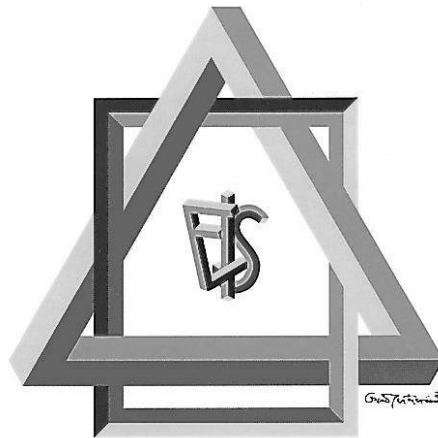


Linköping Studies in Science and Technology

Thesis No. 1792

*Patterns of corporate visual self-
representation in accounting narratives*

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Economic Information Systems

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Patterns of corporate visual self-representation in accounting narratives

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Abstract

This dissertation deals with firms' visual and pre-visual self-representations in accounting narratives. Self-representations are those descriptions about the company that firms include in accounting narratives to convey the current standings and their identity. External stakeholders increasingly expect non-numerical information about firms to be disclosed, and accounting narratives are a key medium for firms to account for their activities and maintain legitimacy as social actors. The question of which reporting conventions exist for legitimating self-representations, especially from a visual perspective, remains unexplored. The purpose of this study is therefore to explore the empirical phenomenon of self-representations in accounting narratives in relation to legitimation rhetoric.

The study is based on three research papers dealing with different patterns of self-representations in accounting-related narratives, including corporate reporting and business model diagrams. The examples are viewed through the theoretical lenses of semiotics and institutional theory, particularly legitimation theory. The study combines visual methods (visual content analysis and visual taxonomy) with other methods (interviews, text analysis) to conceptualize and exemplify what is meant by self-representations in accounting narratives. The study finds that there may be multiple parallel pre-visual self-representations at play to influence representations of the self, that visual self-representations are becoming more common in accounting narratives, and that several rhetorical strategies for legitimation are observable in these representations. By showing how diagrams can serve a legitimating purpose in accounting narratives, it is argued that diagrams should be considered on par with graphs and photographs as visual rhetorical devices in accounting narratives, and that they could be used as key communicative elements in the accounting process.

Second, based on the longitudinal and comparative examples of self-representations, it is suggested that self-representations increasingly refer to abstract rather than concrete referents. This change is discussed in terms of the increasingly digital and service-based knowledge economy, where material referents give way to "amaterial" values. The contribution of this study is to describe self-representations through several empirical examples, and to thereby increase awareness among practitioners and researchers of how visuals serve as communicative resources with legitimating functions in accounting narratives. Four concepts are proposed as tools for explaining the observed developments, and for improving visual literacy with regard to accounting narratives: inclusive perspective on accounting narratives, amateriality, self-representation, and diagrams.

Keywords: visual research, self-representation, diagrams, accounting narrative, corporate reporting, public disclosure, business models, semiotics, annual report, Ericsson

Sammanfattning

Denna licentiatavhandling handlar om företags visuella och ”för-visuella” själv-representationer i kontexten redovisning. Till självrepresentationer hör de beskrivningar som företaget inkluderar i sin externt rapporterade information för att förmedla dess ställning och identitet. Externa intressenter förväntar sig i ökande utsträckning att även icke-numerisk information redovisas av företaget, vilket gör denna typ av externt rapporterade information viktig för att redovisa aktiviteter och för företag att därigenom bibehålla legitimitet som sociala aktörer. Frågan om vilka rapporteringskonventioner som finns kring företags självrepresentationer är i dagsläget inte utforskad. Syftet med denna studie är därför att undersöka det empiriska fenomenet självrepresentationer i kontexten redovisning kopplat till perspektivet legitimeringsretorik.

Studien baserar sig på tre forskningsartiklar som behandlar olika empiriska exempel och mönster av självrepresentationer, exempelvis affärsmodellsdiagram. Dessa betraktas utifrån de teoretiska linserna semiotik och institutionell teori, speciellt legitimeringsteori. Studien kombinerar visuella metoder (visuell innehållsanalys och visuell taxonomi) med andra metoder (intervjuer och textanalys) för att konceptualisera och exemplifiera vad som menas med självrepresentation i kontexten redovisning. Studien finner att det kan förekomma många parallella för-visuella självrepresentationer som påverkar företags självuppfattning, att visuella självrepresentationer blir alltmer vanliga i företags externt publicerade information, och att flera retoriska legitimeringsstrategier förekommer i det undersökta materialet. Genom att visa hur diagram används som kommunikationsresurs så argumenterar studien för att fortsatt forskning behövs för att undersöka hur diagram, likt mer utforskade visuella format såsom grafer och fotografier, bidrar till företags legitimeringsretorik i externt publicerad redovisningskommunikation, samt att diagram kan fungera som viktiga resurser för självrepresentation i företags redovisningsprocess.

Dessutom föreslås, baserat på longitudinella och jämförande exempel, att självrepresentationer i ökande grad relaterar till abstrakta snarare än konkreta referenter. Denna förändring diskuteras i termer av en alltmer digital och tjänstebaserad kunskapsekonomi, där materiella referenter överges till förmån för ”amateriella” värden. Studiens bidrag är att beskriva själv-representationer genom flera empiriska exempel, och att därmed öka medvetenheten hos praktiker och forskare om hur visuella format kan tjäna legitimeringssyften i kontexten redovisning. Baserat på studiens analys och resonemang lyfts fyra begrepp fram för att förklara den observerade utvecklingen, samt för att bidra till att förbättra praktikers såväl som forskares ”visuella läskunnighet”: ett inkluderande perspektiv på externt publicerad information, amaterialitet, självrepresentation, och diagram.

Nyckelord: visuell forskning, visuella metoder, självrepresentation, diagram, externredovisning, affärsmodell, semiotik, årsredovisning, Ericsson

Preface

Economic Information Systems

Our main focus is where management and IT meet, not least the new, fast-growing, IT-intense organisations. More specifically, we deal with how information is transferred from, between and to people, and with the potential in and consequences of the use of IT. The area includes research on business development, management control, knowledge and competence development, especially in organisations where use of IT plays an important role.

We study the roles that strategies and information systems play in the collaboration between people in organisations in different sectors (public, private and non-profit), networks and coalitions, and the interaction with the surrounding ecologies. Perspectives management – perceiving and handling the perspectives of different stakeholders – is an important part in the striving for a deeper and more nuanced understanding of the phenomena we study.

Our PhD students also participate in the national research school Management and IT, a collaboration between a dozen Swedish universities and university colleges. In line with its name, the research school organises courses, PhD conferences and supports PhD candidate within Management and IT, thus providing a wide network.

The present thesis, *Patterns of corporate visual self-representation in accounting narratives*, is written by Emelie Eriksson. She presents it as her licentiate thesis in Economic Information System at the Department of Management and Engineering, Linköping University.

Linköping in October 2017

Alf Westelius

Professor

Economic Information Systems

List of papers

This is a compilation thesis which is based on three research papers that address the topic of self-representations in accounting narratives from different perspectives and with different methodologies. Numbers have been assigned to the three papers based on the chronological order of development. The papers are referred to by their titles or these numbers throughout this dissertation.

1. Eriksson, Emelie. A visual perspective on value creation: exploring patterns in business model diagrams. Submitted to the *European Management Journal* (now in review round two).
2. Eriksson, Emelie. Visual trends in the annual report: the case of Ericsson 1947-2016. Submitted to *Corporate Communications: An International Journal* (now in review round three).
3. Eriksson, Emelie. A practitioner perspective on business models: the case of a Swedish start-up. Presented at the 24th Nordic Academy of Management Conference in Bodø, Norway, 23-25 August 2017. Submitted to the *Journal of Business Models*.

Table of contents

INTRODUCTION.....	9
An inclusive view on accounting narratives	9
Self-representation as the objects of study.....	12
An example of self-representation in accounting narratives.....	13
Study focus and aim.....	16
Organization of the dissertation	17
THEORETICAL LENSES.....	24
A semiotic perspective.....	24
Institutional influences on accounting narratives.....	26
Legitimation rhetoric	28
Chapter summary	32
RESEARCH METHOD.....	35
Research design	35
Patterns of self-representations investigated.....	38
Reflections on the methods used in relation to the contributions	41
SUMMARIZING DISCUSSION.....	44
How self-representations represent organizations	44
Presentations or representations?.....	47
Self-representations as rhetorical devices	50
Using self-representations.....	54
The past and present of self-representation in accounting narratives	62
CONCLUSION, IMPLICATIONS, AND SUGGESTIONS FOR FURTHER RESEARCH	66
Summary of the findings.....	66
Concepts for visual literacy in accounting practice and research	67
Research implications	68
Practical implications.....	69
Suggestions for further research	69
REFERENCES.....	72
PAPERS	81

Tables and figures

List of figures

Figure 1: Ericsson CEO Björn Svedberg in Ericsson's annual reports	14
Figure 2: Front page of Ericsson's 1959 annual report.	49
Figure 3: Roles involved in the production, viewing, and evaluation of diagrams	56

List of tables

Table 1: Overview of papers and methods	18
Table 2: Outline of how visual rhetoric supports legitimation strategies.....	31
Table 3: Proposed links between levels of sign conventions and legitimation rhetoric...	33
Table 4: Overview of papers and research methods.....	38
Table 5: Comparison between traditional and current use of visuals.....	64

CHAPTER 1

INTRODUCTION

An inclusive view on accounting narratives

This dissertation deals with firms' visual and pre-visual self-representations in accounting narratives. Self-representations are those descriptions about the company that firms include in accounting narratives to convey their current standings and identity. Self-representations can be included in accounting narratives in an attempt to disclose information about the firm as a social actor (legitimation rationale) and to convey difference from other social actors (identity rationale). To study self-representations in accounting narratives, this dissertation is positioned in the context of firms' publicly disclosed information, which has been examined within the scope of the accounting literature in many previous studies (see e.g. Cooke, 1989; Harte and Owen, 1991; Preston, Wright and Young, 1996; Bartlett and Jones, 1997; Beattie and Jones, 1997; Wennestam, 1998; Mouritsen, Larsen and Bukh, 2001; Stanton and Stanton, 2002; Clatworthy and Jones, 2003; Beattie, Dhanani and Jones, 2008; Campbell, McPhail and Slack, 2009; Leung, Parker and Courtis, 2015).

External reporting commences when the company communicates accounting information and related information to a mostly external audience of investors, society, and regulatory bodies, though the content and style of the information hinges on both internal activities summarized in the accounting process and on the firm's communication strategy. Firms' relationships with external stakeholders depend on this information exchange in several ways; for example, the accounting narratives provide information that helps shareholders make investment decisions, and reported information is used by regulatory bodies and society to greenlight the firm's continued operations on legal and moral grounds. As the site where firms account for their activities to maintain legitimacy (Höllerer *et al.*, 2013), external reporting of information is therefore an important step in a firm's accounting process¹,

¹ This process is based on both numerical and non-numerical grounds. While it is not the focus of this dissertation, the conceptualization of the numerical and measurable dimensions (cf. Hines, 1988) are essential

especially considering society's increasing demands for information about the company's activities (Evangelisti Allori and Garzone, 2011).

Despite the widening scope and length of accounting narratives (Beattie, Dhanani and Jones, 2008; Ditlevsen, 2012b; Michalak *et al.*, 2017), the accounting literature has often adopted a narrow perspective on accounting, including book-keeping and follow-up on accounting information, or the external output of this process, e.g. the written narratives or numerical information in the annual report. A previous study even found that numerical formats were the preferred data type in annual reports and that non-financial information about intellectual capital was considered less important than numerical sections by financial analysts (Wennestam, 1998). As a counterpoint to the view, this study explores accounting from a wider perspective, which encompasses not only information used for internal decision making or in response to regulatory and shareholder requirements, but also information that is used to convey the idea of the organization such as it is presented to employees, investors, and society, as part of the legitimation rationale. I include not only numerical and written accounts of the company's standings, but also formats like narrative texts, photos, diagrams, and graphs, which increasingly accompany more traditional formats to the point where they make up a significant portion of firms' publicly disclosed information (Beattie, Dhanani and Jones, 2008; Michalak *et al.*, 2017). The dissertation's 'inclusive view'² also considers several communication channels for self-representations, such as annual reports and websites, and sees them as key sites where firms account for their activities and identities.

for the legitimation of organizations. For example, a measurement system is named as a prerequisite for the accountability of an organization in the study of the Swedish Armed Forces (SAF) by Catasús and Grönlund, who write that "*the search for measurements is paramount to organisational survival. Without a measurement system the accountability system is weak; with a weak accountability system, an organisation loses its legitimate position in society*" (Catasús and Grönlund, 2005, p. 481). Based on the observed changes to the goals of both accounting and mission of the SAF, the authors propose that measurement and accountability could be described as features of legitimating organizations rather than achieving effectiveness and efficiency.

