess a high degree of both explicit and tacit knowledge. Since Making Waves is a knowledge intensive company of a substantial size, we also think that one of the most important ways they can achieve exploitation is by efficiently sharing the accumulated knowledge that the employees possess across the organization.

Tacit knowledge

Tacit knowledge is not written down or formalized, but exists within employees. One way of spreading tacit knowledge is by having employees work next to each other,

because it is easier to acquire tacit knowledge by watching and learning than by simply being told what to do (Nonaka, 1994). As discussed by an informant in subchapter 6.2.5, the project members that work within the same field strive to sit close to each other while working on the same projects. The same informant explained that technologists that work on the same team sit together, but that the designers tend to sit with their business unit, even though they are not working on the same project. We think that this indicates that employees learn better by sitting with people working within the same field of knowledge. The reason that technologists sit together and the designers do not, is most likely that there are often several technologists on the same project, and seldom more than one or two designers. In subchapter 6.2.4 an interaction designer expressed her concern that having project members sit with their business units instead of the project group could hamper knowledge sharing. The Director of People and Processes explained that they had discussed changing the organizational structure from discipline-based to market-based, but that the current structure is working fine. Knowledge could flow more easily between interdisciplinary teams by changing to a market domain based structure, but the downside may be that it is harder for employees to gain new knowledge within their own field. They would lose opportunities to cross-pollinate information and ideas with people from their field of specialty.

Two ways Making Waves has become more structured is through the establishment of a Project Management Office (PMO) and the creation of the new role of engagement directors. Both are examples of Making Waves using architectural approaches to ambidexterity. The manager of the PMO explains in subchapter 6.2.4 that the goal of the PMO is to make projects flow better. In our opinion, there would not be a need for a PMO if the knowledge on how to make projects flow better was made explicit and easy to transfer. The experiences and tacit knowledge that the PMO contributes with are efficiently shared through the organizational structure.

The new engagement director role that has been established in Making Waves, has been discussed and developed thoroughly, as described in subchapter 6.3.2. The engagement directors will be responsible for a market segment instead of a business unit, and his or her job will be, among other things, to spread domain knowledge throughout the organization. In subchapter 6.2.5, the CEO explained that the new position creates a new level of structure. We anticipate that the results of such a level of structure binds the organization together horizontally by markets as well as vertically by business units, and we have illustrated our assumption in Figure 7.5.

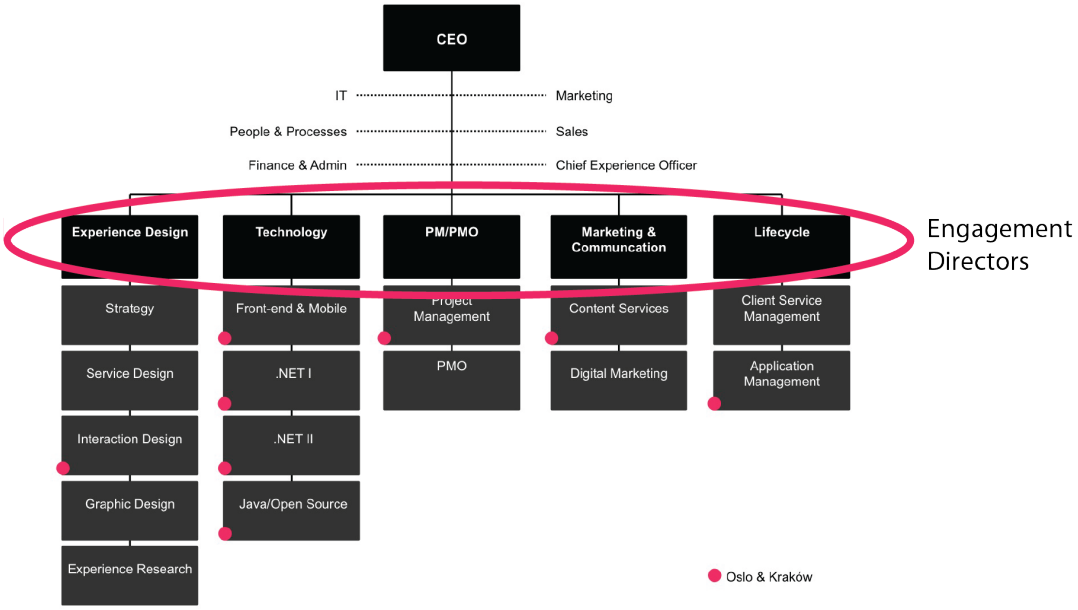


Figure 7.5 Structural implications the engagement directors will have.

Explicit knowledge

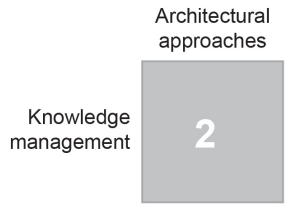
The computer systems that Making Waves use are good examples of an architectural approach for sharing knowledge, because all systems contain explicit knowledge stored digitally, in the form of information about customers, employees, methodologies, technical tool-kits, best practices and more. Table 6.1 in subchapter 6.2.1 is a complete overview of all the computer systems. However, not all systems are useful all the time. A project manager described how the wiki Confluence feels "dead", and more like a filing system than something that can be used to share knowledge (subchapter 6.2.1). A senior system developer explains that the "company Facebook" Yammer can be just as informative as some of the documentation that is shared in Confluence. In subchapter 6.2.1, informants told us of the fairly recent decision to upgrade The Wavemaker, which is an overview of all the methodologies used in Making Waves, as an effort to increase knowledge sharing.

Findings related to proposition 1a

We have found several examples of tacit knowledge being utilized through architectural approaches in Making Waves, thus supporting half of proposition 1a: *A value shop deliberately combines both tacit and explicit knowledge to achieve exploitation.* We have also found several examples of explicit knowledge being utilized through architectural approaches, thus supporting the other half of proposition 1a. A summary of these findings regarding proposition 1a, in the context of knowledge management, is presented in Table 7.4. A summary of proposition 1a including findings from all four approaches to ambidexterity will be presented in subchapter 8.1.

Table 7.4 Architectural approaches and knowledge.

Architectural approaches	
Tacit	**Explicit**
Employees working together in projects or in their departments. Talks of reconfiguring the departments. Establishing a PM-Office. Establishing engagement director positions.	Wiki (Confluence) Project management software (Jira) Yammer (social platform) The Wavemaker (methodology overview)



We will now discuss proposition 2: *An increased number of employees require a value shop to adopt a more rigid structure, which causes an increased emphasis on architectural approaches.* Proposition 2 assumes that company growth intuitively leads to more company structure, and that architectural approaches to ambidexterity become more relevant with this increased structure. We will now discuss how proposition 2 relates to the topic of knowledge management in Making Waves, but please remember that proposition 2 concerns itself with all three empirical categories, and will be summed up in subchapter 8.3.

Knowledge management is the principle of refining, sharing and gaining knowledge (chapter 6). We found that knowledge exists tacitly in the employees of Making Waves, and explicitly in the form of written material that can be found in the company's computer systems and other written material. As described in subchapter 3.5.1, architectural approaches include creating a high degree of formalization and connectedness. This is being implemented having by procedures written down in records and a structure that encourages informal communication and knowledge sharing (Raisch and Birkinshaw, 2008). Making Waves' emphasis on formalization and connectedness through the company's computer systems is a strong example of architectural approaches related to knowledge management.

Our informants explain the different computer systems they use in subchapter 6.2.1, and we'll do a recap here: intranet (The Wave), knowledge management (Confluence), project management (Jira), company social network (Yammer) and methodology systems (Wavemaker). We find indications that there has been an increased emphasis on using them in subchapter 6.2.2**.** A manager explains that the company's growth results in new requirements for Wavemaker, and the director for Experience designs explains that Wavemaker up until now has evolved rather haphazardly, but that they are now in the process of renewing it. The methodology system is used to share knowledge about project execution, and we believe that the rationale behind the upgrade is to facilitate connectedness in the organization. Wavemaker is also an example of formalization, as it is an overview of the different procedures written down and kept on record. We think the reason for doing so is that

the sharp increase in employees makes it more difficult to spread knowledge by holding meetings and informal talks by the coffee machine.

The question of merging certain departments that was raised in subchapter 6.2.5 is, from our perspective, closely related to spatial separation, which is an architectural approach. The question has been raised due to the fact that Making Waves has become larger, and the management are worried that large business units will create so-called “knowledge-silos”, which will make it difficult to share knowledge throughout the company. The act of merging the front-end and graphical department, an example given by the CEO (subchapter 6.2.6), would result in a different organizational structure. Employees will still be working in a structurally separate environment, but there is no evidence that a restructuring will create more spatial separation. This means that we cannot use this example to support our proposition. But we feel that it is necessary to discuss whether spatial separation is a useful approach for Making Waves. Making Waves is a consultancy company, and the employees work in project teams. The structures of the different departments is a way of gathering knowledge workers within the same field of specialty, but no employees usually work and create value for their customer within the boundaries of their department. The value creation, in accordance with the value shop configuration takes place mainly in the temporary project teams.

We showed that some employees work at their customers’ offices in subchapter 6.2.5, some sit with the other people from their own business unit, and some sit with their project team. This means that even though the organizational chart in chapter 5 depicts Making Waves as an organization with strictly separated business units, the majority of the employees actually work in interdisciplinary teams composed of several employees from across the various business units. We believe that spatial separation does not contribute to architectural ambidexterity in Making Waves.

The PM-Office and the new role of engagement directors represent new layers in the matrix organization structure in Making Waves. We have described the changes these positions bring about in the beginning of this chapter, so we will not repeat them here. Instead, we will claim that introducing these new functions will create more connectedness, as they will connect unrelated parts of the organization closer together. The PMO will connect the sales department and project teams closer together, and the engagement directors will be responsible for linking together employees with different department affiliation working within the same market segment.

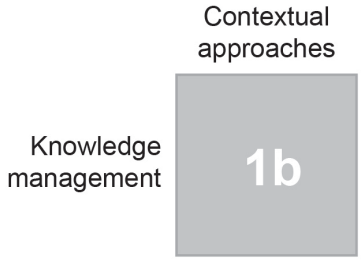
Findings related proposition 2

As explained previously, proposition 2 assumes that company growth intuitively leads to more company structure, and that architectural approaches to ambidexterity become more relevant with this increased structure. We have now discussed how proposition 2 relates to the topic of knowledge management in Making Waves, and or findings are summarized in the list below.

- Formalization and connectedness – Updating the methodology system.
- Changing the organizational structure by merging departments (spatial separation, but not relevant to Making Waves).
- Connectedness - Introducing new layers of management in the form of the PMO office and the engagement director position.

7.4.2 Contextual approaches

In this subchapter, we will discuss both proposition 1a: *A value shop deliberately combines both tacit and explicit knowledge to achieve exploitation*, and proposition 1b: *Value shops must use contextual approaches to refine existing knowledge and acquire new knowledge*.



We will first discuss proposition 1a, and how 1a relates to the topic of knowledge management in Making Waves, by providing examples of how the company utilizes both tacit and explicit knowledge. We will first cover the hybrid profiles that the company wishes to focus on, and then explain how their systems, vision and sharing are related to knowledge.

Successful hybrids

A contextual approach for sharing tacit knowledge is the creation of hybrid profiles, meaning that employees have more than one field of expertise (subchapter 6.2.3). In subchapter 6.2.3, the hybrid profiles are described as valuable to projects because knowledge flows easier if project members have overlapping skills. A lot of the knowledge that hybrid profiles possess is tacit, and we think that is especially true about the knowledge they have about combining their two profiles. In subchapter 6.2.6, we found that extra employees are added to projects as apprentices, at no extra cost for the customer. We consider the knowledge that is transferred from experienced employees to inexperienced employees tacit. If the knowledge were explicit, the management in Making Waves would simply ask the experienced employees to write what they know in a document, saving the cost of having a new employee on a project without billing the customer.

Systems, visions and sharing

We also found examples of explicit knowledge in that employees write down and archive their knowledge (subchapter 6.2.1) in computer systems. The creation of these systems is an architectural approach, but how employees use the systems is influenced by contextual approaches. We also found that tacit knowledge is transformed to explicit knowledge through sharing at internal seminars. Another example of explicit knowledge shared by contextual approaches is the vision and mission statement that most employees know by heart. From subchapter 6.1.1, we learn that the vision of a “fantastic place to work” is something that is well known to virtually everybody, and in our view ingrained in Making Waves’ culture. The same goes for the design thinking methodology, which is communicated through an explicit symbol of three intertwined circles as tacit knowledge. In subchapter 6.1.2, an informant drew the methodology framework on the wall, and two other informants

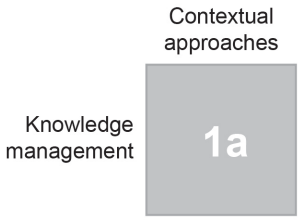
drew the figure when explaining their work processes, as well. Having these explicit and ingrained rules to live by is in our opinion a contextual approach to help employees work towards contextual ambidexterity. The culture for sharing and supporting, as explained in subchapter 7.3.2, is an important aspect both for the company culture and knowledge sharing. In subchapter 6.2.3, a senior designer explained how people often are willing to set aside what they are doing to help their co-workers. That principle of knowledge sharing is tacit, since they help their peers by working with them on their projects.

Findings related to proposition 1a

We find support for that Making Waves deliberately use contextual approaches to combine both tacit and explicit knowledge to achieve exploitation, thus supporting proposition 1a. Our findings are summarized in Table 7.5 below.

Table 7.5 Contextual approaches and knowledge.

Contextual approaches	
Tacit	**Explicit**
● Sharing culture. ● Hybrid profiles. ● Apprenticing in projects.	● Making tacit knowledge explicit through systems and seminars. ● Vision, mission and design thinking. ● Methodology explicitly memorized.



We will now discuss Proposition 1b: *Value shops must use contextual approaches to refine existing knowledge and acquire new knowledge*. Subchapter 3.5.1 states that contextual approaches have to do with using behavioural and social means to lead the organization towards ambidexterity (Gibson and Birkinshaw, 2004). In order to do so, an organization must create a business system of performance management, which deals with discipline and the right social context through an interaction of stretch, support and trust (Ghoshal and Bartlett, 1994), but we will also consider the element of socialization, as it is a fundamental principle in Making Waves, and an indicator of contextual approaches. We will discuss how these five indicators manifest themselves in Making Waves.