² To my knowledge, this expression has not been used to refer to what I discuss here before, although the type of research I propose has certainly been undertaken in the past, and accounting organizations have proposed frameworks that favor a broader view on the content and style of accounting narratives, e.g. Integrated Reporting and ICAEW (2010). Another potential dimension could focus on the sites of communication. As Tregidga *et al.* (2012) point out, there is much research on annual reports, but "*less is known about ad hoc communications such as CEO speeches, corporate press releases, organizational submissions to legislative processes and, perhaps of growing importance, corporate communication via social media and networking sites.*" Beattie (2014, p. 123) refers to the importance of a "holistic understanding" as part of a research agenda on accounting narratives, and though this is described as including not only narrative features but also argumentation schemes, hedging and repetition, the term seems to be limited to the narrative, in Beattie's view, the written accounts in annual reports, which is a more narrow interpretation of accounting narratives than the one I propose here.

The inclusive view on accounting narratives takes into account that organizations increasingly incorporate visuals as part of their self-representation in annual reports (Graves, Flesher and Jordan, 1996; Preston, Wright and Young, 1996; David, 2001; Beattie, Dhanani and Jones, 2008; Ditlevsen, 2012b), and that firms report about intellectual capital in narrative rather than quantitative terms (Campbell and Abdul Rahman, 2010). Part of the explanation lies with changing regulatory requirements; for instance, Swedish law (ÅRL) requires the publication of a corporate governance report alongside the annual report, and the British Financial Reporting Council has issued guidelines about the publication of a Strategic report in order to “*provide shareholders with a holistic and meaningful picture of an entity’s business model, strategy, development, performance, position and future prospects*” (FRC, 2014, p. 3). The narrower view on accounting may fail to consider the developments taking place both on a practical and regulatory level, while the inclusive view allows for the addressing of, and discussion of, present developments in accounting and reporting practice.

One example of how this development is that some companies present illustrations of their business model on their websites or in their annual reports. This practice is explored from a visual perspective in Paper 1 of this dissertation, which analyzes how companies use diagrams to present their business model to external audiences. Though some studies choose to label business models as “non-accounting information” (Nielsen and Bukh, 2011, p. 268), business models are increasingly published in accounting channels such as annual reports (see e.g. Giunta, Bambagiotti-Alberti and Verrucchi, 2013; Bini, Dainelli and Giunta, 2016; Michalak *et al.*, 2017)), meaning that they would be interpreted as part of the accounting narrative in the inclusive sense that I adopt in this study. As a complement to the cross-sectional study in Paper 1, Paper 2 explores visuals use at different points in time in the annual reports of the Swedish telecom company Ericsson. This paper adds a longitudinal perspective on the role of visuals in accounting narratives by showing that visuals such as photographs and diagrams are increasingly used to portray the company. Another type of image examined in this dissertation is that of mental images. Paper 3 of the dissertation examines mental business models used in a Swedish new venture, and serves as an example of the internal dynamics that take place before or concurrently with the presentation of self-representations to external audiences. Together, the visual papers, Paper 1 and Paper 2, and the ‘pre-visual’ Paper 3, increase the understanding of how companies’ self-representations are presented in accounting narratives, and how they emerge.

Self-representation as the objects of study

As indicated above, each included paper deals with self-representation in accounting narratives in different ways and from different perspectives; however, the overarching theme connecting the three papers is that they represent the inclusive view on accounting narratives in that they either use new terminology (business models) or new formats (visuals, diagrams). In addition, while I was preparing this dissertation, the concept of self-representation became an important term to describe the empirical phenomenon investigated, and to link the three papers. The business model diagrams in Paper 1 are self-representations in the sense that they represent firms' intended value creation structures or processes, thereby exemplifying how accounting narratives that respond to fashionable concepts such as 'business models' also convey uniqueness. In Paper 2, self-representations helped to convey the key symbols of identity at Ericsson and thus served as containers of 'identity motifs' that legitimated the company's core identity. In the new venture in Paper 3, the business model was used as a self-representation when describing the venture both to investors and internal audiences.

Self-representation, as the above examples show, can be linked to the literature on legitimation rhetoric in institutional theory (Phillips, Lawrence and Hardy, 2004; Jones *et al.*, 2017). The institutional perspective adopted in this study has influenced the view on what self-representations are, and consequently, how they are analyzed. One such dimension is the matter of authorship of self-representation, which in this study is treated as less a matter of individual firms' specific choices of what to include as content and style in accounting narratives, and more as a matter of how the chosen content reflects shared sign conventions for accounting narratives. For example, in the example in the next section, I do not ask the question of why Ericsson uses a photo of the CEO (that is, what was the intention of using the photo?) in its annual report. Rather, I discuss the images in relation to sign conventions using visual semiotics as the mode of inquiry. While this view does not negate the different sign-makers' agency, it places more focus on the structural levels of the sign conventions, which is why the institutional concepts of legitimacy and identity play such prominent roles in my discussions of self-representations. To operationalize the institutional approach to self-representations, I follow Jane Davison's (2011) proposal to draw inspiration from Roland Barthes, who wrote that "*a text is made of multiple writings, drawn from many cultures and entering into mutual relations of dialogue*", whereby the text becomes a 'tissue of quotation' that incorporates previous writings (Barthes, 1968, p. 148). To understand the role, the content of accounting narratives is thus a matter of which sources can be linked to the 'quotations', whereas the 'utterances' (i.e. the empirical cases examined in this study) reflect these quotations as conventional legitimacy signs. This means that the accounting narrative

can stand on its own as a product of the social context and influences that led to its construction, and be analyzed as such.

Institutional theory is thus the way that this dissertation conceptualizes the collective level of self-representation, by explaining choices in terms not of creator intentions but how signs reflect legitimation rhetorics, i.e. how they help to convey a firm's *raison d'être*. The institutional perspective raises questions of what kind of self-representations are used, and which kind of shared conventions for legitimation rhetoric are reflected in the use of self-representation by firms. Another question is to which extent firms adapt their self-representation to external pressures, and to what extent self-representations can serve as a medium for expressing uniqueness. These are the types of aspects that this study aims to explore by examining examples of self-representations through the lenses of semiotics and institutional theory.

An example of self-representation in accounting narratives

In what ways can visuals in accounting narratives be seen as self-representations? In this section, I present Figure 1 as an example of how the visual invites different interpretations depending on the composition and elements, which in turn can be related to different visual legitimation rhetoric. The example demonstrates the application of theories from semiotics, the analytical perspective in this dissertation, and thus serves the purpose of exemplifying the approach adopted to study visuals in this dissertation. Specifically, I draw on the concepts photographic framing (how objects are positioned in relation to each other) and color use (Kress and van Leeuwen, 2006) and Davison's (2010) framework of CEO portraiture, which includes physical, dress, spatial and interpersonal codes. The example in Figure 1 comes from the material collected during the work with Paper 2. The example is a set of two portraits of Ericsson's former CEO Björn Svedberg, taken from two of Ericsson's annual reports. The methodology demonstrated here is adapted to the format of diagrams in the papers, particularly Paper 1, but since photographs are a more researched and recognized format overall, I selected them as the illustrative example.

The two photos were published alongside the CEO letters, in which the CEO comments on the past year's performance and the outlook for the future; these have been interpreted as a proxy for the strategy in past research (Stanton and Stanton, 2002; Tengblad and Ohlsson, 2010) and therefore an influential section of the annual report (Tregidga, Milne and Lehman, 2012). As part of this message, the CEO portraits are a way to convey messages of leadership and intangible values of organizations, which is why they are important for the visual construction of corporate identity (Guthey and Jackson, 2005; Davison, 2010). The two

photos in the example were chosen because of their large differences in visual style, even though they use the same visual format (portrait), depicting the same person (Svedberg) wearing similar clothes (formal dress), and doing the same thing (holding a phone while posing for a portrait).



FIGURE 1: ERICSSON CEO BJÖRN SVEDBERG IN ERICSSON'S ANNUAL REPORTS 1985, PAGE 3 (LEFT) AND 1988, PAGE 4 (RIGHT). FROM ERICSSON'S ARCHIVE WITH THE CENTRE FOR BUSINESS HISTORY, WWW.NARINGSLIVSHISTORIA.SE. USED WITH PERMISSION.

The photos were not originally published with the intention of juxtaposition. Rather, they were presumably interpreted as straightforward by readers of the annual reports at the time, and regarded with little suspicion as to how the visual framing affected their impression of the CEO and the company. Seen in isolation alongside the CEO letter to shareholders, both photos depict the CEO in a visually convincing style. However, through analytical juxtaposition, it is possible to see that even seemingly straightforward photographs can serve as self-representation of specific values through visual framing. I will now discuss the two images and how they differ in more detail, to show how juxtaposition and comparison of visuals use between firms and over time can indicate patterns that are not obvious when the images are viewed in isolation. Such comparisons may reveal shared conventions at the level of quotations, i.e. beyond the individual utterances of signs.

The first of the two photographs (left) shows Svedberg in his office with a landline phone to his ear. He is in a work environment: the dark wood behind him signals boardroom, and the paper and pen in front of him indicate that we have caught him in the middle of an important phone call. The framing of the photo puts the CEO firmly in the middle, with little background included; the CEO is the focal point. With the chosen framing, and the way he looks slightly down his nose at the viewer over the rim of his glasses, the CEO is every bit the serious, competent CEO. This impression is connoted via the collection of signs, including the brown clothes, the dark wood, the serious expression, the pen and paper and the framing. If we compare this to the second photo, where the CEO is now standing outside on a bridge, under the blue sky on a sunny day, the connoted impression is different in many respects. For one, the CEO is now pictured alongside the background, so that he becomes part of the urban setting. Leaning against the railing with a smile, he looks relaxed. The frontal angle allows the viewer to engage with the CEO on equal terms, there is no distance between subject and viewer. As a consequence, the CEO is presented as more approachable, open and urban.

In addition, as Ericsson is a telecom manufacturer, the treatment of the telephone is an interesting detail in the two photos. The 1988 photo shows the CEO clutching the mobile phone close to his heart, signaling emotional attachment and approval. The outdoors environment depicted in this photo conveys the possibilities of the mobile phone as a communication device; the CEO is no longer tethered to the landline in the dark office, but can move around freely and stand under a bright-blue sky. The juxtaposition of the two photos highlights how CEO portraits can convey not only different impressions of the CEO, but also different business concepts (connectivity/mobility, traditional/urban) and leadership styles (occupied/approachable, controlling/open) and therefore two different corporate identities. This is achieved since the CEO serves as the proxy of the organization, its ‘face’, and therefore a key element of its identity.

This example speaks to the importance of visual literacy to be able to describe, examine and articulate the roles of visuals in conveying and constructing a company’s identity. A photo of a CEO is not *just* a photo of a CEO, since it is also a photo of an individual in a setting, and so the photo conveys more than ‘the CEO’—this has also been shown to be the case for customers (see Dougherty and Kunda, 1990; Campbell, McPhail and Slack, 2009) and employees (Anderson and Imperia, 1992; Duff, 2011). In the same vein, it has been shown that an illustration is not just an illustration but a link to future intentions (Justesen and Mouritsen, 2009), that a graph is not just a graph but a way to make performance understandable (Beattie and Jones, 1997; Frownfelter-Lohrke and Fulkerson, 2001) or an

attempt to change the impression of poor performance (Curtis, 1997), and that a diagram is not just a diagram but a purposefully framed visualization of a difficult-to-grasp concept (Kress and van Leeuwen, 2006).

Study focus and aim

Self-representation is a central aspect of how organizations justify their existence and become part of the institutional context they operate in, and accounting narratives are a key channel for conveying these representations. The focus of this study is to explore self-representations and improve visual literacy in the accounting field with regard to sign conventions. In addition, since institutions and sign conventions are continuously evolving, an important aspect for the improved understanding of self-representations today is to show how they have changed over time. Another dimension worth exploring with regard to self-representations is what conventions exist and how firms' communication reflects or deviates from such conventions.

While verbal rhetoric is widely studied, how legitimation is accomplished by other semiotic modes is less frequently tackled (Jones *et al.*, 2017). Jones *et al.* (2017) argue that meaning must be made material, visual, or verbal in order to serve the purpose of signification that is necessary in the process of justifying and perpetuating institutions, and note that much of institutional theory has focused on language as a carrier of institutions, but less on visual and material means. Based on this, Jones *et al.* point to a research gap with regards to visual legitimation rhetoric:

While verbal rhetoric is widely studied, how legitimation is accomplished by other semiotic modes has rarely been tackled. The specific features and affordances of the visual mode... provide visual legitimation strategies with room to maneuver that deserve much more scholarly attention. (Jones *et al.*, 2017, pp. 15–17)

In other words, there is an opportunity to contribute to the understanding of the ways visuals are used in accounting contexts by exploring visuals as rhetorical devices for legitimation, and to thereby improve visual literacy in the accounting field. Without visual literacy that supports reflection on visuals in accounting narratives, it would be easy to take their meaning at face-value even though they are neither unproblematic (Unsworth, 2007) nor uncomplicated (Davison, 2014). As Jones *et al.* (2017) point out, it is the current lack of information about how visuals convey legitimacy arguments that often allow visuals to 'fly under the radar' as legitimation resources.

According to Sveningsson, Lövheim and Bergquist (2003), research has three different purposes: to understand, explain or change. Since the understanding of influential conventions and rhetorical strategies is limited, I adopt a research approach aimed at creating understanding to address the research gaps outlined above. That is, this study uses an exploratory approach *to analyze and conceptualize empirical examples of self-representations in accounting narratives in relation to legitimation rhetoric*. This is achieved by exploring empirical examples of the past and present practice of self-representation in accounting narratives, by developing a typology of narrative logics in business model diagrams, by tracing patterns over time in the use of visuals in corporate disclosure, and by conceptualizing the use of business models by practitioners.

In terms of contributions, there is also an explanatory aspiration because the concepts developed from the exploration are used to propose explanations for the empirical phenomena investigated. In addition, my more far-reaching and longer-term vision with this study is to contribute to increasing visual literacy for accounting practitioners and researchers, with regard to the inclusive view on accounting narratives adopted in the dissertation. This is something I hope to achieve through the examples and reasonings provided, assuming, of course, that my work is read and used. To facilitate this, I have striven to make my ideas communicable to both accounting practitioners and academics throughout the text.

Organization of the dissertation

This study is a compilation thesis which is based on three research papers dealing with self-representation within the scope of the inclusive view described above. Each paper contributes to a wider discussion that can be found in the later chapters. In these chapters, the papers serve as examples of how self-representations have been used in accounting narratives in annual reports and on websites, even though the individual papers are not necessarily aimed at an accounting audience. In the following two sections, I present the included papers and the dissertation chapters.

Included papers

The papers, which have their own research purposes and theoretical frameworks, are used as empirical examples of self-representation. An overview of the included papers is provided in Table 1, where the title, purpose, methods, and findings of each of the three papers are summarized. The table also indicates the paper's main contribution to the dissertation, the main theoretical fields, and the publication status as of the time of writing.

TABLE 1: OVERVIEW OF PAPERS AND METHODS

	Paper 1	Paper 2	Paper 3
Title	A visual perspective on value creation: exploring patterns in business model diagrams	Visual trends in the annual report: the case of Ericsson 1947-2016	A practitioner perspective on business models - the case of a Swedish start-up
Type	Empirical	Empirical	Empirical
Purpose	To create a typology of narrative logics in business model diagrams with the aim of showing in what way representations of these logics differ	To provide a longitudinal account of how diagrams have been used in relation to visuals in general in corporate disclosure	To investigate how the business model is conceptualized and used by practitioners, by investigating internal and external descriptions
Main theoretical field	Semiotics Business models	Visual accounting	Business models
Method	Visual taxonomy	Visual content analysis	Interviews, text analysis
Contribution to this study	Examples of visual self-representation in a new format (business model diagrams)	Showing changes in visual self-representation over time	Example of how self-representation results in mental images used internally and in accounting narratives
Publication status	Submitted to a management journal (now in round 2)	Submitted to a corporate communication journal (now in round 3)	Presented at NFF 24 in Bodø 2017, submitted to a business model journal

The papers differ in that they focus on either visual or verbal modes, internal or external perspectives, and past or current practice. For this reason, they are not used for comparative analyses. Rather, they are used complementarily, with each paper adding further exemplification to the conclusions. Together, the papers add a broader understanding of self-representations, and this serves as the input to the analysis of how self-representations reflect sign conventions. The next sections contain summaries of each of the three papers, including a brief background, a description of the research methods used, the main findings, and implications in relation to the purpose of the dissertation.

Paper 1. A visual perspective on value creation: exploring patterns in business model diagrams

Paper 1 asks the question of how firms visualize their business model, and aims to show differences in conceptualizations by using visual methods. The question emerged as I was researching the meaning of business models for what would eventually become Paper 3.

During the preparatory research stage, I noticed that image results from a web search for ‘business model’ almost exclusively yielded variations of the Business Model Canvas developed by Osterwalder and Pigneur (2010), which is a well-known framework in the business model literature. Yet when I investigated how some firms had described their business model, I did not find any visual or conceptual references to the components in the Canvas. Instead, I found that companies used verbal descriptions, and in some cases, diagrams, to communicate about their business model. Thus, rather than draw on what appeared to be a well-known framework, firms used unique visuals to depict their business model.

The purpose of Paper 1 is therefore to develop a visual theory framework for analyzing business model diagrams in order to explain these differences, and to utilize this framework to create a typology of underlying visualization logics employed by firms in their business model diagrams. The empirical material for the analysis consists of 242 business model diagrams published by firms in external channels that can be linked to accounting narratives, namely websites and annual reports. The diagrams were published in annual reports, on ‘investor relations’ sites, or under the heading ‘about us’ on the company website, which indicates that firms view the business model as a representation of the company. The analysis of diagrams was guided by visual semiotics (van Leeuwen, 2005; Kress and van Leeuwen, 2006) and visualization theory (Tufte, 1990; Tversky, 1997; Lengler and Eppler, 2007), and consisted of classifying diagrams according to visual types depending on how they represented value creation. Given that the final goal of classification is to improve the understanding of a subject through simplification (Gröjer, 2001), classification has been described as a useful tool to help make sense of abstract phenomena like business models (Lambert, 2015).

The typology of business model diagrams proposed in the study includes four visualization logics of value creation (classification, transactive, cyclical, and sequential logics). I distinguish between different logics using the analytical dimension transformationality, which is a term I create to refer to how diagrams visualize the transformation of value through visual cues like arrows, spatial placement and the mode of correspondence to the underlying reality. The discussion of different degrees of transformationality in firms’ business model diagrams in Paper 1 contributes to current business model terminology as it adds a theoretical concept to describe different views on the structures, exchanges and processes that are important for value creation (the transformationality of diagrams). In addition, I demonstrate the practical usefulness of the typology by discussing advantages and disadvantages of each type of visualization logic based on the five practitioner examples included in the paper.

Thus, in addition to providing research with a new terminology for classifying business models that focuses on the dimension value creation, the paper serves as a guide that can help practitioners to evaluate business model designs based on expressions of transformationality. I therefore argue that the paper contributes to improved visual literacy with regard to self-representational diagrams for both practitioners and researchers.

Paper 2. Visual trends in the annual report: the case of Ericsson 1947-2016

As indicated in Paper 1, the diagram is one of the formats used for self-representation in present-day accounting narratives. The growing body of research on visuals in accounting texts has concluded that annual reports increasingly include visuals (McKinstry, 1996; Campbell, McPhail and Slack, 2009; Ditlevsen, 2012b) and that this higher number of visuals in annual reports means that visuals are an important element in firms' communication and identity building (Graves, Flesher and Jordan, 1996; Hopwood, 1996; Preston, Wright and Young, 1996; Preston and Young, 2000; Ditlevsen, 2012a; De Groot *et al.*, 2015). However, none of the studies elaborate on diagram use. Even though Tufte (1990) demonstrates that diagrams have been used for information visualization for centuries, little attention has been paid to their use in the accounting context. In fact, Davison's (2015) review showed that diagrams (a category in which she also includes sketches) was one of the least researched types of visuals in accounting studies. Only three studies included in her review focused on diagrams. Though a handful of other studies focus on diagrams from a management perspective (e.g. Kaplan and Norton, 2000; Falk *et al.*, 2016; Ledin and Machin, 2016), diagrams can generally be described as under-researched accounting formats compared to other visuals. For this reason, diagrams are particularly suited to study in this dissertation, as a format used in inclusive accounting narratives that is modestly explored as such by researchers.

Paper 2 responds to the lack of research on how diagram use has evolved in accounting texts. In the paper, I use visual content analysis to track patterns of visuals use in annual reports over time. The empirical material consists of annual reports by the Swedish telecom company Ericsson (69 reports from 1947 to 2016 were analyzed). The main finding is that graphs and diagrams are increasingly used alongside photographs, and that photographs and diagrams increasingly depict generic rather than company-specific matters. Compared to earlier reports, which mostly used directly representative visuals, reports after the 1990s increasingly used diagrams to reflect non-obvious and non-tangible aspects of the organization's standings and identity, such as its strategy, business models, and the governance process. The developments outlined above are interpreted as indications that

visual representations of the company provided in accounting narratives have become less directly representative both in terms of what is shown, and what types of visuals are used to convey information.

These findings can be interpreted in light of the description given by Ericsson in its employee magazine *Kontakten* (1991 and 1988, from Ericsson's archive at the Centre for Business History), where it is stated that Ericsson considers its annual reports important documents for communicating with both internal and external audiences. To support this, by 1991, the production of the annual report had become a sizeable project to produce the yearly "summary" of the company's current standings. Thus, it could be argued that the production of annual reports in Ericsson's case is closely tied to the reporting context overall, as an element that summarizes Ericsson's identity and standings. The close links between identity and historical documents at Ericsson is well described in the doctoral dissertation by Brita Lundström (2006), who shows that history is an important foundation for Ericsson's present identity and self-perception. Therefore, the annual reports can be seen as expressly self-representational in that Ericsson has treated the annual reports as identity work. This makes them useful as a material for examining the case of how a company used visuals to represent itself visually over time.

Paper 3. A practitioner perspective on business models - the case of a Swedish start-up

In their recent examination of the business model field, Massa, Tucci and Afuah (2017) identified three main research streams, one of which is the view that the business model is a cognitive or linguistic schema that managers keep in mind when making decisions. Since this view assumes that actions are taken based on a representation shaped in the minds of the decision makers, it could be argued that the cognitive schemas are discursive constructions, in line with the discourse perspectives on organizations (cf. Alvesson and Kärreman, 2000). However, despite the label, it appears as if most of the 'cognitive image' studies used the researchers' theoretically based conceptualizations of business models to generate a framework for describing the mental images created by managers, rather than the managers' own conceptualizations. Even when a practitioner lens is adopted, the role of practitioners' perception may be limited to conceptual definitions, as in the study by George and Bock (2011), who conducted a discourse analysis on an empirical collection of managers' definitions of 'business model'. However, their data was based on generic definitions of a business model, rather than descriptions of their managers' own firms, which means that the study did not capture how the business models were actually described and used by these managers.

The purpose of Paper 3 is to analyze how the business model is conceptualized from an expressly practitioner-based perspective, and to explore differences between internal and external communication about business models using this perspective. I investigate publicly disclosed information similar to the material in Paper 1 and Paper 2, but I complement this with semi-formal interviews with two informants at the company. Therefore, in this paper I can elaborate on both external and internal representations of the business model, since the interviews allowed me to investigate the company's own perceptions of the design and use of their business model (i.e. how the cognitive schema was created and what role it played in the organization). The findings indicate that the term 'business model' was described differently depending on whether it was used to communicate with external investors or the organizations insiders. The business model was also used differently on the internal level, acting as a guideline both for strategy talks and future development of the business model. In relation to the aim of the study, the paper shows that self-representation has 'styles' depending on who communicates, who the audience is, and what the purpose of the description is.

The dissertation chapters

The rest of the dissertation is organized as follows. *Chapter 2* contains an overview of the frame of reference used for analyzing the empirical examples of self-representation in accounting narratives. The frame of reference acts as a lens for seeing and analyzing the empirical material in order to make sense of it. The main lenses adopted in the dissertation are semiotics and the branch of institutional theory that deals with legitimation rhetoric. Building on the view that an accounting narrative, like other texts, can be seen as a 'tissue of quotation' (Barthes, 1968; Davison, 2011) that draws inspiration from various sources, I show how accounting narratives can be interpreted as institutional texts. I then propose sign conventions that may influence firms' accounting narratives based on a review of previous research, and propose links between sign conventions and legitimation rhetoric.