Support

Subchapter 3.5.2 states that support is about systems that facilitate knowledge sharing, such as wikis, freedom of initiative for all levels, and senior employees that prioritize guidance (Gibson and Birkinshaw, 2004). We think that refining existing knowledge in an organization can be done by making sure that information is shared efficiently between people working there. In subchapter 6.2.3, a senior designer explained that the employees are comfortable asking each other for help, and a manager explains that the culture of sharing can be found in all parts of the company. We believe that this indicates that the senior level of management prioritizes

guidance of others, which we explained in subchapter 3.5.2 is a way of creating support (Gibson and Birkinshaw, 2004), and an example of refining existing knowledge.

Another way that Making Waves shares knowledge is through the development of hybrid profiles (subchapter 6.2.3). Our understanding of hybrid profiles is employees that are specialists within two or more fields, such as programming and interaction design. An informant explains that hybrid profiles leads to better solutions, which we believe is due to the fact that knowledge is shared more easily in both projects and in the organizations as a whole when a person has knowledge of more than one field of work. From what we understood, employees were free to decide if they wanted to develop skills within more than one fields of knowledge or not. We interpret this as a freedom of initiative, which we explained in subchapter 3.5.2 is a way to induce support (Gibson and Birkinshaw, 2004).

Stretch

Subchapter 3.5.2 states that stretch encourages employees to set ambitious goals, and is attained by collective identity and personal meaning (Gibson and Birkinshaw, 2004). A contextual approach related to knowledge management in Making Waves is the creation of friend-groups. One can argue that this borders on architectural approaches, since it is a structuring of people. But since this structure does not have anything to do with the organizational structure, but is an informal gathering of friends, we interpret it as a contextual approach. The effects of the friend-groups are undeniably social and behavioural. A project manager that participates in such friend groups tells us that the arrangement builds trust and communication (subchapter 6.2.3). We are convinced that these friend-groups result the group-members getting to know each other better, and by that establishing a collective identity. In subchapter 7.3.2, we argued that the friend group idea is an indicator of team building, but the friend groups also serve also a way of creating stretch.

Trust

Subchapter 3.5.2 states that trust is an attribute of context that encourages employees to rely on each other. Attained by fair decision processes, involvement in decisions and staffing the right people (Gibson and Birkinshaw, 2004). It evident that the employees' own wishes and goals are important to the managers and that employees are allowed to weigh in on the decisions about what projects they wish to work on (subchapter 6.2.4**)**. This gives us the impression that they care about the employees, and by showing that they care they foster trust in the organization. Involvement in decisions and fair decision making are both ways of cultivating trust, as we explained in subchapter 3.5.2 (Gibson and Birkinshaw, 2004).

Socialization

Subchapter 3.5.2 states that socialization creates a social context. It is a process of inheriting and disseminating norms, customs and ideologies, providing an individual with the skills and habits necessary for participating within his or her own society (Andriopoulos and Lewis, 2009). Employees in Making Waves are given time to develop their skills and learn new things (subchapter 6.2.6). Based on the interviews, it seems that employees can decide what they wish to learn, and can partly decide

themselves which seminars they wish to attend, or which books they want to read. The billing-percentage of 70-80 allows ample time for the employees to improve themselves. Another contextual approach that results in new knowledge, is bringing new people into the organization. This can be done by hiring new employees, or by acquiring or merging with other companies. The acquiring and merging approach is architectural in the way that it involves a re-structuring of Making Waves. But the social implication of this is new people with new knowledge being integrated into the company. It is our belief that by integrating new employees into Making Waves, the knowledge that these people possess will eventually be distributed within the organization when they interact with their co-workers. A manager explains in subchapter 6.2.6 that Making Waves has shown an ability to renew itself through the integration of the acquired service design company Zoot. From our perspective, a company is only successfully integrated through a socialization process. Since several of our informants that were previously a part of an acquired company expressed that they felt like a part of Making Waves, we believe that Making Waves has an efficient socialization process.

Discipline

Subchapter 3.5.2 states that discipline encourages employees to strive to meet the expectations that others have towards them due to their commitments. Discipline is attained by clear standards of performance, a system of open and rapid feedback and consistency in the use of sanctions (Gibson and Birkinshaw, 2004). As explained in subchapter 7.3.2, we could not find any good examples of discipline being practiced in Making Waves in a cultural context, and we are not able to find examples in a knowledge-sharing context, either. Sanctions and formal commitments to others in Making Waves are not mentioned by any of the informants.

Refining and acquiring knowledge

Based on our discussion of stretch, support, trust, socialization, and discipline, we have found several methods of knowledge refinement and knowledge acquiring, which we have summarized in Table 7.6 below.

Table 7.6 Contextual approaches and knowledge.

Contextual approaches for refining existing knowledge	**Contextual approaches for acquiring new knowledge**
• Support – A culture of sharing, a result of senior employees that prioritize guidance. • Support - Development of hybrid profiles, which provides freedom of initiative. • Stretch - Friend-groups that create a collective identity. • Trust – Employees are involved in decisions.	• Stretch - Employees have time to learn new things, which provide personal meaning. • Trust - Hiring the right people. • Socialization - Acquiring and integrating new companies.

Findings related to proposition 1b

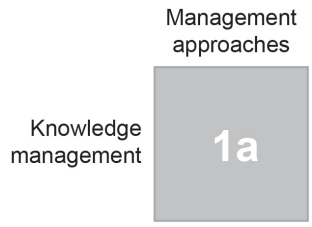
We have placed the different contextual approaches within the model under the category where they belong in order to compare our empirical data with our theoretical model (Table 7.7). It became evident that Making Waves does not use performance management as a contextual approach towards ambidexterity. In fact, we found specifically that the management of Making Waves decided to discontinue the policy of using performance management altogether, and they trashed the performance management system that they had spent thousands of hours making (subchapter 6.1.1). Thus, we cannot support proposition 1b.

Table 7.7 Emphasis on social context, and not performance management.

Performance management	Social context
Discipline	**Stretch** ● Employees have time to learn new things ● Collective identity **Support** ● Culture of sharing ● Development of hybrid profiles **Trust** ● Hiring new people ● Employees motivation and wishes important **Socialization and team building** ● Acquiring and integrating new firms

7.4.3 Management approaches

In this subchapter, we will discuss proposition 1a: *A value shop deliberately combines both tacit and explicit knowledge to achieve exploitation.*



As we explained in subchapter 3.5.4, management approaches have to do with the characteristics of the managers and how they do things, as opposed to what is done, which is more closely linked to architectural and contextual approaches (Rosing et al., 2011). Risk-taking, adaptability and opening and closing behaviours are indicators of management approaches, and we will evaluate empirical data related to these themes in the context of how Making Waves combines tacit and explicit knowledge in their organization.

Risk taking

Subchapter 3.5.4 states that risk-taking managers may lead to a more ambidextrous organization (Chang and Hughes, 2012). We believe that the choices related to the update of the computer system Wavemaker, that are addressed in subchapter 6.2.2, provide us an example of the management displaying a risk-taking behaviour, because they have gotten mixed feedback on the system and its usefulness, and

they still decided to invest resources in updating it. Spending money on a system that may not generate returns is risky.

Adaptability
Subchapter 3.5.4 states that being adaptable means being willing to change with a changing environment, and in the case of organizational theory, has to do with being adaptable to market changes. An adaptive leader will stress to employees the importance of adapting to market trends, being aware of competitors and the need of acting now to meet customer's future needs (Jaworski and Kohli, 1993). The establishment of the new PM-Office and the engagement directors is in our opinion a display of adaptability, as Making Waves now is in a situation where they are large enough to focus on certain market segments. The CEO explains in subchapter 6.2.5 that they have employed engagement directors to be responsible for the segments and the employees working in the particular segments. The desired result of this is to create synergies, and we believe that this will help Making Waves be better at serving the segments they have chosen to focus on.

Opening and closing behaviours
Subchapter 3.5.4 states that opening behaviours are behaviours that encourage exploration (Rosing et al., 2011). Examples of opening behaviours are encouraging experimentation with different ideas, allowing errors, and encouraging error learning, allowing different ways of accomplishing tasks and motivating employees to take risk. Closing behaviours are behaviours that encourage exploration. Examples of closing behaviours are establishing routines, sticking to plans, sanctioning errors, monitoring and controlling goal attainment, taking corrective action and controlling adherence to rules (Rosing et al., 2011).

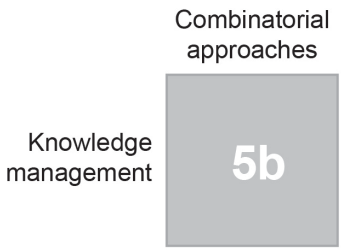
According to a director in subchapter 6.1.6, employees expect the management to create a good culture in Making Waves. Data from subchapter 6.2 leads us to believe that the management have been successful in doing so. The way we see it, the sharing-culture that is described in subchapter 6.2 is essential for knowledge sharing in Making Waves, and it seems that the employees feel comfortable asking others for help. Still, most employees seem aware of the fact that when they ask others for their time, billable hours are lost, as explained in subchapter 6.2.3. We think that the fact that the employees are aware of the trade-off between helping each other and the company's profitability is a sign that the management team uses both opening and closing behaviours. Employees are encouraged to experiment, and they are allowed to make mistakes, which are both examples of opening behaviour. At the same time, a director acknowledges in subchapter 6.2.3 that employees sometimes need to be reminded that they are working within a time frame. This is an example of the management monitoring and taking corrective action, both examples of closing behaviours.

Findings related to proposition 1a
Overall, we find support of proposition 1a: *A value shop deliberately combines both tacit and explicit knowledge to achieve exploitation* within management approaches to ambidexterity. Our findings are summarized below:

- Risk taking – Updating and expanding Wavemaker.
- Adaptability - Establishing new departments and positions.
- Opening and closing behaviours - Creating a culture of sharing with employees that are aware of the trade off between taking time off to help others and working on their own projects.

7.4.4 Combinatorial approaches

In this subchapter, we will discuss proposition 5b: *To solve the paradox of personal drivers, the value shop must use elements from knowledge management*.



We have already explained that Making Waves use both architectural, contextual, and management approaches to achieve exploitation, and we can therefore say that they use a combination of architectural and contextual approaches, which, as we explained in subchapter 3.5.3, contains various nested paradoxes of architectural and contextual approaches (Andriopoulos and Lewis, 2009). We choose not to elaborate further on proposition 1a in this subchapter, but instead discuss proposition 5b.

In order to be able innovate, a person must be passionate enough about his or her work to come up with new ideas of how something can be done better. At the same time, the person must be disciplined enough to follow through on the necessary steps that must be taken to bring the idea into life. Subchapter 3.5.3 describes the need for both passion and discipline as a paradox of personal drivers, nested under the overarching paradox of ambidexterity (Andriopoulos and Lewis, 2009).

According to Andriopoulos and Lewis (2009) there are architectural and contextual approaches that can be used to solve the paradox of personal drivers, and they must be used in combination. The architectural approach is to temporarily and structurally separate work modes. The contextual approach involves socializing “practical artists”. We interpret a practical artist as a person that is a highly skilled and creative, but that at the same time understands that a part of his or her job is to perform mundane tasks. Evidence that this may be relevant and necessary at Making Waves can be found in subchapter 6.2.3, where a member of top management acknowledges that employees sometimes need to be reminded that they have a schedule to uphold, and that they cannot spend endless hours perfecting their work. The empirical findings from subchapter 6.2 provide us with examples of Making Waves using both approaches.

Social artists

In subchapter 6.2.6, informants explained to us that they are allowed to spend a certain amount of their time learning new things by reading books, or by attending courses or seminars. Allowing employees to spend time on self-improvement is one way of socializing a “practical artist”, since the employee is allowed to delve into the field of knowledge that interests him or her most. Since Making Waves has a billing between 70 % and 80 % of the employees’ hours to projects, we find it pretty obvious

that the company values the desire their employees have to learn about things that interest them. Having said that, we also believe that employees can learn many new and exciting things through the projects that they work on. As described in the first paragraph of subchapter 6.2.4, managers consider each employee's personal wishes and goals. We believe that by giving the employees a say in the decision about which projects they are to be placed on, will result in them being more motivated for the job. Being able to influence what you will be working on lets you prioritize the projects that you think are the most exciting.

Our empirical data provided us with many other examples of how the top management valued the employees' opinions about not only projects, but also on internal strategies, such as if they should introduce a performance management system, or where they wanted to establish a new office. From the accumulated quotes in subchapter 6.2, we have gotten the impression that all employees in Making Waves see themselves as creative and innovative people. In subchapter 6.2.4, a technology manager expresses his department's need to innovate.

The general impression we got from the interviews, the company's website and Making Waves' offices, was that Making Waves as a whole is a creative company. As one informant said, "Creativity is not a department" (subchapter 6.1.2). We think that the creative company profile may influence the way the employees see themselves. It is quite common to identify oneself with the place you work, just in the same way one would identify with the place a person lives, or where he has gone to college. Being able to identify with a creative company may influence employees to see themselves as practical artists.

Work modes

There are examples of both temporarily and structurally separating work modes in Making Waves. Still, there are a lot more examples of temporal than structural separation, and it seems that structurally separating work modes is not something that Making Waves strives to achieve. We are given the impression that since most work is performed in project groups with members from the different business units, there is little reason to separate work modes. A technologist explains that he prefers working with the other people in his group, because a project group functions much better if the members are not separated (subchapter 6.2.5). This principle is enforced when projects are carried through with employees from both the Polish and Norwegian offices, as they sit together in the first part of the project.

In subchapter 6.2.3, we found that the project managers are the ones responsible for group members staying within their time limit in projects. This was repeated in several other interviews, and leads us to believe that project managers deal with the paradox of exploration and exploitation on a daily basis, and to a greater degree than most other employees, except perhaps other managers. Projects start out with a explorative phase, and after the concept has been chosen, the concept must be designed and built as efficiently as possible. In subchapter 2.2.1, we explained that the project manager must decide how much time should be spent on the different phases, and how much slack he or she should allow the group members, as slack is used to give room for the innovation process (Herold et al., 2006). We think that

slack in the context of a project usually takes the form of extra project hours that are used to generate new ideas for the customers. In the organizational context, slack can be the extra resources that are used for exploring a new market, or creating a better knowledge management system.

The fact that more and more projects are carried through with an Agile methodology complicates the project-managers' task of upholding the time budget in projects, as described in subchapter 6.1.2. We believe that as a project goes through more frequent iterations, the boundaries between explorative and exploitative become blurrier. In our view this makes the project managers task of temporarily separating work modes even more complex.

Findings related to proposition 5b

We found much support for proposition 5b: *To solve the paradox of personal drivers, the value shop must use elements from knowledge management*. We have summarized our findings in Table 7.8.

Table 7.8 The paradox of personal drivers.