In the next chapter, *Research method*, I discuss the overall research design, which follows from the theoretical lenses adopted, and describe the method and materials used in the three studies. I conclude the method chapter by discussing the implications of the study's design in relation to its contributions, commenting on the usefulness of the findings. Though the method and the theoretical lenses are introduced in separate chapters for the sake of clarity, the theoretical lenses have certainly influenced the mode of inquiry in terms of how the empirical material was interpreted and analyzed. Equally, the mode of inquiry necessitated the use of compatible theoretical lenses. Therefore, I see Chapter 2 and Chapter 3 as closely

intertwined, both through the conceptual links, and in terms of how the two evolved conjointly as key components of the research design throughout the research process.

The fourth chapter, *Discussion*, is where I analyze the research findings. I reflect on the examples of self-representations in past and present accounting narratives by utilizing topics and concepts from the theoretical lenses. This analysis focuses on the question of how the empirical material can be interpreted as following sign conventions in attempts to establish a unique identity and legitimacy.

Finally, *Chapter 5* contains the conclusions of the dissertation. The findings are summarized in relation to the research purpose, and I provide a ‘terminology toolbox’ consisting of four key concepts that can be used to explain the role and changing style of self-representation in accounting narratives: inclusive view on accounting narratives, “amateriality”³, self-representation, and diagrams. Based on the conclusions, I discuss research and practitioner implications of the findings, and make suggestions for further research.

³ Amaterial (rather than e.g. immaterial) is the term I have chosen to use in this dissertation to describe the opposite of material representations. For more information, see p. 52.

CHAPTER 2

THEORETICAL LENSES

In social sciences, theory can be seen a lens through which to view the world (Lundvall, 1992). Theories are a conceptual frame that increases the understanding of a certain social situation (Llewellyn, 2003). Based on this view, developing a theoretical frame of reference is a matter of describing the concepts used to examine empirical phenomena. This is done not with the final goal of reaching a state of “truth”, but rather to capture a state of conceptual usefulness (see also Chia, 2003) that helps researchers and practitioners understand a selected area of the world around them. Based on this, this study treats concepts as lenses for understanding empirical phenomena. The aim of this chapter is to briefly describe the lenses that I apply to the empirical material, semiotics and institutional theory.

A semiotic perspective

Accounting can be seen as a social and organizational process with an institutional component. This is evident in the way accounting bodies and regulations standardize organizational accounting practice (Burchell *et al.*, 1980), something which also creates institutional pressures for firms to produce certain types of information. The pressure stems from multiple sources, including regulatory bodies, the market and market actors, and the internal environment of the firm. The accounting narrative is the part of the firm’s public disclosure to stakeholders, which uses of text and images to convey information about the company (Clatworthy and Jones, 2003; Rutherford, 2005; Beattie, 2014) by presenting a true and fair view of its standings. Accounting narratives⁴ can be seen as a key format where organizations account for their activities to maintain legitimacy.

⁴ Recall that the more inclusive accounting narrative, as outlined in the introduction, could also include e.g. performances, press-conferences, talks, or websites.

Semiotics is a theory that can act as a theoretical and methodological lens for interpreting signs used in various communication contexts, such as publicly disclosed information (Davison, 2011). Semiotics is a discourse theory of signs and signmaking (Hodge and Kress, 1988; Winther Jørgensen and Phillips, 2000; Kress and van Leeuwen, 2006). As a theory of signs, semiotics has a rich theoretical foundation for exploring the role of visuals as social signs by viewing signs as embedded in a social context, through which they become meaningful to the communicating parties (e.g. Barthes, 1964; Kress and van Leeuwen, 2006; Davison, 2011). The social dimension of semiotics—proposed as an alternate approach to semiotics (see e.g. Hodge and Kress, 1988; van Leeuwen, 2005; Kress and van Leeuwen, 2006)—refers to the acknowledgement that messages are transmitted in a social context, and that meaning is given to signs through the social context.

Although it would be possible to study single acts of communication and how various signs are interpreted in these, it would be difficult (or even counter-effective) to use these to identify absolute meanings of signs. As social semioticians point out, signs become meaningful when used in a communications context. Visual signs serve a communicative purpose in a specific setting, but the system of signs is not definite in the sense that it can be mapped out and described in detail regardless of context. Drawing on Eco's (1979) perspective on semiotics, Richardson and Dowling (1986) propose that signs play a crucial role in conveying legitimacy, and that signs, in turn, serve as a system of legitimating symbols. Introducing the concept of codes as arbitrary but meaningful symbols that reference content, they use the following example:

“Codes are arbitrary pairings of aspects of reality (contents) to symbols (expressions) which are accepted as surrogates for that reality. For example, in the lumber industry the word “Timber!” (an expression) is immediately recognized as meaning that a tree is about to fall (the content) and brings about the response of ensuring that everyone is clear. The pairing between the expression and content in this case is arbitrary but as long as it is shared, it will achieve its purpose. There are, then, two aspects to these codes: (1) the existence of shared pairings of content and expression, and (2) the creation and maintenance of the meaningfulness of an essentially arbitrary code.” (Richardson and Dowling, 1986, p. 101)

Signs become associated with a certain meaning on a general level, which makes these signs more legitimate and firms more inclined to use these signs when trying to represent themselves as legitimate actors, while signs that have not become carriers of legitimation would not be used to appear legitimate. Similarly, Kress and van Leeuwen see the

conventions of use resulting from associations between signs and meaning over time as influential for which signs are chosen by sign-makers. They write:

The effect of convention is to place the pressure of constant limitations of conformity on signmaking; that is, the way signifiers have been combined with signifieds in the history of the culture, acts as a constantly present constraint on [signmaking]. (Kress and van Leeuwen, 2006, p. 12)

The importance of conventions of signmaking, and their influence on which signs are available to sign makers, is a crucial element of how certain representations become commonplace in accounting narratives. In other words, which sign conventions that sign makers draw on depends on which signs are legitimated by the institutional context, meaning that sign conventions influence sign-making. I turn to the question of institutional influences on accounting narratives next.

Institutional influences on accounting narratives

Below, I outline three levels of institutional influences on the accounting narrative (regulatory, market and internal levels), and make links to research related to each level. My aim is to describe types of sign conventions that have been shown to influence the style and content of signs in accounting narratives.

At the regulatory level, a source of influence on the style and content of accounting narratives is the regulatory and legislative environment (Gibbins, Richardson and Waterhouse, 1990; Bartlett and Jones, 1997). Regulations may dictate that disclosure should include performance indicators, income statements, and balance sheets, and which performance indicators should be included as part of the accounting narrative. Studies have investigated the impact of regulation on reporting, and have found that regulation as well as organizational strategies can lead to more disclosure (Bartlett and Jones, 1997), although regulatory requirements may not always lead to particularly comprehensive or qualitative disclosure (Bini, Dainelli and Giunta, 2016). Moreover, local institutional structures may influence the reporting conditions and the resulting disclosure behavior (Vural, 2017).

At the next level, sign conventions that affect accounting narratives include market praxes and trends. Market praxis includes industry norms and reporting fashions (Gibbins, Richardson and Waterhouse, 1990; Tengblad and Ohlsson, 2010; Giunta, Bambagiotti-Alberti and Verrucchi, 2013). For instance, an accounting communication study found that annual reports are typically similar in their use of graphs, which was interpreted as a “normalization effect” on accounting narratives (Beattie, Dhanani and Jones, 2008) whereby

companies strive to use similar reporting styles in an attempt to respond not only to regulatory demands but to the expectations of the market. Investor expectations were named the deciding factor for what was included in the accounting narrative when Campbell & Abdul Rahman asked investor relations employees at Marks & Spencer about their design choices regarding intellectual capital disclosure in the annual report. The employees stated that they would generally “*report on things that the investors want us to report against*” (Campbell and Abdul Rahman, 2010, p. 66), indicating that the market and market actors could influence reporting choices through investor expectations. Another such source of influence is lobby groups. Deegan and Blomquist (2006) found that a code developed by the nature preservation group WWF Australia influenced industry codes and reporting from Australian mining companies, though the authors discuss the question of how much the firms’ activities changed in practice as a result of the new code.

Another example of market praxis guiding the accounting narrative is the study by Rutherford (2005), who found differences between successful, moderately successful and unsuccessful firms (in terms of performance) when it came to the degree of self-reference and positive tones in annual reports. Rutherford found that, “*in the rhetoric of self-reference, loss-making companies resemble the most profitable*” (Rutherford, 2005, p. 371). This suggests that companies with lower performance might adopt the rhetoric of successful firms through associative rhetoric as a way to borrow legitimacy from those firms and thus appear more successful. The praxis adopted by market leaders acts as a guideline for accounting narratives in the whole industry by providing motives for mimicry for less successful firms (cf. DiMaggio and Powell, 1983).

Previous research has also shown that corporate myths, which are common conceptions about organizations, such as the view that technology companies are innovative fast-movers (see David, 2001), constitute a sign convention for representing organizations in accounting texts. Using popular success “myths” in accounting narratives may not result from, or result in, better performance, however. As a study by Staw and Epstein (2000) showed, companies are typically quick to jump on the bandwagon of buzzwords like quality and TQM, but the use of buzzwords was not reflected in better firm performance. This could indicate that normative pressures inspire fashionable followership but few tangible performance-related outcomes in the firms’ accounting narratives.

The third level of influence on accounting narratives is the firm’s internal environment and conditions. These include ownership and network structure (Vural, 2017), strategy (Gibbins, Richardson and Waterhouse, 1990; Ditlevsen, 2012a), and firm size (Cooke, 1989; Hossain,

Perera and Rahman, 1995). Moreover, firm performance has been shown to influence disclosure practice since performance is one of the key topics that firms report on in the annual report, even if they are not very successful in a particular year. As pointed out by Carol David:

Designers must address in the annual report the particular problems of the company, for example, the changes in the company's economic record, legal problems that the company may face, cultural attitudes and demographic changes in audience, and innovations in design materials and style, among other concerns. (David, 2001, p. 204)

In addition to affecting content and arguments, firm performance can also affect the style and scope of content. For example, somber images or minimal information have been found to be more commonly used in times of poor performance (McKinstry, 1996; Leung, Parker and Courtis, 2015), while graphs have been shown to be purposely distorted to convey an overly favorable impression (Courtis, 1997). Furthermore, the firm's identity may influence the choice of what to communicate about. As Ditlevsen (2012a) demonstrates, the intention to convey a certain identity in the annual report can be linked to the type of visuals used. Similarly, websites (Sillince and Brown, 2009), particularly the 'about us' section (Killoran, 2012), have been suggested to be used to convey identity.

Finally, the firm's own past annual report contains signs which are repeated, altered, and discontinued in varying amounts over time in new reports. The company's accounting narratives stem, in part, from the company's history and reporting traditions (Gibbins, Richardson and Waterhouse, 1990). This means that a firm's own previous annual reports form a local source of quotations in the future. The direction of influence could also be the reverse, i.e. that an envisioned future condition of the firm builds legitimacy in the current annual report. This was found to be the case in Justesen and Mouristsen's (2009) case study of a construction company's use of visuals in the annual report and internally, which shows how the past and the future were linked together through 3D images of future constructions juxtaposed with photographs of finished projects in the annual report. The authors describe this as 'borrowing legitimacy' from the firm's own future activities.

Legitimation rhetoric

Having introduced the basis for understanding the relationship between sign conventions and accounting narratives, I will now develop a framework for describing how self-representation and sign conventions converge to enable legitimation rhetorics. Legitimacy is related to a state of congruence between social norms and the firm's adherence to the norms. Legitimacy is present when there is congruence, while tensions requiring legitimation action arise when

this is not the case (Dowling and Pfeffer, 1975). Dowling and Pfeffer (1975) outline three ways that organizations establish or maintain legitimacy. The organization can adapt its actions to prevailing social norms, attempt to change the current perception of legitimacy according to social norms so that they will be aligned with the firm's actions, or they can attempt "...through communication to become identified with symbols, values, or institutions which have a strong base of social legitimacy." (Dowling and Pfeffer, 1975, p. 127). The first and third types are the most likely type of legitimation activity in firms, since it is hard to change social norms (Dowling and Pfeffer, 1975). Therefore, legitimation can often be limited to refer to either "a change in the organization's mission or the use of symbols to identify the organization with legitimate social institutions or practices" (Dowling and Pfeffer, 1975, p. 127).

This latter type of using symbols to associate the firm with legitimating sign conventions is the perspective I focus on in this study, as it is a visual discourse study (see e.g. Phillips, Lawrence and Hardy, 2004). This perspective is often adopted in studies of firms' disclosed social and environmental reporting (Hooghiemstra, 2000), which focus on the relationship (or lack thereof) between social and environmental activities and social and environmental reporting from a legitimation perspective (e.g. Deegan, 2002; Branco and Rodrigues, 2006; Hraskey, 2012; Johansen and Nielsen, 2012; Höllerer *et al.*, 2013). In such a case, the need for legitimacy can be tied to a specific area of activity, e.g. initiatives related to social and environmental responsibility. Contrary to these studies, this dissertation focuses on legitimation rhetoric in general terms, i.e. beyond the area of social and environmental reporting.

Because the deviation from business-as-usual is more easily observable, research on legitimation typically investigate states of tension and firms' responses to this tension. For instance, Suddaby and Greenwood (2005) studied shifting institutional structures during times of different perceptions legitimacy between organizational groups, Erkama and Vaara (2008) studied institutional negotiations during a plant shut-down, and Lok (2010) investigated institutional influences on identity change. Zilber (2006), meanwhile, started with the critical incident of the tech bubble to compare legitimation rhetoric in high-tech firms in Israel, while Lefsrud *et al.* (2016) investigated a case of threats to a company's legitimacy, showing how the firm aimed to provide an alternative account of the situation in order to re-establish legitimacy.

As a slightly contrasting perspective to the examples above, what I will explore in this dissertation are cases of ongoing legitimation rhetoric, not cases where there is necessarily a

perceived gap between social norms and the organization's adherence to those norms. Most firms are not facing legitimacy threats, and generally do adhere to current social norms and values. Therefore, most firms are not engaged in re-legitimation rhetoric, but in legitimation rhetoric. It should be noted that, from this perspective, legitimation is a necessity for all actors to gain access to, and remain part of, an institutional setting, since organizations are not automatically seen as legitimate unless they follow the both the regulatorily and socially constructed accounting conventions (cf. Marchand, 1998). Therefore, in this dissertation, legitimation rhetoric is treated as a central dimension of how organizations maintain their position in the institutional context they operate in.

To conceptualize the type of rhetorical strategies for legitimation that might be encountered in accounting narratives, I adopt a framework of legitimation rhetoric that is used to analyze (visual) legitimation discourse. In a review of the previous research on visual and material dimensions of legitimation at the institutional level, Jones *et al.* (2017) describe and exemplify five rhetorical legitimation strategies from the perspective of visual and material artefacts: authorization, moralization, rationalization, mythopoiesis, and normalization. This framework serves as the basis for the theoretical lens I adopt in this study.

The use of these five types of rhetorical strategies is far from the only types used to explain legitimation rhetoric, however. Several studies employ classical rhetoric (pathos, logos and ethos) to describe legitimation (e.g. Jørgensen and Isaksson, 2010). In addition, New Rhetoric institutional researchers have employed modern types of strategies, such as the study by Suddaby and Greenwood (2005), which identified five types of strategies: ontological, teleological, cosmological, historical and value-based theorization. There are also studies that combine perspectives, e.g. Erkama and Vaara (2008), who used the classical types of rhetoric combined with new types, autopoietic narratives and cosmological strategies. The types in the article by Jones *et al.* (2017) largely match those used in Critical Discourse Analysis, namely authorization, moralization, rationalization and mythopoiesis (van Leeuwen and Wodak, 1999; van Leeuwen, 2007; Vaara and Tienari, 2008), although Jones *et al.* (2017) add normalization as a fifth category. Jones *et al.* (2017) describe normalization as the attempt to draw on a generally accepted perception of what is the accepted norm by using established imagery. However, I see normalization as superfluous as a separate type, as the role of normalization is inherent in the idea of legitimation rhetoric: signs act as legitimation symbols because they are accepted as such, i.e. normalized. I have therefore chosen not to include it as a separate category in my theoretical framework.

I present an overview of the remaining four types of legitimation rhetoric that I will use to explore and explain corporate self-representations in this dissertation in Table 2 below. After the table, I provide examples of the types based on the study by Jones *et al.* (2017) and other studies.

TABLE 2: OUTLINE OF HOW VISUAL RHETORIC SUPPORTS LEGITIMATION STRATEGIES

Rhetoric	Description	Selected examples
Authorization	Invoke visual proximity to authority figures	Photos of politicians or experts to signal external approval of the organization (Jones <i>et al.</i> , 2017)
Moralization	Referencing accepted norms or values	Acts of destroying material artefact perceived as counter to accepted moral values (Jones <i>et al.</i> , 2017)
Rationalization	Reference to utility, means-end, objectivity, and rationality	Using graphs and tables to portray a rational approach to strategy (Ditlevsen, 2012a) Using graphs and charts instead of affective symbols (Jones <i>et al.</i> , 2017)
Mythopoiesis	Legitimation through stories about the organization	Visual storytelling with stereotypes to provide evidence (Hardy and Phillips, 1999) Using shared corporate imagery of globalization to convey the idea of the successful international organization (Preston and Young, 2000)

In van Leeuwen's (2007) view, *authorization* means that the text refers to an authority to establish legitimacy. This authority could be appointed through tradition, custom, or laws, which provide institutional authority to individuals or organizations. One example is to refer to the law to justify a decision, in which case the law, as an accepted authority of right and wrong, would be accepted as a source of legitimacy. From a visual perspective, this could be done by visually referencing authorities, e.g. experts or politicians (Jones *et al.*, 2017) by including photos of them in the accounting narrative⁵.

The second legitimation category included in the table is *moral evaluation*. Moral evaluation is based on a discourse of values (van Leeuwen, 2007). It is a subtle form of legitimation rhetoric as it draws on linkages to accepted and approved of values to establish legitimacy. Examples include values of leadership, scientific objectivity, and values of public interest, which are enacted in text or images (van Leeuwen, 2007). One example would be the set of

⁵ A related example from my examination of visuals in Ericsson's annual reports is that Ericsson's early reports (in the 1950s, 1960s and 1970s) contained photos of well-known persons using the firm's products or visiting the firm's factories, e.g. royalty and politicians. See p. 57 of the dissertation.

photos included in the introduction, where in the second one, the CEO of Ericsson acted as the “face” of the organization as he was holding the phone close to his heart, symbolically indicating an affective relationship with the company’s product, the mobile phone, and what it stood for (e.g. openness, connectivity). Another example is Hrasky’s (2012) study of visual rhetoric in Australian sustainability reports, which indicated that companies that are more sustainable used fewer visuals and instead focused on providing evidence of completed sustainability initiatives. Less sustainable companies, in contrast, were shown to use more visual imagery to construct symbolic legitimacy. These differences were interpreted by Hrasky (2012) as evidence of the less sustainable firms engaging in ‘green-washing’, i.e. legitimation rhetoric in the third sense described by Dowling and Pfeffer (1975).

The third type of legitimation rhetoric, *rationalization*, refers to rational arguments that appeal to logic. For example, reference to utility can highlight the legitimacy of a firm’s actions taken to achieve a goal (van Leeuwen and Wodak, 1999; van Leeuwen, 2007; Jones *et al.*, 2017). Visually, this could entail using diagrams or charts, rather than symbols, as numbers and structures are associated with rationality and rational decision making (Ditlevsen, 2012a; Jones *et al.* 2017). Mouritsen, Larsen and Bukh (2001) propose that formats in accounting narratives are complementarity, arguing that numbers can be used by the firm to “appear rational”, while visualizations complement the numbers by providing a sense of ‘wholeness’.

Finally, mythopoiesis is defined as “*legitimation conveyed through narratives whose outcomes reward legitimate actions and punish non-legitimate actions*” (van Leeuwen, 2007, p. 92). This is achieved through storytelling to justify certain behaviors while warning against others, e.g. creating different characters in a story and affording them different degrees of legitimacy (van Leeuwen and Wodak, 1999). An example of this can be found in the picture essay by Preston and Young (2000), which shows that companies use shared “corporate imagery” of globalization, e.g. globes, planets, maps, multiethnicity and compasses, to visually construct the company as a global enterprise and thereby benefit from the convention that global firms are successful.

Chapter summary

To sum up, I argue that institutional influences can affect the style, content and scope of the accounting narrative. Institutional influences were linked to sign conventions on three levels. The accounting narratives are linked to internal conditions such as ownership structure, past reporting choices, size, and performance, but the accounting narrative is also subject pressures to conform to conventions at the market and regulatory levels of influence.

Legitimation rhetoric is how this study operationalizes the idea of sign conventions at play. I argue that the sign conventions afford different types of legitimation, and that links can be made between sign conventions at different levels and the most likely strategies for legitimation rhetoric. Sign conventions reflect which sources of legitimation that self-representations are more likely to refer to, and with which type of legitimation rhetoric. For example, adhering to market conventions could be linked to authorization rhetoric, whereby copying the practice of more successful firms is a way for firms to appear more legitimate. A summary of the levels of sign conventions, including proposed links to legitimation rhetoric, is presented in Table 3 below.

TABLE 3: LEVELS OF SIGN CONVENTIONS AND LEGITIMATION RHETORIC IN ACCOUNTING NARRATIVES

Level of influence	Sign convention	Sources of conventions	Possible links to legitimation rhetoric
Regulatory	Legislation	Legal requirements	<i>Authorization</i> through appeals to legal authority, from following regulatory requirements
	Guidelines	Regulatory guidelines	
	Regulations	Local institutional context	
Market	Market praxis	Investor expectations Mimicry of profitable firms	<i>Mythopoesis</i> by using shared corporate imagery
	Market trends	Buzzwords, trendy concepts, e.g. quality or sustainability	<i>Authorization</i> through appeals to successful firms, or known concepts
Internal	Firm's own annual reports	Past annual reports; established expectations with intended audience	<i>Mythopoesis</i> by creating own imagery of the firm
	Internal factors	Ownership structure and size	<i>Moral values</i> (referring to own abilities and skills)
		Strategy and identity Performance	<i>Rationalization</i> (showing the means to achieve end)

Although the examples of sign conventions presented in this chapter come mainly from research on annual reports, the framework is intended to be applicable to other formats containing accounting narratives as well, e.g. websites, virtual annual reports, and performances. While regulatory requirements may not pose restrictions on the form and content of websites to the same extent as annual reports, firms do adhere to internal and market conventions when disclosing information on their website. In some cases, the information may even be similar across channels, as was found to be the case in a study of CSR reporting by Portuguese firms by Branco and Rodrigues (2006). They found that social responsibility disclosure was identical on websites and in annual reports. Indeed, one of two key roles of the 'about us' section of firm's websites was shown to be to convey the

company's identity in order to build credibility (Killoran, 2012), which highlights that websites, similar to annual reports, play an important role as a site for self-representation. This suggests that accounting narratives and self-representation can be presented in different channels, and the framework is intended to be independent of channel and format choice.

CHAPTER 3

RESEARCH METHOD

The purpose of this chapter is to give an overview of the overall research design of the dissertation, and how I aim to tie the three papers together given that they use different methods to study different patterns of self-representations in accounting narratives. I do this by first discussing the research design, the methods and materials, and the complementarity of the three types of patterns studied. I then reflect on the design and methods in relation to the contributions of the study.

Research design

As the main feature of its research design, this dissertation uses semiotics as a theoretical and methodological lens to conceptualize self-representations in accounting narratives. The fundamental ideas of social semiotics are outlined in the previous chapter. The object of study is the socially constructed self-representations and interactions in various media and in different formats, where semiotics is chosen as the lens through which to view these interactions. By providing analytical constructs and frameworks to describe the studied material, as well as the underlying epistemology of viewing visuals as embedded in a specific communication context, social semiotics also serves as a mode of inquiry. That is, I use concepts from visual social semiotics as guidelines for how to study signs based on a specific set of assumptions of how such carriers of information work.

In terms of the research procedure, the three papers upon which the dissertation is based were developed sequentially where each paper's findings contributed to the research questions of the next paper. The three papers use different methods and analysis procedures (visual taxonomy, visual content analysis, and interviews and text analysis) to explore self-representation in the empirical context of accounting narratives. The papers also use different numbers of cases: Paper 1 includes 242 business model diagrams as examples of self-representation, while Paper 2 is based on a single-case account of visuals use over a period

of 70 years. In addition, the three papers adopt different temporal perspectives, with Papers 1 and 3 focusing on the present time while Paper 2 uses a past-to-present perspective to explore changes to self-representation over time. I describe the methods and materials in more detail below.