Socializing practical artists	**Temporarily and structurally separating work modes**
● Time set aside for improving skills. ● Invoicing per cent less than 80. ● New employees intern on projects. ● Allowing employees to influence decisions about their own workday, as well as the company in general. ● Creative profile in MW leads to a feeling that "everyone is creative".	● Less structural than temporal separation. ● Employees are divided into business units, but mostly work in project teams. ● Project manager are in charge of temporally separating work modes. ● Agile methodology complicates temporal separation.

7.5 Strategic orientation

Strategic orientation is the third of the three core empirical categories that emerged from our analysis of the interview data. In this subchapter, we will discuss all the main four approaches to internal ambidexterity in light of the strategic orientation of Making Waves. We will discuss proposition 2, 3a and 3b, as highlighted in Figure 7.6. The propositions will be discussed in the respective section they cover, as presented in Figure 7.6.

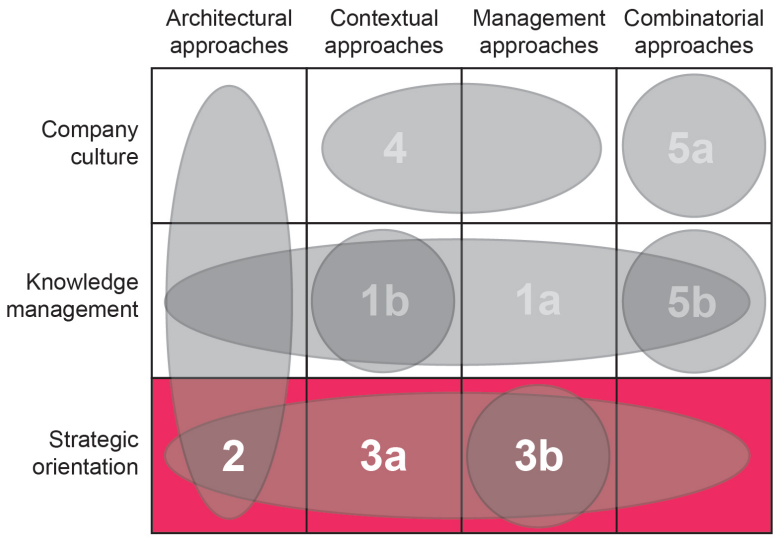
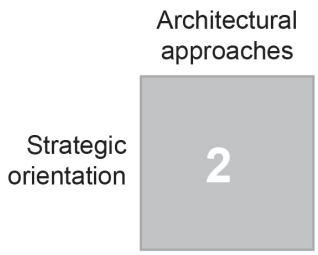


Figure 7.6 Strategic orientation and the propositions.

7.5.1 Architectural approaches

In this subchapter, we will discuss proposition 2: *An increased number of employees requires a value shop to adopt a more rigid structure, which causes an increased emphasis on architectural approaches* and proposition 3a: *Value shops achieve ambidexterity through their relationships with new and existing customers*.



We will first discuss how proposition 2 relates to the topic of strategic orientation in Making Waves, but since proposition 2 concerns itself with all three empirical categories, it will be summed up in subchapter 8.3. As explained in subchapter 7.3.1, we intend to find out if company growth leads to more company structure, and if architectural approaches to ambidexterity become more relevant with increased structure. In this subchapter, we will discuss how proposition 2 relates to the topic of strategic orientation in Making Waves. We expect that growing ambidextrous organizations have an increased emphasis on elements of the architectural approaches.

Formalization

Subchapter 3.5.1 states that formalizing is about making rules, procedures, job instructions and communications formal by writing them down or keeping them in records (Mom et al., 2007, Duncan, 1976). When becoming a larger, more mature and more successful company with more customer requests, Making Waves have gone from accepting almost every customer inquiry within reason, to be able to choose projects more deliberately. Making Waves therefore choose customers that help promote the Making Waves brand, and they have adopted a more formalized strategic orientation, reflected in their positioning statement: *having big international brands come knock on their door* (subchapter 6.3.5). Evidence of formalization can be identified in statements made by both the Director of Sales and the Director of People and Processes, when they talk about choosing customers based on size and

the customers' actual needs. They ask themselves if the customers are big enough, and explain that the customers must have over 250 MNOK in revenue to be interesting. They also evaluate if an extensive digital presence is important, if the customers have a long-term plan for their digital products. These two questions help the sales department and top management in Making Waves decide which customers they wish to have in their portfolio.

Connectedness

Subchapter 3.5.1 states that connectedness is the act of connecting unrelated parts of the organization together through a structure that encourages informal communication and knowledge sharing (Jansen et al., 2006), and that connectedness must be combined with formalization (Chang and Hughes, 2012). Formalization regarding choice of customers could be just an effect of the growth the company has seen lately. To argue for the use of architectural approaches, we must therefore find examples of connectedness. The most evident example of connectedness is the implementation of engagement directors. When hired, they will work with tying together knowledge from different market domains across the whole organization (subchapter 6.2.5). This will result in a more effective exploitation of domain knowledge, and simultaneously help smaller groups of employees explore certain market domains more in-depth. This gives the impression that knowledge sharing will not be facilitated strictly through formal channels, but also by putting people in touch with each other, supporting the principles of connectedness.

Spatial separation

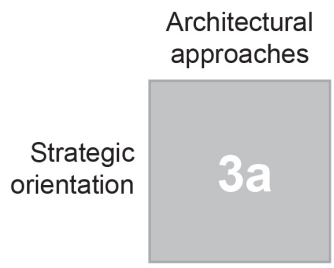
Subchapter 3.5.1 states that spatial separation is the act of separating different business units on the basis of whether they do explorative and exploitative activities (Raisch and Birkinshaw, 2008). Making Waves used to be a small company with employees that viewed themselves as a family, but this is difficult now that they are approaching 300 employees. Several of our informants point to international expansion as the solution for further growth, thus creating separate working spheres, instead of increasing the size of the Norwegian offices indefinitely (subchapter 6.3.5).

One of Making Waves' reasons for establishing an office in New York is to be able to create future value and profits by being present in several markets (subchapter 6.3.5). The creation of a new office is an architectural approach to ambidexterity and long-term survival. The office is not yet established and there is no clear vision of its structure, but we would classify it as a spatial separation based on geography. Making Waves are exploiting their knowledge about EpiServer technology by piggy-backing on them into a new market (subchapter 6.3.5), but they are also being explorative when choosing New York based on the basis what will be most fun for the employees.

Findings related to proposition 2

We generally find support for proposition 2 within the topic of strategic orientation, and the most relevant indicators are listed below:

- Increased formalization in the selection of customers and projects.
- Increased connectedness through the implementation of engagement directors.
- Spatial separation through the establishment of new offices in different markets.



We will now continue with a discussion of proposition 3a: *Value shops achieve ambidexterity through their relationships with new and existing customers*. This proposition will be discussed in all subchapters of subchapter 7.5, and we will summarize the findings at the end of every subchapter where proposition 3a is covered. We will present a complete overview of proposition 3a in subchapter 8.4.

Close customer relations

As explained in subchapter 1.4.3, a company with a value shop configuration does not create value by transforming resources into products with a certain efficiently or quality (Stabell and Fjeldstad, 1998). Instead, the value shop reviews and formulates a problem to be solved in close collaboration with its customers, before proceeding to solve the specific problem (Stabell and Fjeldstad, 1998). To achieve ambidexterity through a customer relationship, we believe that some architectural approaches to ambidexterity have to be present. This is related to Making Waves and their customers, but also to how they establish bonds with new customers, and how they maintain relationships with existing customers.

It is safe to assume that every new client represents exploration to some degree, and that all new customers eventually become existing customers. The time and effort spent on maintaining a relationship with these customers is in part an exploitative process. When you have known customers for a long time, it is likely that you will deliver what they want more efficiently, making it possible for both parties to benefit from long customer relations. The act of balancing one's portfolio with new and old customers could, for a value shop, be seen as being ambidextrous. This means letting some customers go when they are not worth the trouble, and obtaining new ones in, when capacity allows it. We have identified three indicators of architectural approaches to ambidexterity that are particularly closely connected to customer relations: formalization, connectedness, and task partitioning.

Formalization

Subchapter 3.5.1 states that formalizing is about formalizing rules, procedures, job instructions and communications, writing them down or keeping them in records (Mom et al., 2007). In addition to keeping a balanced portfolio of new, existing, small and large customers, Making Waves has a symbolic motto, which is a way of formalizing the way they go about diversifying their portfolio between explorative and exploitative projects. Their basic guideline is that all projects should deliver fun, fame, and fortune. By fun they means that projects should be rewarding for the employees to work with. Fame means that the projects should provide recognition in the marketplace, or be for a very well known brand or customer. Fortune means that the

projects should be profitable. This is not a strict rule, and is managed by best judgement, which will be further discussed in subchapter 7.5.2 (concerning contextual approaches). But even though fun, fame, and fortune is not a strict rule, it has been put more to use now as the company can be picky in choosing which customers to work with, thus increasing formalization.

Connectedness

Subchapter 3.5.1 states that connectedness is the act of connecting unrelated parts of the organization together through a structure that encourages informal communication and knowledge sharing (Jansen et al., 2006). The formalization of processes has become more present as the company has grown, but as explained in subchapter 3.5.1, formalization must be combined with connectedness to safely claim that there is an increased emphasis on architectural approaches (Chang and Hughes, 2012). In this light, the newly established PM-Office (PMO) can be viewed as both formalization and an effort for increased connectedness (subchapter 6.2.5). Formalization is achieved merely through its establishment, and the connectedness through its mission, creating a better flow from new customer to project start-up. The two-person PMO needs to create informal contact between many stakeholders, both internally and in integrating customers with projects. As PMO describe it themselves, they are there to create a *better handshake* between the sales activities and the actual project work (subchapter 6.2.5). A lot of information is lost when transferring a contract from Sales to project managers, and from when the project is finished to when it is delivered. Some of these issues can be handled by formalizing the transfer process, but just as important is the personal contact, the understanding of all the stakeholders and the management of the transfer process itself.

Task partitioning

The last architectural approach we would like to present, is task partitioning, which we view to by a type of spatial separation. As explained in subchapter 3.5.1, task partitioning has to do with when people within a single business unit work with different tasks, either explorative or exploitative (Gibson and Birkinshaw, 2004, McDonough and Leifer, 1983).

This discussion concerns the connection between the sales office and the engagement directors, but since the engagement directors are not implemented while writing this thesis, we don't know exactly where in the organizational structure they will be placed. We will place them in the same business unit as sales, where we believe they will end up. Placing the sales staff and the engagement officers in the same unit looks a lot like task partitioning, because they do different types of work. Sales staff employees create new leads and customers, as they keep track of tenders and offers and streamline the sales process. The role of the engagement directors is to facilitate collaboration with the customer, helping them to understand their own needs, and explore the possible solutions (subchapter 6.2.5). Both the sales staff and the engagement directors will have employees responsible for specific sectors of business, persons that will perform different tasks both in acquiring new business and nurturing the acquaintance of existing customers.

Findings related to proposition 3a

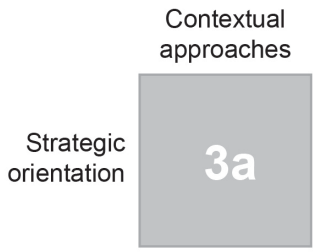
We found several indicators that support proposition 3a: *Value shops achieve ambidexterity through their relationships with new and existing customers*. The indications are summarized in Table 7.9 below.

Table 7.9 Architectural approaches regarding proposition 3a.

Architectural approaches	
New customers	**Existing customers**
• Explore with new customers. • Formalizing the process of obtaining new customers by applying specific criteria. • Both individuals in sales and the engagement directors work with acquiring new customers within the same market domain, but operate different activities.	• Exploit with existing customers. • Increased connectedness by PMO acting as a hub for informal communication between all stakeholders in projects. • Both individuals in sales and the engagement directors works with nurturing the relationship with existing customers within the same market domain, but operate different activities.

7.5.2 Contextual approaches

In this subchapter, we will discuss proposition 3a: *Value shops achieve ambidexterity through their relationships with new and existing customers*.



As we explained in subchapter 3.5.2, contextual approaches are techniques used to empowering employees to make conscious choices in balancing explorative and exploitative activities, both on behalf of themselves and the company (Gibson and Birkinshaw, 2004). By applying cultural and symbolic procedures and processes, managers enable employees to better deal with the paradox of exploration and exploitation.

Contextual approaches often combine tight and loose elements to create ambidexterity (Gibson and Birkinshaw, 2004). Discipline and stretch act as elements that restrict the mind-set of employees by providing clear standards and a collective identity, while support and trust loosens up the mind-set by fostering initiatives and including the employees in decision-making processes.

In the domain of strategic orientation and achieving ambidexterity through relationships with new and existing customers, the contextual approaches should, from the theoretical point of view discussed in subchapter 3.5.2, manifest themselves as a combination of:

- Clear and commonly shared goals when choosing customers and future strategies.
- A strong connection between company norms and customer selection
- Strong personal initiatives in creating and sustaining relationships with customers.

- Strong sense of being included in decisions about the composition of the project portfolio.

Fun, fame, and fortune
The most prominent example of shared goals and a strong connection in Making Waves is the customer selection slogan Fun, Fame, and Fortune. This slogan is a symbol used to build company culture, and in our opinion it can probably be quite powerful if used correctly. We experienced that employees used the slogan as a guiding star for customer selection (subchapter 6.3.1). It seemed to us the reason Making Waves worked with fun, famous, and profitable was so that they themselves would become a fun, famous and profitable company, in the eyes of the employees. But there was also an understanding that employees did not have to follow this slogan religiously. This relates mostly to the *fortune* part of the slogan. New customers are rarely very profitable, but new customers sooner or later become existing customers, which can be profitable.

None of our informants were critical to the Fun, Fame, and Fortune slogan and related mind-set. Another strategy that seemed to be generally supported was the plans for international expansion (subchapter 6.3.5), which the way we see it is linked to the Fun, Fame, and Fortune-philosophy. Management claimed they had not made the choice to select New York based on calculations or analysis, but that it was mainly a gut decision in line with the slogan (subchapter 6.3.1).

Overselling
The issue of overselling serves as a good illustration of personal initiative in creating and sustaining relationships with customers (subchapter 6.3.3). The sales department manages sales, and the issue of overselling shows trust between all internal stakeholders, since the other departments continue to cooperate with Sales, despite the overselling issue. Making Waves sometimes bid and sell projects at too low of a price, which causes an occasional internal dispute, but there also seems to be a tacit agreement that one must oversell to be able to get the fun and famous projects.

Overselling is also linked to the personality and personal initiative of the director of Sales, who describes himself as an entrepreneurial type. There is substantial amount of trust present from the rest of the organization in the director of Sales and his department, which is reciprocated by involving more than just top management in choosing which projects to pursue.

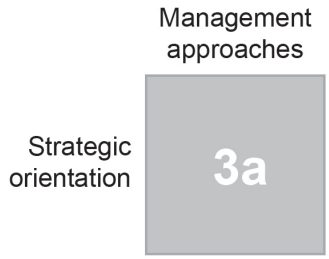
Findings related to proposition 3a
We have found several indicators of that Making Waves uses contextual approaches in relations with proposition 3a: Value shops achieve ambidexterity through their relationships with new and existing customers. The indicators are summarized in Table 7.10 below.

Table 7.10 Findings on proposition 3a.

Contextual approaches	
New customers	**Existing customers**
• Common understanding and participation in choosing leads to pursue. • Trust to oversell fun and famous projects.	• Unprofitable new customers (fun and fame) are transformed into profitable existing customers (fortune). • High amount of trust in making this transformation is possible.

7.5.3 Management approaches

In this subchapter, we will discuss proposition 3a: *Value shops achieve ambidexterity through their relationships with new and existing customers* and proposition 3b: *When selecting which projects to pursue, leaders tend to focus more on exploitation than exploration*.



We will first cover proposition 3a, and discuss whether value shops achieve ambidexterity through their customer relationships in light of the management approaches. Managers are ultimately responsible for every aspect of a company (subchapter 3.3.2), and a fundamental aspect of the management approaches is the ability of managers to tolerate risk (Lumpkin and Dess, 1996), adapt to market trends (Jaworski and Kohli, 1993) and be aware of competitor development (Jaworski and Kohli, 1993).

There is a strong agreement among our informants that Making Waves stands out among their competitors; many informants see their company as almost the opposite of their competitors. They do not want to be viewed as a *me-too*-company, but as *not me*-company, something that is mentioned by several managers, and the CEO specifically in subchapter 6.1.7. It seems this strong sense of the uniqueness and the wish to be different has its origin from the top of the organization. The vision of a creative, competent and friendly place to work is created by, and communicated from management, and it resonates throughout the organization (subchapter 6.1.1). However, Making Waves do not stand out by which customers they choose to work with, but by the services they provide and the way they work, accepting risk.

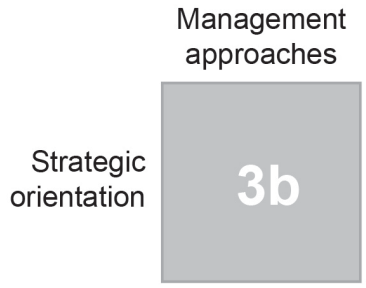
Trying to be different from all their competitors makes it seem as if Making Waves view themselves as the outsider that does everything his own way. The CEO argues against this image by stating that he has a lot of respect for their competitors, and that they try to understand and learn from their competitors' mistakes (subchapter 6.3.4). This shows a significant amount of adaptability and understanding of market trends, in addition to competitor awareness.

Findings related to proposition 3a

We find indicators to support that Making Waves uses contextual approaches related to proposition 3a: *Value shops achieve ambidexterity through their relationships with*

new and existing customers, but our indicators primarily relate to how Making Waves studies its competitors, and not how they interact with customers. A short summary of our insights are presented below:

- Risk - Doing the opposite of competitors.
- Adaptability - Respect for, and learning from mistakes done by competitors.



We will now discuss proposition 3b: *When selecting which projects to pursue, leaders tend to focus more on exploitation than exploration*. Ambidextrous leaders are in theory good at balancing risk and adaptability. Instead of looking for signs of risk tolerance and adaptability in how the management of Making Waves pursue new projects, we decided to prove that Making Waves is led ambidextrously by falsifying proposition 3b. In disproving that the leaders of Making Waves let their exploitative mind set dominate when choosing which opportunities to pursue; we hope to show that they are actually ambidextrous.

We start again with the empirical example of the Fun, Fame, and Fortune slogan. At first glance, the slogan looks like a strategy for ambidexterity, so to prove proposition 3b right we must find empirical evidence that the leaders tend to prefer projects with an emphasis on quick fortune. But in our interviews we found few indicators supporting such a hypothesis. The closest we got to an indicator of a quick fortune-focus was that several of the top managers believed that certain turbulent projects would turn out very profitable in the end, in a 5-10 years perspective (subchapter 6.3.2). But a 5-10 years return on investment by a consultancy company seems like a long-term profit goal, and long-term profitability is, as explained in subchapter 2.2, often an indicator of exploration (O'Reilly and Tushman, 2004).

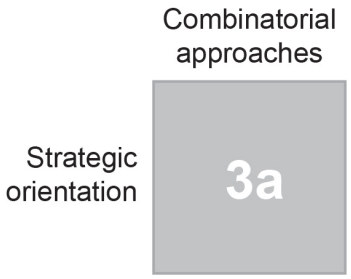
Two major company decisions we showed no evidence of exploitation being the foundation for the decisions. The first is the acquisition of the service design company Zoot. The purpose of the acquisition was not to acquire more customers or contribute to exploiting existing knowledge in Making Waves more efficiently. It was to more systematically explore the combination of analogue and digital services, with a vision of service design evolving to something more profitable in the future. The second example is the strategy of opening shop in New York. Making Waves will not establish themselves there because the market isn't competitive in New York, or simply because they want synergies with EpiServer, but because it is more exciting and explorational for the employees than, for instance, Houston (subchapter 6.3.1).

Findings related to proposition 3b

We find no substantial data to support proposition 3b. Instead, it seems that the CEO and lower management are aware of the need for balancing the explorative and exploitative elements in the overall pursuit of projects and possibilities.

7.5.4 Combinatorial approaches

In this subchapter, we will discuss proposition 3a: *Value shops achieve ambidexterity through their relationships with new and existing customers.*



This subchapter is to some degree a combination of both the architectural and contextual approaches already explained in connection with proposition 3a. But the main additional aspect of the combination of the two different approaches, as we explained in subchapter 3.5.3, is the paradox of strategic intent (Andriopoulos and Lewis, 2009). This nested paradox coincides well with the empirical theme of strategic orientation. It uses the holistic scope of the organization as a whole in stressing the need for both big profits and innovative breakthroughs, while also seeking out projects that leverage current skills and/or projects that create new opportunities. Strategic intent can be further reduced to two topics that can operate as indicators of how a company achieves ambidexterity through their relationship with new and existing customers: Cultivating a paradoxical vision (contextual) in one's employees while at the same time diversifying one's project portfolio (architectural) (Andriopoulos and Lewis, 2009).

The paradoxical aspect of strategic intent within the topic of strategic orientation is again the Fun, Fame, and Fortune slogan. With every project supposed to contain all three elements and every project supposed to be multidisciplinary, the vision of the company seeking projects that are fun, famous and profitable, seems to be rooted in the individuals in the organization, so that they perceive not only Making Waves, but also themselves as creative and efficient individuals that enjoy high regards within their disciplines. This also coincides well with a juxtapositioning of the vision statement, mission statement and positioning statement of the company: Making Waves is a great place to work, that create delightful experiences, and big well-known international brands are lining up to work with them.

The paradoxical vision has to be simultaneously coupled with diversifying the project portfolio. There are two main indicators of Making Waves diversifying their project portfolio, described in chapters 7.5.1 and 7.5.2, the first being the leniency in enforcing the customer selection slogan, the other is the implementation of the engagement directors. Not every project is forced to contain all three elements. Some projects are just inspirational and fun, while others are described as low-hanging fruit - easy and profitable, but boring. The project portfolio is also diversified along the market sector axis by the implementation of the engagement directors.

Findings related to proposition 3a

We found several indicators of Making Waves using combinatorial approaches related to proposition 3a: Value shops achieve ambidexterity through their relationships with new and existing customers. Our findings are summarized in Table 7.11 below.

Table 7.11 Support for proposition 3a.

Paradox of strategic intent	
Cultivating a paradoxical vision	Diversifying project portfolio
• The coherence between the customer selection slogan and the vision-, mission and positioning statement. • How the employees have internalized these paradoxical visions.	• The leniency in enforcing Fun, Fame, and Fortune. • The implementation of the engagement directors.

7.6 Summary of the discussion

In this chapter, we have discussed our propositions within the topics of company culture, knowledge management, and strategic orientation. We have used the four main groups of approaches to ambidexterity - architectural, contextual, combinatorial, and management approaches - as a framework for our discussion.

In the next chapter, we will summarize our findings on each proposition, and we would therefore like to let the propositions be in this summary, and instead summarize the various approaches to ambidexterity we found, without connecting them explicitly to the propositions. By doing this, we intend to provide an overall view of ambidexterity in Making Waves.

As explained in chapter 3, we have created a metaphor for explaining the connection between the four approaches to ambidexterity, where architectural approaches are bricks, and contextual approaches are mortar. Combinatorial approaches are about combining bricks and mortar, and the management approaches represent the builder responsible for creating something meaningful with the bricks and mortar (Figure 7.7).

Architectural approaches

Making Waves uses several architectural approaches to ambidexterity, but not all. We have summarized the most important architectural approaches in the list below:

- Temporal separation - Employees on projects go from an open, explorative phase to a closed, exploitative phase, this has not changed with increased company size, and seems to be the natural way of a value shop.
- Connectedness - High share of informal communication particularly facilitated by the Minister of Culture and the communication platform Yammer. They have hired engagement directors to help connect the various business units better.
- Formalization - Several roles and procedures have been formalized as Making Waves has grown, such as the formal role of Minister of Culture. They have emphasised the importance of their methodology system Wavemaker. They have formalized the process of obtaining new customers by applying specific criteria.

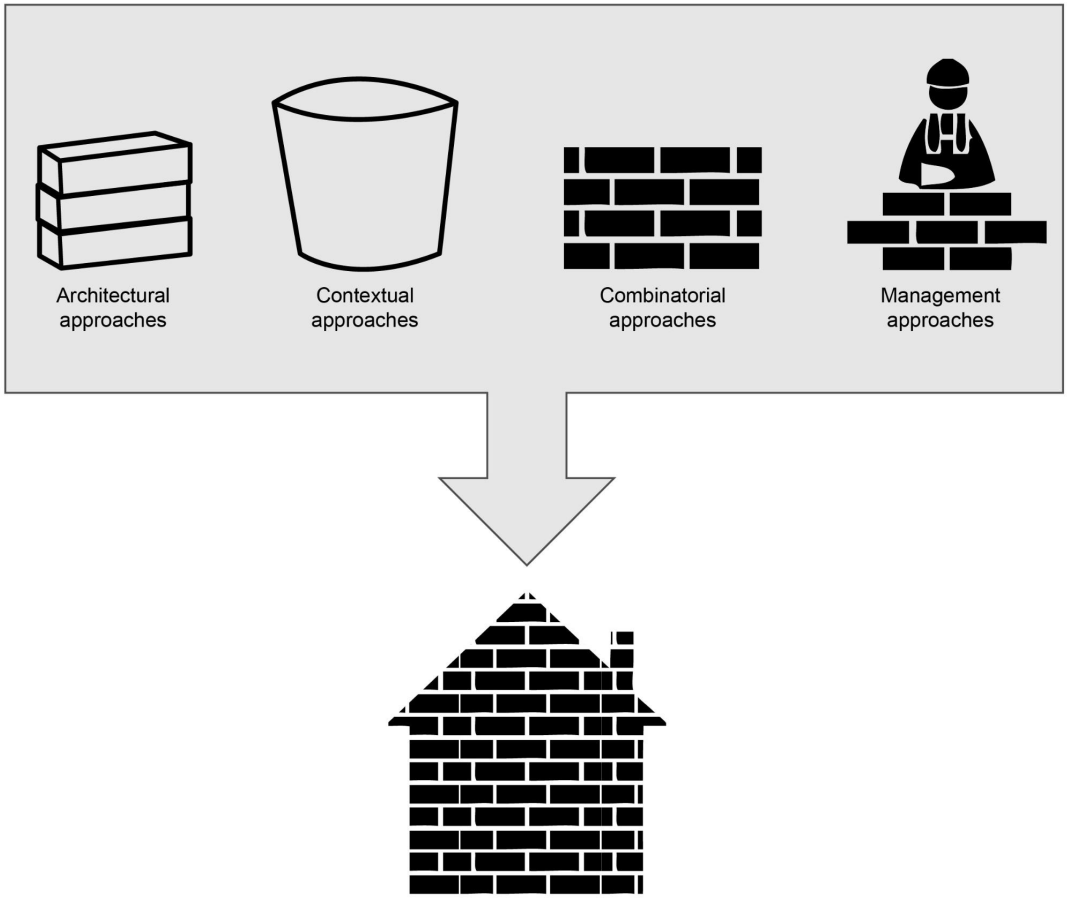


Figure 7.7 Metaphor of the approaches to ambidexterity (from subchapter 3.4.2).

Contextual approaches

Making Waves uses many contextual approaches to ambidexterity. We have summarized the most important contextual approaches in the list below:

- Stretch - The collective bonus system encourages teamwork. Employees are given time to learn, giving them personal meaning.
- Support - Managers help, rather than instruct, their employees. Employees have a culture of dropping what they have in their hands to help others.
- Socialization - Employees are taught Making Waves' vision, mission and norms.
- Team building - Making Waves facilitate many social activities.
- Autonomy - Employees are granted many liberties to make their own decisions.
- Trust - An apparent level of trust in the entire company, partly due to the absence of a performance management system. The managers involve the employees in decisions.

Combinatorial approaches

We have primarily discussed the paradox of personal drivers within combinatorial approaches. But that Making Waves use both architectural and contextual approaches to ambidexterity means that they combine them. We have summarized the most important aspects of the paradox of personal drivers in making Waves in Table 7.12 below:

Table 7.12 Summary of the paradox of personal drivers.

Socializing practical artists	Separating work modes
● An emphasis on mentoring, where experienced employees help others. ● Time set aside for improving skills. ● Inexperienced employees work on projects to learn. ● Employees allowed to influence decisions about their own work.	● Projects have several phases, from explorative to exploitative. ● Less structural than temporal separation. ● Agile methodology complicates temporal separation.

Management approaches

We found quite a lot on management approaches to ambidexterity, and especially concerning the CEO. We have summarized the most important management approaches in the list below:

- Risk taking and risk acceptance - CEO accepts risks and allows employees to make choices.
- Risk taking - Making Waves does the opposite of competitors
- Opening behaviours - CEO accepts that employees can make risky choices themselves.
- Adaptability - Making Waves establish new departments and positions when needed.
- Adaptability - Management respect competitors, and learn from their mistakes.

As already mentioned, we will discuss each proposition individually in chapter 8. We will explain our findings on each proposition, and discuss the implications of our findings.