Paper 1 was sensitized by semiotic thinking and followed the stages of semiotic studies as outlined by van Leeuwen (2005). Once an initial observation is made that sparks the interest in the use of a particular communicative resource such as diagrams, a semiotic study can be used to find out more about this resource and its role in a particular context. The main activities include the stages collecting and cataloging semiotic resources, investigating how the resources are used in a specific setting, and contributing to the discovery of new resources and improved uses of existing semiotic resources (van Leeuwen, 2005). In Paper 1, I followed these stages of research in order to answer questions about how business model diagrams were used by practitioners. Guided by the initial observation that diagrams were frequently used by practitioners, I began to collect examples of this semiotic resource to investigate how they were used in accounting narratives.

The materials used in Paper 1 were primarily collected from companies' websites or annual reports published online. The choice of websites and online annual reports as the source locations for business model diagrams was based on Augustsson's (2004) view that a website is a channel used by firms to communicate with external stakeholders. Websites have also been described as a format that can be used as a site for self-representation (Killoran, 2012), e.g. by establishing the company's credibility through ethos-based rhetoric (Jørgensen and Isaksson, 2010). In addition, by collecting resources that could be seen as "naturally occurring", the study provides an understanding of the ongoing praxis of diagram use in companies' accounting narratives without the researcher's influence on the data; this has been described as one benefit of discourse studies (Börjesson and Palmblad, 2007), and was considered particularly important for this study, as the aim is to investigate how companies use images in a specific context.

In line with the stages of the semiotic process outlined above, the collected diagrams were then catalogued into a composite file and analyzed. Coding was guided by previous visual research to label and group the diagrams (e.g. Tufte, 1990; Lohse *et al.*, 1994; Tversky, 1997; Blackwell and Engelhardt, 2002; Lengler and Eppler, 2007) to provide an understanding of the praxis of using diagrams to communicate. This ensured that the interpretations were aligned with previous visual research in other fields, which added interpretive validity to my study, and provided comparability between my findings and other diagram studies since the

labels were similar. The resulting collection of diagrams adds an understanding of the practice of using diagrams as self-representations. The collection was also used as the basis for 'Using self representations' in Chapter 4 of this dissertation, where I attempt to complete the third stage of the semiotic process by proposing new uses of the semiotic resource of business model diagrams.

For Paper 2, I used a single-case approach to link visuals use to a specific company context. I chose the material annual reports to do this, and used the annual reports published by the Swedish telecom company Ericsson for two reasons. For one, the company has been a global enterprise for over a century with operations and markets spanning several continents, and the company has undergone a shift from focusing on products and manufacturing to having a service-based value chain (Davies, 2004), and from analog to digital products (Ehrenkrona, 1998). This means that the company's history reflects many of the trends observable in society today, such as globalization, servitization and digitization (Bremann and Felländer, 2014; D'Souza *et al.*, 2015; Cöster and Westelius, 2016). Secondly, Ericsson has published its annual reports dating back to 1901 along with employee magazines and product catalogs in an online archive (ericssonhistory.com). This could be interpreted as the company treating its historical annual reports as determinants of its identity in the present day, i.e. they are key documents for self-representation.

To analyze the material, I used visual content analysis as the research method. This allowed me to compare how the organization had been visualized in the annual reports over time. The choice of content analysis as a method was due to the intention to investigate diagram use and to generate an understanding of communication patterns. Numerical representations of data have been proposed to be useful for understanding general patterns (Miles, Huberman and Saldaña, 2014). However, content analysis has also been criticized for not generating relevant links to the context (Prior, 2003) and for lacking a useful theoretical foundation (Bell and Davison, 2013). To try to mitigate these drawbacks, I adopted a coding framework inspired by concepts from visual semiotics which allowed the paper to examine cases of visuals use from a theoretically grounded perspective. For example, I coded diagrams in terms of whether they represented a concrete or conceptual reality as an indication of whether the referent that was represented in the annual reports was based on a material or immaterial component.

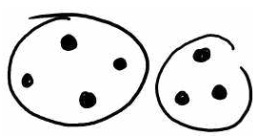
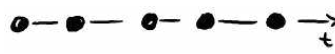
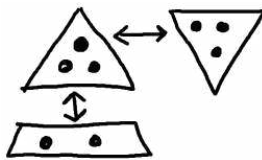
The approach in Paper 3 was to use a single-case design to examine conceptualizations of the business models in a single company. In addition to examining publicly disclosed information similar to the materials used in Paper 1 and Paper 2, I also used interviews with

managers to capture the company’s perceptions of their business model (i.e. how the idea was created and what role it played in the organization). The interviews were semi-formal, recorded and carefully transcribed after each session, leaving me with a number of written examples of how the managers had described the new venture’s business model. The data was analyzed in terms of how the term ‘business model’ was described and thus the idea of the business model in the company was constructed. The decision not to impose a theoretical conceptualization of business models onto the descriptions made by the managers was a way to reduce my influence on how the business model was perceived by the company’s managers. This was important in this particular study, as the aim was to find examples of how a well-used label from both research, popular media, consulting firms, and reporting fashion (“business model”, Swedish: affärsmodell) was adopted in a specific context. It was therefore important not to impose a layer of conceptualization stemming from outside the organization, and the use of practitioner descriptions followed by thematic grouping of the material afterwards was a way to achieve this.

Patterns of self-representations investigated

As a result of using different methods for data collection and analysis, different number of cases, and different time frames, the three papers could be described as investigating different patterns of self-representation in accounting narratives. The three studies contribute with different types of self-representation patterns to the dissertation’s discussion. I present an overview of the methods and patterns of self-representations that are used in the three studies in Table 4.

TABLE 4: OVERVIEW OF RESEARCH MEHODS AND PATTERNS OF SELF-REPRESENTATION STUDIED

	Paper 1	Paper 2	Paper 3
Method	Visual taxonomy	Visual content analysis	Interviews, text analysis
Cases	242	1	1
Analysis	Cross-case comparison	Longitudinal analysis	Single-case study
Perspective	External	External	Internal and external
Time-frame	Present	Past → Present	Present
Pattern investigated			

The patterns of self-representation investigated in Paper 1 could be described as grouping and comparison. The main approach in this paper was to look for patterns in how different firms (represented by black dots in Table 4) visualized their business model, and to find similarities between firms (the circles grouping similar black dots) in the way this was done. This was done first by determining similarities on the visual and conceptual level in a typology, and then by comparing characteristics of each pattern with regard to their prevalence in certain industries. Thus, the term ‘patterns of self-representation’ in Paper 1 refers to which similarities and differences can be found between firms based on a large sample of self-representations.

The second type of pattern investigated is the temporal patterns in Paper 2. In this paper, the data points (black dots in Table 4) are the yearly annual reports published by Ericsson. The search for patterns in the study concerned determining which types of self-representations were used at different points in time. Patterns were identified based on how self-representations differed over time, and were explained using both internal and external contextual factors.

Finally, in Paper 3, patterns emerged as I compared the pre-visual self-representation made by a new venture in different ‘communication arenas’ (that is, to internal or external audiences, and on different organizational levels). The black dots in Table 4 symbolize different conceptualizations of the business model. Pattern in this case refers to similarities and differences between self-representations depending on whether they were used internally or externally, and on which organizational level.

The differences in context simultaneously limit the comparability at the detailed empirical level, and provide a richer picture of self-representation patterns from more diverse perspectives than would be possible if I had investigated a single type of context. Based on this, the research design could be referred to as what Alvesson and Gabriel (2013) call ‘nomadic’ in the sense that I have done different things in different ways throughout the research process: I have written in different styles, used different frames of reference, and addressed different audiences. The nomadic trajectory has allowed me to circle around the research problem of self-representation in accounting narratives in a roundabout fashion, to the point where I have a collection of empirical patterns. By viewing these through the lenses of semiotics and legitimation rhetoric, the papers are combined into a meaningful whole in relation to the research purpose.

While the nomadic approach (Alvesson and Gabriel, 2013) could be problematic in the sense that it implies the lack of a ‘grand plan’ to ensure cohesion and direct comparability between

cases, one benefit is that it has allowed me to use several different approaches for examining accounting narratives from the proposed ‘inclusive view’. Thus, the design has provided many opportunities for learning, which is a key aspect at this stage of my research career. Another challenge with the nomadic approach is that the result may appear fragmented since the studies investigated different patterns of self-representation with different approaches. Therefore, I briefly discuss the complementarity of the three studies as empirical examples of self-representation next.

The conclusions about diagrams in Paper 1 and Paper 2 can be seen as complementary as both papers point to a growing importance and prevalence of diagrams in accounting narratives, though the sample size and time frames differ. Paper 1 indicates this through the high number of diagrams in the study, while Paper 2 does so through a historical examination of visuals use. Thus, the studies are complementary in that they point to similar trends with regard to diagram use in accounting narratives, even though the findings are not used to ‘confirm’ the findings from the other study.

Another type of complementarity between the papers is that the findings describe the use of the same type of format for self-representation. In this way, Paper 3 could be considered comparable to Paper 1 since they both contain empirical examples of business models. Paper 1’s empirical material consists of business model visualizations published in annual reports and on websites, whereas Paper 3’s conclusions refer to how the business model is described and communicated differently depending on the communication context and purpose. The material from Paper 3 complements the external and visual perspective on business models in Paper 1 by providing a more in-depth explanation for how accounts differ depending on whether they are used internally or externally.

Additionally, Paper 3 outlines potential difficulties that emerge as a company tries to create and communicate as a ‘single voice of the company’ to external audiences. Paper 3 shows that the idea of the ‘corporate self’ as the straight-forward author of companies’ self-representations (a view adopted in Paper 1 and Paper 2) may not be so straight-forward when taking the perspective of creating the self-representations into account. As Paper 3 shows, self-representations can be the result of internal discussions of both strategic and operative aspects taking place prior to the formulation of a ‘single voice’ that is used for external communication.

Reflections on the methods used in relation to the contributions

An argument raised against visual semiotics as an approach to understand signs is that interpretations can be arbitrary. For instance, Charles Forceville's (1999) review of the 1996 edition of Kress and van Leeuwen's *The Grammar of Visual Design* outlines two key issues in relation to this. First, the intention to explain the "grammar" of visuals evident in the title implies that the book contains a set of general rules, but Forceville (1999) argues that the book fails to provide a solid theoretical foundation for these rules⁶. Second, Forceville (1999) believes that Kress and van Leeuwen favor oppositions and classification as analytical tools, but the way they execute classification does not appear to be exhaustive, nor is it very well explained how they arrive at the classification schemes and whether they can be said to be general rules or mere suppositions (Forceville, 1999). In this dissertation, I handle the challenges of interpreting self-representations and visuals in the following ways.

For one, I link the role of images as a communicative resource to the specific context of accounting narratives by using concepts from visual semiotics as a lens for describing those images. In developing principles for interpretive research, Klein and Meyers (1999) propose that the researcher adopt the principle of suspicion, which involves sensitivity to biases and distortions in the narratives investigated. Though this is particularly true for verbal narratives, this principle can also be adopted for visual methods. For instance, I developed a frame of reference for describing how images convey meaning based on both semiotics (Barthes, 1957, 1964, 1968, Kress and van Leeuwen, 2002, 2006; van Leeuwen, 2005) and other visual fields and subfields, e.g. cognitive psychology (Larkin and Simon, 1987; Tversky, 1997, 2011; Heiser and Tversky, 2006) and information visualization (Tufte, 1990; Lohse *et al.*, 1994; Eppler, 2008; Lima, 2011). This frame of reference served as a sensitizing device when describing and analyzing visuals. I used the visual frame of reference as a way to link the study's analyses to established norms in visual fields, which reduced the risk of developing explanations based on my intuition and possibly idiosyncratic biases alone.

Second, I strive to link visuals to their context of use, since the context matters for visuals to become meaningful communication resources. By following the principle of contextualization (Klein and Myers, 1999), I link the context to the use of images on the empirical level. For example, in Paper 2 I discuss the use of visuals in Ericsson's annual

⁶ Forceville's (1999) suggestion to resolve this is to draw more on developments in fields like cognitive psychology, so as to provide clearer links between human cognition and how images are typically interpreted. This is one reason why I sometimes draw on studies from cognitive psychology to explain how audiences typically respond to various types of visuals.

reports in relation to internal and external factors that could have affected the style and content of the annual reports, in order to make sense of the type of visuals that were used under certain circumstances. It is through the representability of the case as an example of a global telecom company struggling with innovation in a highly competitive market that the conclusions can be linked to more general trends in society, such as globalization and digitalization.