8 Summary of propositions

In the previous chapter, we discussed our propositions in light of both the four approaches to ambidexterity and the empirical categories that emerged from our analysis. In this chapter, we will summarize the discussion from the previous chapter proposition by proposition. We will present the approaches to ambidexterity that were relevant for each proposition in Making Waves, suggest implications of our findings, and propose new theory. By doing so, we hope to make it clear for the reader how the findings related to the different propositions has helped us in answering our main research question: “How does Making Waves balance exploration and exploitation?”

We will review the propositions in numerical order with a short summary, an evaluation of the findings and a discussion of the potential implications of the findings related to each proposition. When evaluating our propositions we decide if we can support them or not, and our degree of support goes from strong support to no support in three consecutive steps. This means that we conclude that we can strongly support, partially support or not support, each proposition.

8.1 Proposition 1a

A value shop deliberately combines both tacit and explicit knowledge to achieve exploitation.

A summary of all the approaches to ambidexterity (architectural, contextual, combinatorial, and management approaches) related to proposition 1a is listed in Table 8.1 below. As argued in subchapter 7.4, all measures related to tacit and explicit knowledge are also related to refining the existing knowledge that Making Waves possesses.

Table 8.1 Summary of proposition 1a.

<table>
<tr><th colspan="4">Management approaches</th></tr>
<tr><td colspan="4">Risk taking - Choices related to Wavemaker.
Adaptability - Establishing new departments and positions.
Opening and closing behaviours - Creating a culture of sharing with employees that are aware of the trade-off between taking time off to help others and working on their own projects.</td></tr>
<tr><th colspan="4">Combining the two</th></tr>
<tr><th colspan="2">Architectural</th><th colspan="2">Contextual</th></tr>
<tr><th>Tacit</th><th>Explicit</th><th>Tacit</th><th>Explicit</th></tr>
<tr><td>Employees working together in projects or in their department.
Establishing a PMO department.
Establishing an engagement director position.</td><td>Confluence (wiki).
Jira (Project management software).
Yammer (Social media platform).</td><td>Sharing culture.
Hybrid profiles.
Apprenticing in projects.</td><td>Making tacit knowledge explicit through systems and seminars.
Vision, mission and design thinking explicitly memorized.</td></tr>
</table>

8.1.1 Evaluation of proposition

We found examples in our empirical data of architectural approaches related to both tacit and explicit knowledge, and we learned that it is difficult to spread knowledge through systems. The management of Making Waves therefore combines both architectural and contextual approaches, which seems to increase the overall knowledge sharing and knowledge acquisition. Creating a business context that allows for sharing of both tacit and explicit knowledge through structures and strategies seems to be a difficult task, but one that Making Waves seems capable of. We therefore find strong support for proposition 1a.

8.1.2 Implications

Table 8.1 shows that we can support proposition 1a with several examples of architectural, contextual, combinatorial and management approaches. These approaches coincide with the approaches that should lead to exploitation according to theory from subchapter 3.5.

Our findings seem to support the theories by Chang and Hughes (2012) from subchapter 3.5.1, that has to do with company connectedness. Connectedness turns out to be an important approach to ambidexterity in Making Waves, and is facilitated by informal and formal knowledge sharing. Chang and Hughes' (2012) study was conducted on 1 000 SMEs in Scotland, and some of these companies may have a business environment similar to Making Waves' here in Norway. Knowledge sharing may not be as relevant in value shops in other countries, but it seems logical that all knowledge-based value shops should prioritize knowledge sharing in some form, regardless of their countries of origin.

In subchapter 3.5.1, we explained that Jansen et al. (2006) claimed that increased knowledge sharing can lead to exploitative innovation, since employees across the organization understand technologies better. We find no indications that knowledge sharing in Making Waves leads to exploitation, specifically. Knowledge sharing seems to be a foundation for both exploration and exploitation, being an essential part of driving forth any type of innovation. It is reasonable to suggest that being knowledgeable about the technology makes it easier to improve it, but it seems equally logical to us that a better understanding of technology provides a person with more tools to succeed in exploration as well.

Exploitation has to do with getting better at what you already know how to do, and one would expect that both tacit and explicit knowledge would be involved in the process. Still, in order to find out if tacit and explicit knowledge is used to achieve ambidexterity one must first find evidence to support that tacit and explicit knowledge is used to achieve exploration. We believe that this could be an interesting topic for future ambidexterity research.

We also find the question of whether knowledge-sharing systems work better by implementing social features interesting. Is a wiki system, such as Confluence, where information is filed and stored, most efficient for knowledge sharing, or would a system with a more social aspect, such as Yammer, work better? We think that the rise of social media has changed the way people share knowledge via systems, and

that it would be interesting to explore if social systems are more efficient than filing system for knowledge sharing. This is also something we recommend for further research.

It became evident that the employees use the knowledge sharing systems to a varying degree, and that some hardly use them at all, unless specifically asked to. By using proper contextual approaches, Making Waves might be able to make employees get involved in the systems for knowledge sharing, a goal that seems useful for the entire organization. We therefore believe that a study of how one can integrate formal, seemingly architectural approaches of computer systems for knowledge sharing with softer, contextual approaches would be interesting.

8.2 Proposition 1b

Value shops must use contextual approaches to refine existing knowledge and acquire new knowledge.

We created a table in subchapter 7.4.2 where we placed examples of contextual approaches within a theoretical model. The table (Table 8.2) is shown below.

Table 8.2 Contextual approaches to knowledge management.

Performance management	**Social context**
	Stretch ● Employees have time to learn new things ● Collective identity Support ● Culture of sharing ● Development of hybrid profiles Trust ● Hiring new people ● Employees motivation and wishes important Socialization and team-building ● Acquiring and integrating new firms

8.2.1 Evaluation of proposition

The table we used was developed based on theory presented by Gibson and Birkinshaw (2004), who are well renowned scholars within the field of ambidexterity. We created the indicators of performance management and social context ourselves based on several articles. But regardless of whether our indicators were spot-on, the relationship between the contextual approaches of performance management and social context is clear. And as Table 8.2 shows, we found no indicators of performance management being exercised in Making Waves. In fact, we learned that Making Waves had abandoned their failed performance system a couple of years ago. We therefore cannot support proposition 1b in its current form, as we only found partial support for it, and no indicators on the performance management side of Table 8.2.

8.2.2 Implications

By not finding indicators of performance management, our empirical findings do not align with the theories by Gibson and Birkinshaw (2004), which means that we either found wrong results, that the their theories are wrong, or that their theories are not applicable in our case. We believe that the most likely explanation is that their theories are not fully applicable to Making Waves. Gibson and Birkinshaw's (2004) study was conducted in manufacturing companies, and we believe that performance management might not be as relevant in a knowledge-intensive value shop. Employees in a knowledge-intensive value shop are highly educated, and given autonomy and responsibilities, and are probably not be as receptive to performance management as, for instance, factory workers at production line. In addition, the research was conducted in South Korea, The USA, France, Japan, India, and Canada, and we suspect that performance management might not be as relevant in Norway, where we have a tradition of flat company hierarchy.

Since we couldn't find evidence of Making Waves using performance management, we have revised proposition 1b to a form that we would have liked to research if we had the necessary time and resources. To further consider the actual importance of performance management, our revised proposition 1b is as follows: "Performance management is less important than social context when value shops use contextual approaches to achieve ambidexterity by refining existing knowledge and acquiring new knowledge."

The new proposition has to be tested with similar case studies, and in similar companies, to determine its strength. If the proposition is not disproved, it seems reasonable to assume that value shops focus on creating a social context when striving to refine existing and acquire new knowledge through contextual approaches, but without the use of performance management. It would also be interesting to do the same research in foreign companies to see if there are national differences concerning performance management.

8.3 Proposition 2

An increased number of employees require a value shop to adopt a more rigid structure, which causes an increased emphasis on architectural approaches.

Proposition 2 concerns all three core empirical categories of company culture, knowledge management, and strategic orientation. We have created a short summary of the findings from each category in Table 8.3 below:

Table 8.3 Architectural approaches and knowledge management.

Company culture	Knowledge management	Strategic orientation
• Increased spatial separation by employees having only one role, some departments dealing mainly with exploration, and some mainly with exploitation. • Increased connectedness by explicitly saying that everyone can speak to anyone, and by implementing computer systems, like Yammer. • Increased formalization by appointing an official minister of culture, who had previously fulfilled the position by her own initiative.	• Increased formalization and connectedness by updating methodology system • Structural separation is the cause for discussing merging departments. • Increased connectedness by introducing new layers of management in the form of the PMO office. • Increased connectedness due to the new engagement director position.	• Increased formalization in selection of customers and projects. • Increased connectedness through implementation of engagement directors. • Spatial separation through establishment of new offices in different markets.

8.3.1 Evaluation of proposition

From Table 8.3, we can see that there are several examples of how growth correlates positively with architectural approaches. It seems as if more structure is a natural result of a company with a growing amount of employees, and that architectural approaches are initiated to make sure that such a company continues to be innovative, and especially innovative in an explorative way. Overall, we find strong support for proposition 2, because of the fact that Making Waves has adopted several architectural approaches as they have grown, and because all informants seemed to agree that they had to do so, indicating a natural connection between structure and architectural approaches to ambidexterity.

8.3.2 Implications

Proposition 2 is the only proposition we have discussed within all the three categories from the empirical data; company culture, knowledge management, and strategic orientation, and only within architectural approaches to ambidexterity. We identified several indicators of architectural approaches in Making Waves, but we did not find examples of all the indicators that we expected from subchapter 3.5.1, summarized in Figure 8.1 below. We found several examples of connectedness and formalization, and few examples of task partitioning. Temporal separation seems to be an inherent property of working with projects.

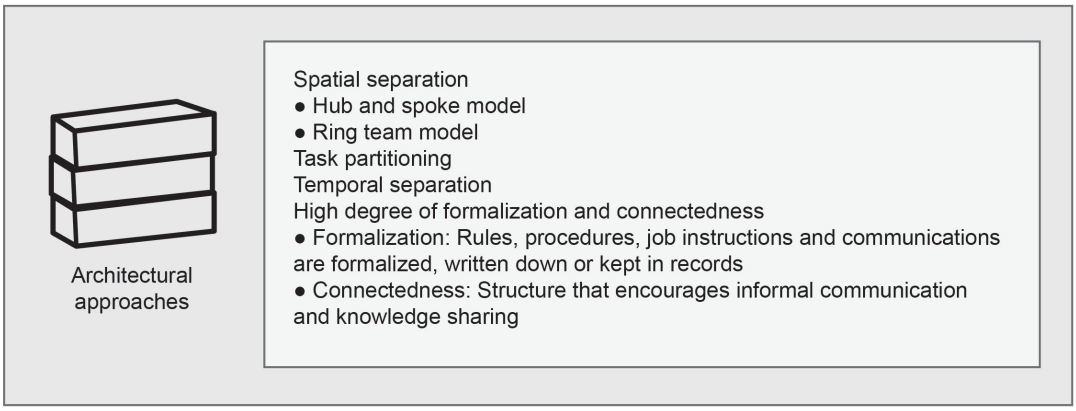


Figure 8.1 Overview of architectural approaches (from subchapter 3.5.1).

In subchapter 3.5.1, we explained that spatial separation is supported by, among, others Raisch and Birkinshaw (2008) and Tushman and O'Reilly (1996). Raisch and Birkinshaw's (2008) study is a collection of other studies on ambidexterity, where the primary empirical data has been collected from manufacturing companies. It may be that spatial separation is not as relevant for a value shop such as Making Waves, where they have strong temporal separation by default, due to their project-based work.

The concept of task partitioning is also founded in manufacturing companies through a study by Gibson and Birkinshaw (2004), which we explained in subchapter 3.5.1. Making people within one department work with either exploration or exploitation is not particularly relevant for Making Waves, since people within the business units mostly work on projects. People within one business unit may work on either an exploration project or an exploitation project, but that is not defined by the business unit structure, but by the project they are working on. The employees working on exploitation projects at one time may work on exploration projects the next time, meaning that they are not confined to work with one type of activity within their business unit. It seems likely that this will be the case for other project-based value shops as well.

Our single-case study has provided us with data on only one company, and within a relatively short period of time, and our data is based solely on interview data. To strengthen proposition 2 further, we would have to conduct a longitudinal study to see how Making Waves and other companies react to growth over time.

We have only worked on determining whether growth and structure leads to more architectural approaches to ambidexterity, but a topic for further research could be whether growth also leads to more contextual approaches. Several informants told us that they felt like Making Waves had managed to maintain their culture, despite the rapid growth, which may indicate that Making Waves have embraced contextual approaches as well. For all we know, growth could lead to a more conscious relationship to ambidexterity in general, making companies devote resources to both architectural and contextual approaches.

8.4 Proposition 3a

Value shops achieve ambidexterity through their relationships with new and existing customers.

This proposition concerns all of the four different approaches for achieving ambidexterity within strategic positioning. It does not deal with how to achieve ambidexterity in an external network of new and existing customers, but how the relationships with new and existing customers affect the internal activities in the approach to achieving ambidexterity. Our findings are summarized in Table 8.4 below.

Table 8.4 Findings on proposition 3a.

<table>
<tr><th colspan="4">Proposition 3a</th></tr>
<tr><th colspan="4">Leadership approaches</th></tr>
<tr><td colspan="4">Doing the opposite of competitors – Risk
Respect for, and learning from mistakes done by competitors - Adaptability</td></tr>
<tr><th colspan="4">Combining the two – the nested paradox of strategic intent</th></tr>
<tr><th colspan="2">Cultivating paradoxical vision</th><th colspan="2">Diversifying project portfolio</th></tr>
<tr><td colspan="2">The coherence between the customer selection slogan and the vision-, mission and positioning statement
How these paradoxical visions has been internalized by the employees</td><td colspan="2">The leniency in enforcing fun, fame and fortune
The implementation of the engagement directors</td></tr>
<tr><th colspan="2">Architectural approaches</th><th colspan="2">Contextual approaches</th></tr>
<tr><th>New customers</th><th>Existing customers</th><th>New customers</th><th>Existing customers</th></tr>
<tr><td>Explore with new customers
Formalizing the process of obtaining new customers by applying specific criteria
Individuals in both sales and the engagement directors works with acquiring new customers within the same market domain, but operate different activities</td><td>Exploit with existing customers
Increased connectedness by PMO acting as a hub for informal communication between all stakeholders in projects
Individuals in both sales and the engagement directors works with nurturing the relationship with existing customers within the same market domain, but operate different activities</td><td>Common understanding and participation in choosing leads to pursue
Trust to oversell fun and famous projects</td><td>Unprofitable new customers (fun and fame) are transformed to profitable existing customers (fortune)
High amount of trust that this transformation is possible</td></tr>
</table>

8.4.1 Evaluation of proposition

We have found several examples of Making Waves achieving ambidexterity through their customer relations. We believe that the combinatorial approaches of cultivating the paradoxical vision of fun, fame, and fortune, and by strategically diversifying their customer portfolio are particularly important. We find strong support for proposition 3a.

8.4.2 Implications

Through our discussion of proposition 3a, we found that it is difficult to determine what can be classified as internal and external approaches to ambidexterity, since the customers are directly involved in projects, and thus become part of the organization for some time. Santos and Eisenhardt's (2005) study from subchapter 3.5 is quite strict in its determination to define organizational boundaries. It does not seem possible to properly define Making Waves' organizational boundaries as constant, but that they change all the time, depending on what Making Waves are working on. We believe this to be the case of all consultancy companies that do projects for customers, and that one should consider their organizational boundaries in another way than, for instance, in manufacturing companies.

Rosenkopf and Nerkar (2001) claimed that companies had a tendency to look inwards to find solutions to the challenges they encounter, by using the knowledge that already exists in the organization. We have no data indicating that Making Waves employees tend to look inwards for internal knowledge to find solutions to challenges. Managers ask their employees to solve problems, and they do internal projects themselves, such as creating the various computer systems. But it does not seem that management dictates the way an employee should solve the problem he or she has been given. Our impression is that individual employees seek information both within Making Waves and from outside sources. We would have had to conduct another study to determine the actual ratio of internal and external knowledge that employees use to solve problems, but would not expect to find great differences.

As we described in subchapter 1.2.1, separating product innovation and process innovation in service companies is difficult, as the process of delivering the product is part of the product itself. We believe this to be especially relevant for value shops, since they work closely with their customers, often on a daily basis, thus involving the customer directly in the entire process of creating the product. Involving the customer, who is an external company, blurs the border between internal and external approaches to ambidexterity significantly. It therefore seems logical that a value shop that is incapable of using customers to achieve ambidexterity would not be able to be ambidextrous at all. An interesting topic for further research would be to determine how external and internal approaches merge into one, and how important external companies are in achieving ambidexterity. External companies might not only involve customers, but also vendors, and it would be interesting to determine where the borders between internal and external approaches are. Removing the line between internal and external approaches to ambidexterity seems connected to the principle of open innovation that we described in subchapter 1.2.2, and it would be quite interesting to evaluate how those two areas relate to each other.

8.5 Proposition 3b

When selecting which projects to pursue, leaders tend to focus more on exploitation than exploration.

The management in Making Waves is involved in making strategies for project selection, the daily management of project selection, and the daily running of projects. In interviews, informants with management positions explained that they choose projects based on many different criteria. Sometimes, they do projects for the sake of learning new technologies or to get a foot in a new segment. Other times they do projects that are similar to previous projects to make easy money, even though this is not very desirable.

8.5.1 Evaluation of proposition

Before conducting the interviews, we suspected that the managers were cautious about exploration. In our minds, a failed exploration project might look very bad to the customer, since it would seem like Making Waves didn't know what they were doing. We therefore thought that managers feared the failure of an explorative project. They might not just lose money, but also lose future business. However, we found no evidence that management or the CEO focuses more on exploitation than exploration. On the contrary, many of the managers emphasized that they try to do new, unfamiliar projects as often as they can. Overall, management does not seem to prioritize exploitation over exploration, and we find no support for proposition 3b: *When selecting which projects to pursue, leaders tend to focus more on exploitation than exploration*.

8.5.2 Implications

We determined in subchapter 7.5.3 that proposition 3b does not apply to Making Waves, meaning that managers do not seem to prioritize exploitation. Instead, they seem to balance explorative and exploitative projects quite well. We also found that the managers, and particularly the CEO, have a particular approach to managing ambidexterity that only partly corresponds to the management approaches described in subchapter 3.5.4 and summarized in Figure 8.2 below.

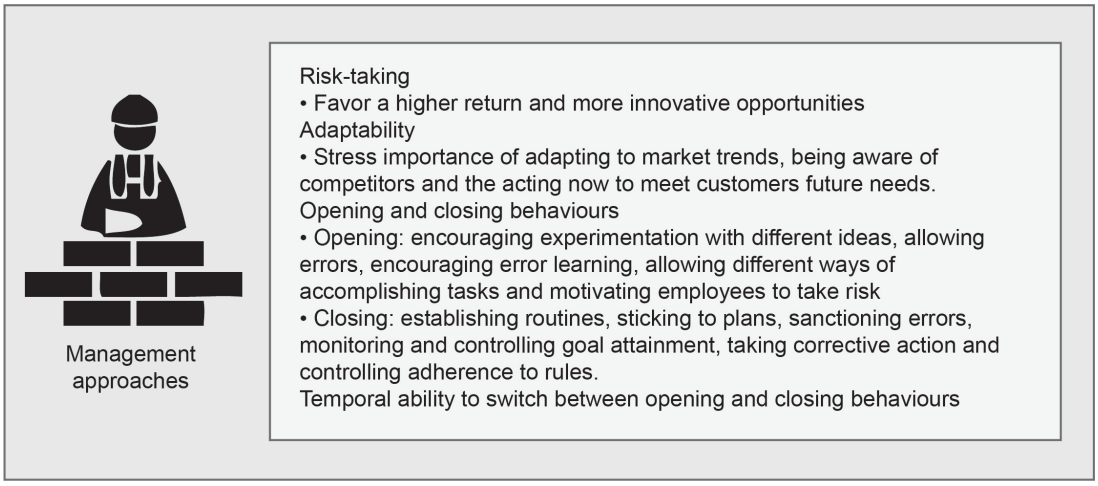


Figure 8.2 Management approaches to ambidexterity (from subchapter 3.5.4).

The opening and closing behaviours are defined by Rosing et al. (2011) in subchapter 3.5.4, and they argue that it is important to balance the two behaviours to achieve ambidexterity. The CEO in particular is capable of risk taking, adaptability, opening behaviours, closing behaviours, and a temporal ability to switch between opening and closing behaviours. However, we find very few indicators of closing behaviours. If we only had spoken to the CEO, we might have suspected him of playing down his own closing behaviours, but almost all the other informants claimed that their high level of autonomy is one of the best aspects of working in Making Waves, thus indicating that they are subject to managers with opening behaviours. What Rosing et al. (2011) actually mean by balancing opening and closing behaviours is not clear, but the CEO of Making Waves seems to use closing behaviours as little as possible. This may be because Making Waves is an organization that employs mostly highly educated people, and because they are able to see when they need to be cautious it is more important to encourage them to take risk.

An interesting topic for future research could be whether the ability of managers to personally balance the paradox of exploration and exploitation, in accordance with how the employees work, is essential for their company's ability to be ambidextrous. We strongly believe that to be the case, both based on our observations and the theories on management approaches to ambidexterity that we presented in subchapter 3.5.4. Yet, we would like to see a quantitative research of the topic.

In our study, we used the Making Waves principle for project selection called fun, fame, and fortune quite extensively. We argued that fun is closely connected to exploration, and that fortune is closely connected to exploitation. While doing easy projects for a quick fortune can be described as exploitation, the explorative fun and fame-related projects also have an element of fortune to them. While redesigning Det Norske Teateret's profile itself cost more than it paid, there may be long-term profits in terms of recognition that may generate more customers. It's easy to forget that exploration is about making money in the long term, and being able to see the potential profits of exploration might be a very important management skill for an ambidextrous organization.

We also believe that since companies seem to use their customers to achieve ambidexterity (proposition 3a), their balancing of exploration and exploitation is determined by their market position. Making Waves is now in a position where they have more customer requests than they can handle, and can therefore choose projects based on ambidexterity criteria. But, if they had to accept every customer request, chance would determine whether they would be able to balance exploration and exploitation.

8.6 Proposition 4

The CEO's leadership style is crucial for the effect of contextual approaches.

The CEO is personally involved in the daily running of Making Waves. We found that he uses all the management approaches to ambidexterity, and that his behaviours can be closely linked to the contextual approaches in Making Waves. The

relationship between management approaches and contextual approaches is shown in Figure 8.3.

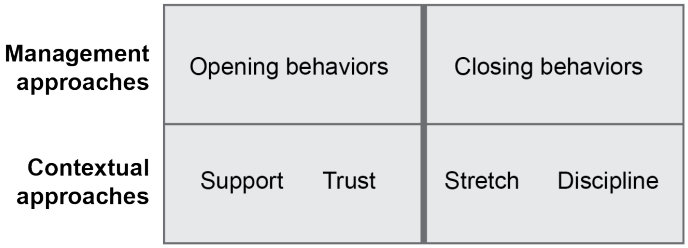


Figure 8.3 Management approaches and contextual approaches.

Our impression of the CEO in Making Waves is that he has a strong personality, and he interacts a lot with other employees, in all layers of the hierarchy. Since contextual ambidexterity is about individual employees using their own judgment as to how they should divide their time between explorative and exploitative activities, and companies use behavioural mechanisms to achieve this goal, we find it very plausible that a CEO who has a broad contact surface with the employees have a great influence. Making Waves are organized with a flat hierarchy, and informal information sharing, with structures that allow the CEO to influence the contextual approaches with his or her personality.

8.6.1 Evaluation of proposition

We find that the leadership style of the CEO in Making Waves has a strong influence on the contextual approaches to ambidexterity. We do not, however, have any way of proposing that the effect of the contextual approaches would be less if they were misaligned with the CEO's leadership style. Still, it seems reasonable that an interfering CEO could transform dysfunctional contextual approaches to functional ones by his or her presence, so there is no reason for suspecting the opposite.

We therefore find that our research strongly supports that the CEOs leadership style influences the effect of contextual approaches, but we have no clear evidence that says it is crucial for the effect of contextual approaches. We can therefore only partly support proposition 4: *The CEO's leadership style is crucial for the effect of contextual approaches*. It could be interesting to evaluate a proposition 4 through a quantitative study, by comparing companies with different management types and trying to determine the actual importance of the CEO's leadership style.

8.6.2 Implications

We explained in subchapter 8.5.2 that the CEO seems to favour opening behaviours over closing behaviours, thus contradicting Rosing et al. (2011), who claim that a leader needs to balance opening and closing behaviours. This may be a specific characteristic of the CEO of Making Waves, but it may also be an indication that closing behaviours are not that necessary in knowledge-based value shops.

It seems that the CEO is able to influence the contextual approaches in Making Waves by interaction with his employees. But as Making Waves is growing, we think it will be more difficult for the CEO to know all his employees. Making Waves

currently has almost 300 employees, and the question is how many they can have before the CEO no longer recognizes everyone. We wonder how a CEO that does not know his employees will affect the contextual approaches. Perhaps the CEO would gradually be transformed from a guy that everyone can talk to into a symbol that everyone could relate to? We find these questions interesting, and a topic of further research could therefore be how company size affects the CEO's effect on contextual approaches.

8.7 Proposition 5a

To solve the paradox of personal drivers, the value shop must use elements from company culture.

We found some indicators of Making Waves using elements from company culture to solve the paradox of personal drivers. Their strong company culture is important for socializing practical artists, particularly their mentoring of new employees, but not as important for separating work modes. We have summarized our findings in Table 8.5 below.

Table 8.5 The paradox of personal drivers in Making Waves.

Socializing practical artists	**Separating work modes**
Making Waves puts an emphasis on mentoring, where experienced employees help others.	Projects have several phases, from explorative to exploitative.

8.7.1 Evaluation of proposition

We found no particular strong indicators of Making Waves using its company culture to separate work modes, but it seems that the company culture is useful for socializing practical artists. We therefore cannot support proposition 5a: *To solve the paradox of personal drivers, the value shop must use elements from company culture*, if one interprets the proposition to mean that the company uses company culture for both socializing practical artists and separating work modes. We can, however, say that proposition 5a is part of the solution of solving the paradox of personal drivers. We will further evaluate proposition 5a in the next subchapter, together with proposition 5b.

8.8 Proposition 5b

To solve the paradox of personal drivers, the value shop must use elements from knowledge management.

The nested paradox of personal drivers is solved by socializing practical artists and temporarily and structurally separating work modes. These are contextual and architectural, approaches, respectively. When comparing our empirical data to the theory we gathered examples of both approaches in Table 8.6.

Table 8.6 Examples of approaches for solving the paradox of personal drivers.

Socializing practical artists	Temporarily and structurally separating work modes
• Time set aside for improving skills. • Goal of invoicing per cent less than 80%. • New employees intern in projects. • Allowing employees to influence decisions about their own workday, as well as the company in general. • Creative profile in MW leads to a feeling that “everyone is creative”.	• Less structural than temporal separation. • Employees are divided into business units, but most work in project teams. • Project manager in charge of temporally separating work modes. • Agile methodology complicating temporal separation.

8.8.1 Evaluation

The theory on nested paradoxes is a result of a study done on five product design companies. We were curious to find out if the paradox of personal drivers could be applied to non-designers as well. In our empirical data we found that all types of knowledge workers did in fact feel a strain between spending hours on fun projects, and having the willpower to work efficiently and staying within the time frame they were given.

We found evidence that Making Waves uses elements from knowledge management related to both architectural approaches and contextual approaches, although there were few examples of them structurally separating work modes. It seems that Making Waves places less emphasis on structurally separating work modes, which may indicate that value shops use socialization and temporal separation of work modes to deal with the paradox of personal drivers. An explanation for this may be that the project-based work the company does, requires employees to work close with employees from other business units. Through our discussion of empirical data, we have developed the opinion that structurally separating work modes is not efficient, nor desirable for project based value shops.

We therefore find only partial support for proposition 5b: *To solve the paradox of personal drivers, the value shop must use elements from knowledge management.*

8.8.2 Implications

Proposition 5a and 5b give the impression that a way to solve the paradox of personal drivers by using both company culture and knowledge management. But balancing practical artists and separating work modes in Making Waves does not appear difficult. It seems that the theory concerning the approaches for solving the paradox of personal drivers by Andriopoulos and Lewis (2009) is not completely transferable to project-based value shops. For further studies on how value shops solve the paradox of personal drivers, we have created a revised proposition that addresses value shops specifically, and removed the aspect of structurally separating work modes. The new proposition reads: “To solve the paradox of personal drivers a value shop must socialize practical artists and temporally separate work modes”.

8.9 Summary

Through our discussion, we found strong support propositions 1a, 2, 3a, partial support for propositions 1b, 4, 5a, and 5b, and no support for proposition 3b. Our findings were mostly in line with expectations, except for proposition 3b, which we assumed we were going to support, due to our assumption that managers would prefer exploitative projects to explorative projects.