As for the importance of context, it should be noted that Kress and van Leeuwen (2006) are aware of the fluidity of meaning; their attempt to describe a grammar of visual meaning is intended to be neither absolute nor comprehensive. Rather, they strive to discuss key teaching examples and develop a terminology for describing the visual dimension in Western culture. Social semiotics is, first and foremost, an approach to enquiry (van Leeuwen, 2005) about how signs become meaningful in particular contexts. For this reason, I treat visual semiotics as per Kress and van Leeuwen as a proposed approach for *how* to study images rather than *what*, specifically, visuals mean on a general level. I limit the exploration of *what* images could mean to the context of accounting narratives, and the empirical patterns that I uncover.

As I exemplify above, the patterns of self-representation in the three studies were seen to be mainly complementary and not contradictory in the context of self-representations in accounting narratives. Thus, in this dissertation, the range of methods and materials employed add depth to the understanding of the role of visual methods for examining organizations since they focus on different aspects in different ways. This has produced not only interesting empirical examples, but could also serve as a methodological contribution for my own future research as well as other visual researchers since I provide examples of how to explore accounting narratives from an inclusive perspective. By highlighting the importance of an interdisciplinary agenda for studying visuals in management research, Renate Meyer and her colleagues make the case that interdisciplinary research is a way forward:

We propose an interdisciplinary agenda and outline how organization and management research could be inspired by insights from the domains of linguistics and semiotics, as well as from studies on spirituality and religion. (Meyer *et al.*, 2013, p. 491)

This study responds to this proposal by combining theories from semiotics, institutional theory, and business models, and using empirical data from several organizational contexts (multinational organizations, new ventures, and a cross-section of firms) with several methods (visual content analysis, visual taxonomy, and narrative analysis). Thereby, I show how different types of visualizations are used in accounting narratives, and also provide

examples of how organizations are visually constructed in corporate disclosure. In this way, the study both develops an idea of different types of self-representation practice by firms, and provides examples of methods that can be used from a visual perspective, which is an area within management studies as a whole that is under-developed (Bell and Davison, 2013; Meyer *et al.*, 2013).

As I point out in the chapter about theoretical lenses, my aim with using visual self-representations as the main empirical material is not to capture the creators' intentions, but to indicate patterns in image use that transcend the motivated choices of signs made by individuals (the sign conventions). One drawback with this aim is that it runs the risk of marginalizing questions of authorship of the accounting narrative, which has been proposed as an important, albeit difficult, role to conceptualize in the production of accounting narratives (Davison, 2011; Beattie, 2014). Indeed, the production of messages has been proposed by Tregidga (2012) to be a topic worthy of further exploration in order to fully understand the context of report production, and, more specifically, the "*construction of the corporate message and into the intended and/or avowedly unintended messages and accounts contained within*" (Tregidga, Milne and Lehman, 2012, p. 227).

Though this study recognizes that an accounting narrative as a sign is the result of numerous processes in the organization, carried out by individuals within a given structure, its main view is that the organization acts as a unified actor with agency to convey the organization's standings and identity as a 'single voice'. This makes 'motivation' and 'intentions' abstract rather than concrete terms, which could underplay the role of human agency and multiple perspectives in organizational identity. However, as I focus on signs in relation to contexts, and sign conventions, and not the role of communication professionals, I found this trade-off justifiable in relation to the purpose of the dissertation. What I hope to show is that sign choice goes beyond individuals, as organizations that communicate are bound by (unwritten or undrawn) rules that either grant or reduce their legitimacy and therefore their ability to operate in an industry. The theoretical contribution in this study lies in exploring the signs and sign conventions that guide self-representation and to frame these in terms of legitimation rhetoric. Therefore, the question of motivations and intentions of individual communicating firms, while important and interesting as a perspective on self-representations, remains unexplored since it does not directly relate to the research purpose.

CHAPTER 4

SUMMARIZING DISCUSSION

In this chapter, I revisit the three papers in order to analyze and conceptualize self-representations in accounting narratives according to the themes outlined in ‘Study focus and aim’ in Chapter 1. These include in what sense organizations’ self-representations represent the organizational self, how the role of self-representational visuals has evolved over time, and how the visual (and mental, ‘pre-visual’) self-representations are used in accounting contexts in relation to legitimation rhetoric.

How self-representations represent organizations

I argued in the introduction that what I have studied in the three papers are examples of self-representations. But in what sense? Are photographs that are printed in annual reports self-representations? Are business models self-representations? It is not obvious that this would be the case. For this assumption to hold, it is necessary to first develop an understanding of what is meant by the organizational self, and how this self can be represented. Is there, in fact, such a thing as the organizational self? Not all researchers would agree that this is a fruitful analogy for describing organizations. However, there are strands of research that find the metaphor of personhood a useful lens for interpreting organizations and their activities. These researches argue that it is possible to think of organizations as persons with agency to act, think and behave (Czarniawska-Joerges, 1994; Gioia, Schultz and Corley, 2002; Hardack, 2014).

In the context of publicly disclosed information, operationalizing this view involves seeing the produced texts and narratives as an organization’s ongoing biography, similar to how persons think, write and communicate about their lives according to institutional structures (cf. Berger and Luckmann, 1966; Giddens, 1991). Based on this, it is possible to interpret visuals as self-representations as long as they convey the thoughts (e.g. strategies, intentions), identity (e.g. the firm’s characteristics, preferred symbolism), or current standings (e.g.

balance sheet, ongoing activities, key partners) of an organization. The lens of the personhood metaphor is what allows the photos of Svedberg in Figure 1 on page 14 to be interpreted as expressions of Ericsson's identity. The qualities assigned to the CEO, the 'face' of the company, become qualities associated with the organization as a whole, since Svedberg is a member of the organization⁷. In other words, photographs in annual reports can be interpreted as self-representations by applying the metaphor of corporate personhood.

As for business models, they are often described as the causal logic of how the firm is configured, internally and externally, to deliver on a value proposition to customers. The business model thus explains the central functions for creating and delivering value. As the illustration of its central functions and outcomes, how is the business model *not* a firm's self-representation? Interestingly, the business model was only rarely interpreted as a model in the concrete sense in the collection of business model diagrams; only eight firms represented their business models as a map of the key locations, activities and outputs, while most firms used more conceptual representations with shapes and symbols to represent the idea of the business model. In other words, business model diagrams can serve as a translation of a physical terrain (i.e. how the organization is physically organized to create value), or a conceptual translation of an idea about the organization (i.e. the idea of how it creates value). Both could be seen as self-representations, though as two different ways of translating the firm's activities and beliefs: one material, one immaterial. From now on, I will use these opposing terms to describe ways to reflect the organizational self in accounting narratives. However, I use the paired terms material and *a*-material self-representation. The word *a*-material is used rather than *im*-material since 'immaterial' might connote lack of importance or significance. *A*material is the opposite of material self-representations, and as such show something which is non-tangible rather than tangible (but not insignificant) and which is abstractly rather than concretely related to the accounting reality (but not unimportant).

Another distinction that can be made in terms of how self-representations represent the organizational self is when it comes to internal and external self-representations. Although it has been suggested that the delineation of internal and external communication channels overstates the difference between the two audiences (Christensen and Askegaard, 2001),

⁷ Rhetorically, the association between the CEO and the organization can be explained by the figure of speech metonymy (to describe one entity in terms of another, related entity). Specifically, CEO portraits could reflect the metonymical figures MEMBER FOR THE ORGANIZATION, or CONTROLLED FOR THE CONTROLLED (Lakoff and Johnson, 2003), whereby a representative or controlling member represents not only him or herself, but the entire organization that he or she is a member, or controller, of.

Paper 3 highlights key differences in communicated and mental images⁸ of a business model, namely that the message may differ depending on who is communicating, the audience, and the purpose and use of the communication. The new venture analyzed in Paper 3 simultaneously treated the business model as an ongoing project that was subject to change (this was described as trying to *become* profitable in the future), and as a current self-representation in external channels, such as the annual report (the means for *being* profitable at present).

When it was used, the business model label would form a basis of the firm's self-representation, though the label was adopted only in some communication channels. For example, the business model was not used to communicate with customers, probably because customer relationships could be expected to hinge on product quality rather than the firm's legitimacy as a new venture. In contrast, external investors might need evidence of legitimacy, such as a strong reputation, in order to invest in a new venture (cf. Vendelø, 1998), which the use of the business model provided by offering comparisons to other successful firms. Paper 3 thus exemplifies that self-representations can be used both internally and externally, and that they do not necessarily match in terms of content, audience, or the time perspective (being versus becoming). External communication seems to be more closely tied to adherence to sign conventions through the use of rhetorical legitimation strategies, though primarily in channels aimed at investors and regulators. Legitimizing intentions were not as clear at the internal level of self-representation, where the business model seemed to serve more of a dynamic role as something that was believed to be relevant, but which was intended to change over time.

The external representations of the self in Paper 3 were similar to the self-representations in Papers 1 and 2. These self-representations were not only illustrative of some or several dimensions of the organization's values, identity, or activities, but this was typically done by including symbols and annotations with positive connotations. For example, the business model diagrams typically present the firm in a positive light through the use of *selectivity* and the *graphic design*. By selectivity, I mean that firms only included those dimensions that could be seen as positive in the diagrams. In the case of map diagrams, for example, selectivity could entail showing only positive outcomes of oil production, or including happy customers but leaving out environmental impact at the end of the process (see Figure 6 in

⁸ The perspective of mental images is similar to the perspective that business models are cognitive schemas in the minds of organizations or researchers, which is one of the three research perspectives adopted in business model research according to a review by Massa, Tucci and Afuah (2017).

Paper 1). In Ericsson's case, the reports describing poor performance contained fewer visuals instead of the alternative, to use visuals with negative connotations to illustrate the performance, which is another type of selectivity. By graphic design, I mean that the choice of elements reflect the visual identity of the firm, for example through the use of 'positive' colors (Kress and van Leeuwen, 2002), e.g. strong red or bright orange rather than more realistic colors (as in Figure 6 in Paper 1). Due to the need to simplify the referent in diagrammatic representations (Kress and van Leeuwen, 2006), the act leaving in and leaving out elements, or choosing the style and colors, need not necessarily be a case of purposeful 'impression management'. Rather, it could be a case of firms striving to represent its best features, similar to how individuals may choose to publish self-portraits that reflect their personality in a positive way.

As indicated by the above discussion, the papers collectively indicate that in external self-representations, the visual self is shrouded in positivity. One reason could be that firms that communicate to maintain legitimacy, rather than to respond to legitimacy threats (see 'Legitimation rhetoric' in Chapter 2), likely do not stand to improve their legitimacy (legitimation rationale) or create positive differentiation from competitors (identity rationale) by using visuals to connote weaknesses in its accounting narratives. The difference in self-representational tones observed in Paper 3—externally positive and internally reflexive—are in line with this argument. I come back to this in 'Images as rhetorical devices' in this chapter, where I discuss how the absence of problematization of the organization's activities, performance, and identity can be linked to legitimation rhetoric.

Presentations or representations?

The characteristics 'single-voiced' and 'predominantly positive' of the studied external self-representations could suggest that the external accounts are made with persuasiveness of presentation, rather than accuracy of representation, in mind. While the term presentation may connote that information has a persuasive (and possibly untrue) component, the term representation implies that the representation bears a material or amaterial likeness to a referent. The prior discussions do imply a potentially presentational component to self-representations in accounting narratives. In contrast to this, the empirical material from Ericsson in Paper 2 suggests that self-representation, even in externally published disclosures, are not merely a matter of presenting information, but that there is a clear representational component in the use of imagery. Similar to how Justesen et al. (2009, p. 988) argue that visuals in annual reports are more than "empty window dressing" that can serve as "devices that help enact the firm's activities in different ways", the empirical

material in Paper 2 indicates a clear—but changing—relationship between visuals as representations and their organizational referents.

The extensive time period (seven decades) examined in Paper 2 allowed me to trace historical patterns of visuals use over time. In my analysis, I found recurring visual imagery that had been used since the earliest visual reports: symbols to connote Ericsson as a global actor, symbols to indicate Ericsson as a provider of communication solutions, and Ericsson as an innovative company. These themes are consistent with Lundström (2006), who shows that Ericsson frequently draws on its long history in modern-day self-representations by stressing the company's role as a global provider of technology with a tradition of innovation. An example of this is the quote by then CEO Carl-Henric Svanberg, in which he used history to establish the identity of a global organization in 2004 (cited in Lundström, 2006):

We knew that our competitive edge has historically been our global presence. In 1881 we began our business in Russia, in 1892 we sold telecommunications equipment in Shanghai and Calcutta, and in 1903 we began manufacturing in Mexico. Today we are in over 140 countries. We haven't changed this.