In this chapter, we have summarized our findings on each proposition, and evaluated the implications of the discoveries. In the next chapter, which is the final chapter of this thesis, we will formulate an answer to our research question, explain whether we believe our findings can be relevant for other companies, and make theoretical implications based on the findings.

9 Conclusion

In the previous chapter, we presented our findings on each proposition. In this chapter, we will explain how our propositions have helped us answer our research question, and the theoretical implications they have. We will also explain whether we believe our findings can be relevant for other companies, and provide some practical advice for Making Waves.

9.1 Answering the research question

Our research question is “How does Making Waves balance exploration and exploitation?” and through the discussion of our propositions we gained insight that could help us formulate an overall answer to this question. We first had to confirm that Making Waves in fact was a value shop, something we managed to do by finding similarities between the company activities in the empirical data, and the theory on value shop configurations.

In our discussion, we found that Making Waves achieves ambidexterity through their customer projects, because the customer projects define what the company’s employees work with. Making Waves relies heavily on knowledge-acquisition and knowledge sharing in their work, and they combine both tacit and explicit knowledge in their exploitative efforts. We found that as Making Waves has grown and become more structured, the company has had to rely on an increasing amount of architectural approaches. At the same time, the CEO of Making Waves is directly involved in the contextual approaches, which he affects through his leadership style.

We have dismissed the notion that the management in Making Waves prefer exploitative projects to explorative projects, and found out that all types of knowledge workers in Making Waves can experience a strain between passion and discipline. In order to solve the nested paradox that this strain creates, Making Waves cultivates practical artists, but does not structurally separate work modes, as this is not desirable for a value shop. Making Waves does not use the performance management aspect of contextual approaches when refining existing knowledge and acquiring new knowledge. Finally, we have found that Making Waves does not use spatial separation as an architectural measure when being explorative and exploitative.

In the theory we presented a metaphor of four approaches to ambidexterity, and we described ambidexterity as a house of bricks and mortar. We visualized architectural, contextual, combinatorial and management approaches as bricks, mortar, a wall, and a builder, respectively. Because of their extensive coverage in theory we expected to find elements from each approach in our empirical data. Although our metaphor of the four approaches to ambidexterity was not the focal point of our research question or propositions, we found evidence of all four approaches being used. An overall answer to our research question is therefore: Making Waves balances exploration and exploitation by having a management that combines both architectural and contextual approaches to ambidexterity.

9.2 Theoretical implications

In this subchapter, we will explain how our findings might expand the current theory related to ambidexterity, and what this may imply for other companies. In chapter 8, we discussed potential implications of our thesis for existing theories, and how our findings can help build new theories. In this subchapter, we will present the implications we find most interesting.

Performance management and value shops

We found that Making Waves do not utilize performance management to a substantial degree, but focus on the social context of contextual approaches. It seems that performance management is unnecessary in a company with highly educated employees who are granted a high level of autonomy. Thus, we cannot support Gibson and Birkinshaw (2004) claim that businesses have to combine performance management with a social context to create ambidexterity.

Spatial and temporal separation

We found few indicators of spatial separation or a conscious use of temporal separation in Making Waves. To be fair, there is a strong element of temporal separation from start to end in each project, but all projects go through different stages of activities, which means that the existence of temporal separation is not a result of a conscious decision by the management. In our opinion, spatial separation makes no sense in a company where employees do not work primarily within their business units, but in multi-disciplinary projects. We therefore believe that the theories on temporal separation (Gibson and Birkinshaw, 2004, McDonough and Leifer, 1983) and spatial separation (Raisch and Birkinshaw, 2008, Duncan, 1976) are not good indicators of architectural approaches to ambidexterity in value shops. Formalization (Mom et al., 2007, Duncan, 1976) and connectedness (Jansen et al., 2006) seem to be much more relevant indicators.

Size and architectural approaches

Architectural approaches have been widely discussed in relation to profit growth (O'Reilly and Tushman, 2004), but we have found little discourse around the correlation between growth in size and architectural approaches, although it is a fact that growth results in more structure (Ouchi, 1979). Proposition 2: *An increased number of employees requires a value shop to adopt a more rigid structure, which causes an increased emphasis on architectural approaches* is the proposition we find strongest support for. The connection between company growth and architectural approaches seems very logical, both to us and to the employees in Making Waves. We therefore find evidence that the larger a company gets, the more management has to emphasise architectural approaches to ambidexterity.

The importance of the CEO

We could not generalize from the original proposition 4: *The CEO's leadership style is crucial for the effect of contextual approaches*, because the word "crucial" implies a direct connection between the leadership style and contextual approaches. We could not prove such a direct link, but we did found evidence that the CEO's open and personal leadership style affected the contextual approaches. We therefore created a

new proposition that reads: *The CEO's leadership style strongly affects contextual approaches*. We believe that in companies with flat structures, a CEO will strongly affects contextual approaches, because of his influence. This corresponds with what we would expect from the existing theory, where several scholars have pointed out the impact management can have on ambidexterity (Chang and Hughes, 2012, Simsek et al., 2009, Mom et al., 2007, Lubatkin et al., 2006). Having a flat structure is the norm in many Norwegian companies, but this is not as common in many other countries. This may mean that the CEO affects contextual approaches to a larger degree in Norway, than he would in many other countries.

The importance of knowledge management
Knowledge management is an important aspect of innovation management (Adams et al., 2006, Trott, 2008, Tidd and Bessant, 2011). Innovation management has to do with managing exploration and exploitation, which can lead to ambidexterity if balanced correctly. It is obvious that knowledge management plays a vital role in organizations that make money by solving problems, such as value shops, and through our study we found that acquiring and sharing knowledge is a very important aspect of achieving ambidexterity for Making Waves. We assume that knowledge management is important for all value shops that use a high level of knowledge to solve problems for customers. We also believe that the theoretical field of ambidexterity and knowledge management could benefit from cross-pollination of ideas.

9.3 Topics for further research

In this subchapter, we will recap the most interesting topics for further research, as outlined in chapter 8.

Systems for knowledge sharing
Systems for knowledge sharing is central in modern value shop organizations, and in our discussion, we discovered that many employees used a social knowledge-sharing platform. This led us to wonder if a wiki system or a system with a more social aspect is most efficient for sharing knowledge. We think that the rise of social media has changed the way people share knowledge via systems, and that it would be interested to explore whether social systems are more efficient than filing system for knowledge sharing.

Growth and contextual approaches
We have found strong indications of that company growth leads to more architectural approaches to ambidexterity. But it seems plausible that company growth also leads to more contextual approaches, or at least an increasing need for contextual approaches. A value shop like Making Waves, with employees that are highly knowledgeable, seems to require contextual approaches to grant the employees the autonomy they desire. It would therefore be interesting to determine whether company growth leads to more contextual approaches, as well as architectural approaches.

Merging internal and external approaches
The borders between internal and external approaches to ambidexterity are blurred when Making Waves work closely with customers on projects, and it would be interesting to determine the relative importance of external approaches to ambidexterity in value shops. It would also be interesting to find out more about where one can draw the line between external and internal approaches for value shops in general.

9.4 Practical advice for Making Waves

In this final subchapter of our thesis, we would like to provide some advice to Making Waves, based on our findings. This thesis is based solely on one case study of Making Waves, and it does not provide us with detailed enough information about their daily operations to give them very specific advice. We hope, however, that by reading this subchapter and the rest of the thesis, Making Waves will gain insight in the concepts of exploration, exploitation, and ambidexterity, and that such insight can help them evaluate their internal processes and improve themselves in some manner.

Creativity
From our interviews, we discovered that managers and employees in Making Waves have different opinions about which employees are creative. Some seem to consider employees working on typical exploration activities as creative, and the ones working with exploitation not as creative. Others claimed that all employees are creative, within their field of work. We believe that it would be advantageous for Making Waves to consider all their employees as creative, and not only the employees working in the design department. Having employees that view themselves as creative, or as practical artists, can enhance the overall creativity and push employees to innovate, whether it is by exploration or exploitation. Designers are more often seen as creative because their ideas are easy to present, and they are often more explorative. But both exploratory and exploitive activities lead to innovation, although exploration is often easier to notice, since exploitative innovation often leads to small changes.

Project portfolio
We found strong indications that Making Waves achieve ambidexterity through their customer projects. It is therefore important that Making Waves continues to have an appropriate mix of explorative and exploitative projects.

Company culture
Making Waves have actively maintained their unique company culture of support and sharing, while growing to many times their original size. At the same time, they have had to become more structured, and in the process they have applied many architectural approaches to ambidexterity. We strongly believe that as a knowledge-based value shop, Making Waves should continue to prioritize the upkeep of their company culture. The company culture is closely linked to the contextual approaches, and from the theory and empirical data, we interpret that both culture and contextual approaches will be increasingly important for a company that strives to be innovative and achieve long-term success.

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11 Appendix

11.1 Appendix 1: Interview invitation

Deltakelse på intervju

Vi er tre studenter som skriver masteroppgave om hvordan bedrifter balanserer effektivisering og nyskaping, og ønsker å snakke med deg om ditt arbeid i Making Waves. Hensikten med dette intervjuet er å se hvordan du oppfatter dine egne arbeidsoppgaver og arbeidsoppgavene til dem rundt deg.

Intervjuet krever ingen forberedelser fra din side, og kommer til å handle om detalje-informasjon om tekniske sider ved arbeidet ditt. Informasjonen vi samler blir behandlet konfidensielt, og vi kommer til å anonymisere deg i oppgaven.
Vi setter stor pris på at du deltar!

11.2 Appendix 2: Interview introduction

Introduksjon

Hensikten med dette intervjuet er å se hvordan du oppfatter dine egne arbeidsoppgaver og arbeidsoppgavene til dem rundt deg. Oppgaven vår handler om forholdet mellom nyskaping og effektivisering i bedrifter, og vi ønsker å se på hvordan dere jobber. Det finnes ingen “riktig” eller “gal” måte å jobbe på, og hensikten med denne studien er ikke å avdekke svakheter eller styrker i Making Waves. Vi ønsker å se hvordan dere jobber og sammenligne resultatet med hvordan faglitteratur tror at bedrifter jobber. Mesteparten av faglitteraturen om forholdet mellom nyskaping og effektivisering handler om produksjonsbedrifter, for eksempel bilprodusenter, og vi ønsker å se om noen av de samme prinsippene viser seg hos dere, som er en servicebedrift mer enn en produsent av fysiske varer.

Vi vil gjerne at du prater om hvordan du jobber generelt, og hvordan du forholder deg til det større miljøet som utgjør Making Waves. Vi vil gjerne bruke opptaker for å få med detaljer uten å måtte skrive for mye, men opptakene blir ikke offentliggjort. Vi skal kun bruke dem til å skrive korrekte opplysninger etterpå, og vi kommer til å anonymisere deg i oppgaven.

Hvis vi skal skrive noe som vi ønsker å refere til deg personlig med, vil vi selvfølgelig sende det til deg på epost først, slik at du kan godkjenne det. Høres det greit ut?

Har du noen spørsmål?

Med vennlig hilsen

Tharald Giæver Helge Lundsvoll Andersen Kari Clifford

11.3 Appendix 3: Interview guide #1

Til ansatte som ikke er medlem av ledergruppen

Din stilling
Hvis du helt kort kan starte med å fortelle om hvem du er, utdanningsbakgrunn, annen arbeidserfaring osv. Kan du si mer om stillingen din her hos Making Waves, tittel, offisielle ansvarsområder og hvor lenge du har hatt stillingen.

Hva bruker du arbeidstiden din til?
- Hvordan foreløper en typisk dag eller uke?
- Hvordan vil du beskrive måten du jobber på?

Kunne du forklart litt mer inngående om din stilling, hva er viktig for deg (å oppnå) i jobben din?
- Hvilke arbeidsoppgaver har høyest prioritet?
- Hvilke arbeidsoppgaver liker du best?
- Hvilke arbeidsoppgaver skulle du ønske å bruke mer tid på?
- Hvilke arbeidsoppgaver skulle du ønske å bruke mindre tid på?

Hvilke andre i selskapet samarbeider du tettest med, og hvordan samarbeider dere?

Making Waves
Kan du fortelle noe om historien om Making Waves?
- Kan du beskrive en hendelse/situasjon/endring du mener har hatt stor påvirkning på hva slags selskap Making Waves er i dag?
- I hvilken grad har disse hendelsene bidratt til dagens organisering?
- I hvilken grad har disse hendelsene bidratt til utformingen av arbeidsprosesser/metode?

Kjenner du til visjonen til Making Waves? Hva legger du i den visjonen?

Hvordan vil du beskrive Making Waves sin strategi?
- Hvordan føler du at dere følger strategien?

Exploration and exploitation
Kan du beskrive en typisk prosess for et prosjekt helt fra før salg til etter leveranse?
- Hvordan går dere frem når dere starter et prosjekt?
- Hvordan samarbeider dere med kunden?
- Kan du beskrive innsalgsprosessen?

La oss si at dere tar på dere et nytt oppdrag som ligner på et tidligere oppdrag. Hvor mye gjennbruker dere av det gamle oppdraget?
- Hvordan forholder dere dere til å kutte kostnader?
- Hva gjør dere for å effektivisere driften?
- Var opprettelsen av en avdeling i Polen et tiltak for å få ned kostnader?

Hva legger du i å jobbe kreativt?

- Hvordan klarer Making Waves å fornye seg?
- Er det spesifikke personer som jobber kreativt og med fornyelse, eller alle?
- Har kreative arbeidsprosesser ledet til utviklingen av nye produkter, tjenester eller nye interne arbeidsprosesser?

Arkitektonisk

Hvordan varierer arbeidsoppgavene dine over tid?

Hender det at du skifter faste oppgaver?

- Blir du oppfordret til å bytte roller i bedriften?

Hvilke typer tjenester er det dere selger?

- Kan du beskrive hver tjeneste nærmere?
- Har dere et bevisst forhold til fordelingen av type tjenester?

Kontekstuell

Kan du fortelle om en gang du følte at du gjorde en spesielt god jobb for Making Waves?

Hva preger arbeidsmiljøet i Making Waves?

- Hvordan skiller arbeidsmiljøet seg i Making Waves fra andre selskaper? Antar du?
- Holder man seg mest sammen med de i sin avdeling? til lunsj osv?
- Hvordan foregår internkommunikasjon? Formell og uformell?
- Vil du beskrive arbeidsmiljøet i Making Waves som prestasjonsfokusert?
- Hvordan vil du beskrive forholdet ditt til rutiner?

Hvem i selskapet spør du om råd i vanskelige situasjoner?

- Et problem du ikke finner løsning på? Prioritering av arbeidsoppgaver inn mot en deadline?
- Kollegaer, hvem?
- Overordnede, hvem?
- Hvordan er støtten i arbeidsmiljøet rundt å ta egne beslutninger i krevende sammenhenger?

Hvordan er samarbeidsklimaet i Making Waves?

- Har du noen kollegaer du vet du samarbeider bedre med enn andre?
- Er det de samme du samarbeider godt med faglig som du liker å tilbringe tid med i sosiale settinger også?
- Har du fått noen nære venner gjennom jobben i Making Waves som du tilbringer mye tid sammen med på fritid?

Ledelse

Hvem er din nærmeste leder?

Hvilken myndighet har du generelt til å ta beslutninger?

- Blir det oppfordret til å ta risiko eller til å forholde seg til et sett med regler i forbindelse med viktige beslutninger?

Hvordan ønsker du å bli ledet?
- Kan du gi et eksempel på godt lederskap?

Hvordan blir du ledet i dag?

Hvordan ønsker du å lede andre?

Avsluttende spørsmål
Som en avslutning på intervjuet ønsker vi at du forteller litt om hva du ser for deg i framtiden til Making Waves, i hvilken retning selskapet vil utvikle seg.

Hvordan er bransjen i endring?
- Hva ser dere på hos konkurrenter?

Hvor er Making Waves om fem år?
- Hvilke karakteristikker beskriver selskapet best da?
- Hvor lønnsomt er selskapet? Hvordan har dere oppnådd dette?
- Hvor nyskapende er selskapet? Hvordan har dere oppnådd dette?

11.4 Appendix 4: Interview guide #2 Top management

Til CEO og andre medlemmer av ledergruppen

Din stilling
Hvis du helt kort kan starte med å fortelle om hvem du er, utdanningsbakgrunn, annen arbeidserfaring osv. Kan du si mer om stillingen din her hos Making Waves, tittel, offisielle ansvarsområder og hvor lenge du har hatt stillingen.

Kunne du forklart litt mer inngående om din stilling, hva er viktig for deg (å oppnå) i jobben din?

- Hvilke arbeidsoppgaver har høyest prioritet?
- Hvilke arbeidsoppgaver liker du best?
- Hvilke arbeidsoppgaver skulle du ønske å bruke mer tid på?
- Hvilke arbeidsoppgaver skulle du ønske å bruke mindre tid på?

Hvilke andre i selskapet samarbeider du tettest med, og hvordan samarbeider dere?

Kunne du fortalt litt mer om hva din funksjon som leder i selskapet innebærer?

- Hvordan foreløper en typisk dag eller uke?

Om Making Waves

CEO og direktør for People&Processes:
Kan du fortelle litt om bakgrunnen for og historien til Making Waves?

- Hva var ambisjonen i oppstarten?
- Hvilke hendelser har vært avgjørende i utviklingen av selskapet?
- I hvilken grad har motivasjonen for å starte og/eller drive selskapet i hovedvekt vært på å benytte nye arbeidsmetoder og lage helt nye (revolusjonerende) produkter, eller vært på å jobbe smartere og mer effektivt enn konkurrentene.

Andre ledere:
Kan du beskrive en hendelse/situasjon/endring du mener har hatt stor påvirkning på hva slags selskap Making Waves er i dag?

- I hvilken grad har disse hendelsene bidratt til dagens organisering?
- I hvilken grad har disse hendelsene bidratt til utformingen av arbeidsprosesser/metode?

Kjenner du til visjonen til Making Waves? Hva legger du i den visjonen?

Hvordan vil du beskrive Making Waves sin strategi?

- Hvordan manifisterer den seg i din hverdag?

Exploration and exploitation
Kan du beskrive en typisk prosess for et prosjekt helt fra før salg til etter leveranse?

- Hvordan går dere frem når dere starter et prosjekt?

- Hvordan samarbeider dere med kunden?
- Kan du beskrive innsalgsprosessen?

La oss si at dere tar på dere et nytt oppdrag som ligner på et tidligere oppdrag. Hvor mye gjennbruker dere av det gamle oppdraget?
- Hvordan forholder dere dere til å kutte kostnader?
- Hva gjør dere for å effektivisere driften?
- Var opprettelsen av en avdeling i Polen et tiltak for å få ned kostnader?

Hva legger du i å jobbe kreativt?
- Hvordan klarer Making Waves å fornye seg?
- Er det spesifikke personer som jobber kreativt og med fornyelse, eller alle?
- Har kreative arbeidsprosesser ledet til utviklingen av nye produkter, tjenester eller nye interne arbeidsprosesser?

Har det fra ledelsens side blitt satt i gang prosjekter for å utvikle nye produkter, tjenester eller arbeidsprosesser uavhengig av spesifikke oppdrag fra kunder?

Arkitektonisk
Hvordan varierer arbeidsoppgavene dine over tid?

Hva er bakgrunnen for inndeling i avdelinger? (CEO og direktør for People&Prosesses)
- Hvordan har dette forandret seg over tid?
- Ser ut som dere har strukturert avdelingene etter arbeidsoppgaver. Hvorfor det?

Hender det at de ansatte skifter faste oppgaver?
- Oppfordrer dere de ansatte til å bytte roller i bedriften?

Hvilke typer tjenester er det dere selger?
- Kan du beskrive hver tjeneste nærmere?
- Har dere et bevisst forhold til fordelingen av type tjenester?

Kontekstuell
Hva preger arbeidsmiljøet i Making Waves?
- Hvordan skiller arbeidsmiljøet seg i Making Waves fra andre selskaper? Antar du?
- Holder man seg mest sammen med de i sin avdeling? til lunsj osv?
- Hvordan foregår internkommunikasjon? Formell og uformell?
- Vil du beskrive arbeidsmiljøet i Making Waves som prestasjonsfokusert?

Hvem i selskapet spør du om råd i vanskelige situasjoner?
- Et problem du ikke finner løsning på? Prioritering av arbeidsoppgaver inn mot en deadline
- Kollegaer, hvem?
- Overordnede, hvem?

- Hvordan er støtten i arbeidsmiljøet rundt å ta egne beslutninger i krevende sammenhenger?

Hvordan er samarbeidsklimaet i Making Waves?
- Har du noen kollegaer du vet du samarbeider bedre med enn andre?
- Er det de samme du samarbeider godt med faglig som du liker å tilbringe tid med i sosiale settinger også?
- Har du fått noen nære venner gjennom jobben i Making Waves som du tilbringer mye tid sammen med på fritid?

Ledelse
Hvordan blir oppgaver delegert i Making Waves?
- Hvem delegerer til hvem?
- Sender toppledelsen spesifikke oppgaver langt ned i systemet?

Hvilken myndighet har du generelt til å ta beslutninger?
- Blir det oppfordret til å ta risiko eller til å forholde seg til et sett med regler i forbindelse med viktige beslutninger?

Hvordan ønsker du å bli ledet?
- Kan du gi et eksempel på godt lederskap?

Hvordan blir du ledet i dag?

Hvordan ønsker du å lede andre?

Hvilken myndighet har ansatte generelt til å ta beslutninger?
- Blir det oppfordret til å ta risiko eller til å forholde seg til et sett med regler?

Avsluttende spørsmål
Som en avslutning på intervjuet ønsker vi at du forteller litt om hva du ser for deg i framtiden til Making Waves, i hvilken retning selskapet vil utvikle seg.

Hvordan er bransjen i endring?
- Hva ser dere på hos konkurrenter?

Hvor er Making Waves om fem år?
- Hvilke karakteristikker beskriver selskapet best da?
- Hvor lønnsomt er selskapet? Hvordan har dere oppnådd dette?
- Hvor nyskapende er selskapet? Hvordan har dere oppnådd dette?

11.5 Appendix 5: Interview guide #3

Din stilling
Hvis du helt kort kan starte med å fortelle om hvem du er, utdanningsbakgrunn, annen arbeidserfaring osv. Kan du si mer om stillingen din her hos Making Waves, tittel, offisielle ansvarsområder og hvor lenge du har hatt stillingen.

Hva bruker du arbeidstiden din til?
- Hvordan foreløper en typisk dag eller uke?
- Hvordan vil du beskrive måten du jobber på?

Kunne du forklart litt mer inngående om din stilling, hva er viktig for deg (å oppnå) i jobben din?
- Hvilke arbeidsoppgaver har høyest prioritet?
- Hvilke arbeidsoppgaver liker du best?
- Hvilke arbeidsoppgaver skulle du ønske å bruke mer tid på?
- Hvilke arbeidsoppgaver skulle du ønske å bruke mindre tid på?

Hvilke andre i selskapet samarbeider du tettest med, og hvordan samarbeider dere?

Making Waves
Kjenner du til visjonen til Making Waves? Hva legger du i den visjonen?

Hvordan vil du beskrive Making Waves sin strategi?
- Hvordan føler du at dere følger strategien?

Exploration and exploitation
La oss si at dere tar på dere et nytt oppdrag som ligner på et tidligere oppdrag. Hvor mye gjenbruker dere av det gamle oppdraget?
- Hvordan forholder dere dere til å kutte kostnader?
- Hva gjør dere for å effektivisere driften?

Hva legger du i å jobbe kreativt?
- Er det spesifikke personer som jobber kreativt og med fornyelse, eller alle?
- Føler du at du jobber kreativt?

Arkitektonisk
Hvordan varierer arbeidsoppgavene dine over tid?

Hender det at du skifter faste oppgaver?
- Blir du oppfordret til å bytte roller i bedriften?

Hvilke typer tjenester er det dere selger?
- Kan du beskrive hver tjeneste nærmere?
- Har dere et bevisst forhold til fordelingen av type tjenester?

Kontekstuell

Kan du fortelle om en gang du følte at du gjorde en spesielt god jobb for Making Waves?

Hva preger arbeidsmiljøet i Making Waves?

- Hvordan skiller arbeidsmiljøet seg i Making Waves fra andre selskaper? Antar du?
- Holder man seg mest sammen med de i sin avdeling? til lunsj osv?
- Hvordan foregår internkommunikasjon? Formell og uformell?
- Vil du beskrive arbeidsmiljøet i Making Waves som prestasjonsfokusert?
- Hvordan vil du beskrive forholdet ditt til rutiner?

Hva er negativt med arbeidsmiljøet i Making Waves?

Hvem i selskapet spør du om råd i vanskelige situasjoner?

- Et problem du ikke finner løsning på? Prioritering av arbeidsoppgaver inn mot en deadline?
- Kollegaer, hvem?
- Overordnede, hvem?
- Hvordan er støtten i arbeidsmiljøet rundt å ta egne beslutninger i krevende sammenhenger?

Hvordan er samarbeidsklimaet i Making Waves?

- Har du noen kollegaer du vet du samarbeider bedre med enn andre?
- Er det de samme du samarbeider godt med faglig som du liker å tilbringe tid med i sosiale settinger også?
- Har du fått noen nære venner gjennom jobben i Making Waves som du tilbringer mye tid sammen med på fritid?

Ledelse

Hvem er din nærmeste leder?

Hvilken myndighet har du generelt til å ta beslutninger?

- Blir det oppfordret til å ta risiko eller til å forholde seg til et sett med regler i forbindelse med viktige beslutninger?

Hvordan ønsker du å bli ledet?

- Kan du gi et eksempel på godt lederskap?

Hvordan blir du ledet i dag?

Hvordan ønsker du å lede andre?

Avsluttende spørsmål

Som en avslutning på intervjuet ønsker vi at du forteller litt om hva du ser for deg i framtiden til Making Waves, i hvilken retning selskapet vil utvikle seg.

I hvilken grad ser dere på konkurrenter når dere planlegger fremtiden til MW?

Hvor er Making Waves om fem år?

- Hvilke karakteristikker beskriver selskapet best da?
- Hvor lønnsomt er selskapet? Hvordan har dere oppnådd dette?
- Hvor nyskapende er selskapet? Hvordan har dere oppnådd dette?

11.6 Appendix 6: Informant specific questions

Informant #14

Kan du beskrive et typisk prosjekt du kan ha i strategirådgiverjobben fra start til slutt?

Har du blitt påminnet om at det er timer som teller?

I hvilken grad føler du at du gjør oppgaver i prosjekter som du synes er gøy, men som ikke er direkte etterspurt av kunden?

Hvordan har strategirådgivingen endret seg?

- Fra enkle nettsider til full pakke.
- Hvordan blir jobben i fremtiden?

Informant #15

Føler du at du holder deg teknisk oppdatert?

- Hvor mye tid får du til å oppdatere deg på det tekniske?

I hvor stor grad gjør du ting du synes er kult/gøy i prosjekter, selv om ikke kunden har etterspurt det spesifikt?

Bestemmer man selv at man skal gå fra åpen til lukket fase eller blir dette styrt utenfra?

Informant #16

Mange i MW omtaler mennesker som "ressurser". Hva tenker du om det?

Hva er samarbeidet ditt med [informant #18]?

Har du blitt påminnet om at det er timer som teller?

I hvilken grad føler du at du gjør oppgaver i prosjekter som du synes er gøy, men som ikke er direkte etterspurt av kunden?

Hvordan liker folk i MW de formelle systemene for kommunikasjon?

- Intranett
- The Wave

Har du formelle mål du skal nå i rollen som kulturminister?

Hvordan kombinerer du de to stillingene dine?

Informant #17

Du hadde en diskusjon med [informant #4] på møtet mandag. Hva kan du si om den?

Hva synes du om formelle systemer for kommunikasjon?

Hvordan går dere frem når dere skal selge inn et prosjekt til en kunde?

Vi har hørt fra andre at det tydeligvis er en del som føler at prosjekter ganske ofte blir oversolgt, at man ikke klarer levere innenfor de rammene som er solgt inn. Hva tenker du om det?

Blir ansatte påminnet om at det er timer som teller?

Informant #18

Hva er viktigst når det gjelder organisering. Oppdeling i fagdisipliner via forretningsenheter eller oppdeling i prosjekt basert på utfyllende kompetanse?

Mennesker blir ofte omtalt som "ressurser" hos dere. Hvorfor?

Hvordan skiller du mellom formell og uformell kommunikasjon?

Hva ser dere etter i nyansettelser?

- Ansetter dere utelukkende på individuelle karakteristikker, eller bygger dere en gruppe?

Hvordan håndterte dere overtagelsen av Zoot?

Kan du fortelle om en gang dere har vært nødt til å sparke noen?

- Hvorfor ble den ansatte sparket?

Har dere et saksbehandlingssystem for personalsaker?

Hvilket samarbeid har du med [informant #16]?

Har du spesielle personer du snakker med for å få inntrykk i hva som skjer på arbeidsplassen?