This facet of Ericsson's identity is observable throughout the annual reports, especially early ones. One example is the front page of the 1959 report (Figure 2), which shows a globe suspended against the backdrop of outer space. The globe is encircled by cables resembling communication cables, which originate in Sweden. This might signify the company's global presence and ability to provide connectivity services world-wide. Thus, the cover image incorporates symbols of globalization (the globe) and of communication (the connecting lines). In line with this, the theme of global communication is repeated visually throughout the report. For example, page 2 contains photographs of the US president and Swedish king making phone calls; this symbolizes globalized connectivity—and also provides an appeal to authority figures that help to legitimate the company's products by using them.

Ericsson's identity as a global actor is repeatedly conveyed through its self-representations in the annual reports. I interpret this as evidence of a close relationship between the organization's identity (as a referent for the visualizations) and the self-representation. Contrary to research describing accounting narratives as normalized PR tools (McKinstry, 1996; David, 2001; Beattie, Dhanani and Jones, 2008) that act as a response to the market's requirements (Campbell and Abdul Rahman, 2010; Giunta, Bambagiotti-Alberti and Verrucchi, 2013), the observed continuity in the use of imagery could be explained as recurring 'identity motifs' in the annual reports. In this case, the main sign convention was

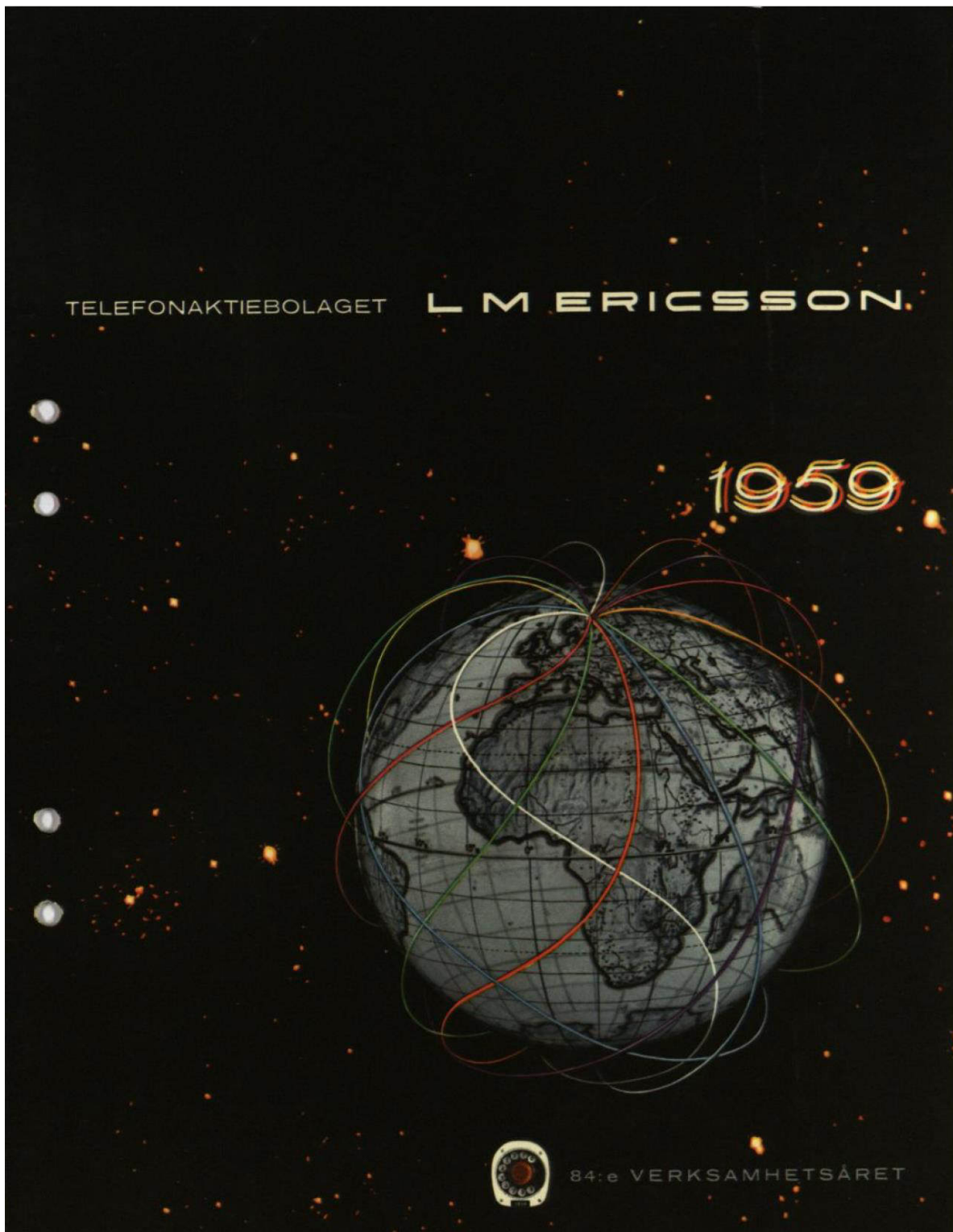


FIGURE 2: FRONT PAGE OF ERICSSON'S 1959 ANNUAL REPORT. FROM ERICSSON'S ARCHIVE WITH THE CENTRE FOR BUSINESS HISTORY, WWW.NARINGSLIVSHISTORIA.SE. USED WITH PERMISSION.

Ericsson's own annual reports from previous years, where the imagery was established and normalized.

Over time, however, Ericsson seems to have adjusted its already existing use of visual symbols from drawing on its own annual reports to being influenced by market conventions. Although the referent was still the company's identity, the mode of visual self-representation changed from being based material to being based on amaterial dimensions using generic imagery more than company-specific signs. The shift in how symbolism was used is suggested in Paper 2 to have occurred around the 1990s. In Paper 2, I describe this change in how Ericsson was represented through visuals in the following way:

While early front pages showed factories (1950s), products (1960s), employees (1950s-1970s), and customers (1980s), these as-is depictions were supplanted by generic examples of people communicating (1990s-2000s) and the company vision of "the networked society" (2010s) on the front page. This indicates that reports increasingly reflect an abstract or imagined referent, rather than the concrete, material organization, through a symbolic relationship between visual and referent. (Paper 2, see p. 133)

Rather than using visuals with clear links to the company's business as was common in earlier reports, Ericsson's reports after the 1990s contained more generic symbols of globalization and innovation. This indicates a shift in the source of imagery from the own organization to shared myths about what makes business successful; i.e. the source of sign conventions shifted from the internal to the market level. Specifically, it shifted to market trends. A choice of symbolism in the annual report based on market trends would represent an attempt to derive legitimacy from appearing to adhere to conventions reflecting shared corporate myths (cf. David, 2001). The source of sign conventions thus seems to have changed: whereas early depictions of the organization in Ericsson's annual reports reflected a material dimension of its activities, this link became less pronounced in later reports. Later reporting practice favored more amaterial representations that drew on symbolic relationships between the organization and its self-representations in accounting narratives.

Self-representations as rhetorical devices

The patterns investigated in the three papers serve as examples of how visual and pre-visual self-representations can be used as part of a firm's legitimation rhetoric. This relates to the question of how self-representations can act as devices in accounting narratives to support firms' legitimation rationale, i.e. of maintaining legitimacy as actors in the context where they operate. I address this question by discussing the empirical examples from the perspective of sign convention and legitimation rhetoric introduced in Chapter 2.

Paper 3 provides one example of legitimation rhetoric related to the self-representation of business models. The new venture in Paper 3 used an archetypal label that was similar to successful business models in other industries. This was done by taking the non-detailed, superficial information of the original idea and translating it into a local context (cf. Zilber, 2006). A conventional label was attached to the new venture's business model by using the words "hardware and software" to describe the firm internally and in publicly disclosed information. This shows how a business model can act as a legitimating device for the firm, whereby the own business model is constructed as similar to (or even a replica of) another successful model. Because of the reported success of the 'original', it serves as an authority (*authorization*), an accepted way of doing business that is approved by external stakeholders such as investors and regulators.

It is known from previous research that business models may be included in firms' public disclosure as a response to requirements (for the UK, see FRC, 2014; Bini, Dainelli and Giunta, 2016), or as a way to adhere to reporting standards set by stakeholder organizations such as the integrated reporting initiative (Michalak *et al.*, 2017). Studies of business model disclosure suggest a 'fashion effect' in how the business model is described in annual reports (Giunta, Bambagiotti-Alberti and Verrucchi, 2013; Bini, Dainelli and Giunta, 2016; Melloni, Stacchezzini and Lai, 2016). Based on the literature, this could be explained as a firm's response to the market's expectations that accounting narratives should cover certain topics (cf. Campbell and Abdul Rahman, 2010), and firms' desire to follow market trends by incorporating buzzwords in order to manage impressions. A certain degree of visual similarity between firms could thus be expected in self-representations. This was indeed found to be the case for business model diagrams (and, as I describe above, visual symbolism in annual reports), as they used similar components and followed one of four basic visualization logics. However, as Paper 1 also shows, firms' business model visualizations were graphically different, with no two diagrams being identical in terms of the composition or graphic design even when the fundamental value creation logic was the same. Thus, companies would use uniquely designed business model diagrams to show how the company generates value, thus providing evidence that the company not only has a business model (conforming to the market norm) but also that it can generate value (rationalization of the means and end) in way that were visually distinctive and conceptually specific for the company. This is in line with the identity rationale for self-representation, i.e. an attempt at differentiation through the use of visuals. In other words, the collection of business model diagrams reflects a tension between the fundamental similarities in that diagrams are used

and follow similar basic logics, and individual design choices that offer visual differentiation from other firms.

Another observation about the diagrams is that they typically did not incorporate, or link to, numerical information as evidence or exemplifications of how the business model worked. That is, the diagrams did not clarify the link between the accounting reality (the nature and outcome of the firm's activities) and the business model (the firm's way of organizing those activities), which has been suggested to be a benefit of using business models as a holistic reporting framework (Bukh, 2003; ICAEW, 2010; Beattie and Smith, 2013; Nielsen and Roslender, 2015). The observed use of business model diagrams in accounting narratives in Paper 1 deviates from the benefits of business model reporting as proposed by regulators and researchers, which indicates that disclosure of business models serves other purposes than adhering to sign conventions at the regulatory level.

Paper 2 may help to explain why the diagrams are conceptually similar, i.e. adhering to one of four basic logics. I suggest above that the organization as a referent (its identity, behavior, activities etc) for the accounting narrative is increasingly through an amaterial (non-tangible, abstract, and more symbolic than specific) relationship between referent and representation. Amaterial visualizations reference ideas rather than things. Symbolic accounts are one way to express non-tangible ideas; for example, rhetorical devices like metonymy and metaphor can help to make abstract ideas more concrete. Despite the possibility of using these types of visual figures, what I found in Paper 2 was that fewer and fewer linkages were made to material things in the organization (except for photos of the CEO and the Board of Directors, which are common elements in annual reports). I explain this as a shift from using "as-is" direct visual representations to using symbolic representations. Since corporate symbolism has been linked to myth-making at a general level in annual reports (Preston and Young, 2000; David, 2001), I would propose that self-representations rely more on symbolic imagery with an amaterial link to the underlying referents in the organization. Reliance on symbolic imagery may result in more visually similar diagrams as representations draw inspiration from the market norm of business model visualization as conceptual ideas rather than concrete material things in the organization.

One exception to the increasing amateriality of visual representations is the small number of business model maps. This subcategory of sequential diagrams contains diagrams that draw on the map metaphor to represent the business model, which were found in some raw materials industries. Figure 6 in Paper 1 is an example of this. It shows the business model of the New Zealand energy provider Contact Energy as a map of the production process. By

visualizing key locations along the production process, the map diagram highlights the firm's focus on raw materials and the manufacturing stages. This is achieved by using symbols (e.g. employee icons, ships, oil rigs), that act as representatives of their counterparts in the material world. The diagrams appear realistic because the map diagram implies a physical space as the referent. That other industries typically did not use such diagrams suggests that the highly material value creation process of oil and energy companies is more visualizable, while a higher degree of conceptual translation is usually necessary between the business model and the visualization representation of the business model in less material industries.

Diagrams can help to legitimate the stages of the business model through rationalization rhetoric (Jones *et al.*, 2017) by simplifying concepts, and focusing on the most salient means to achieve the end of value creation (cf. Kress and van Leeuwen, 2006), and this seems to be the case for most business model diagrams in the collection. However, map diagrams like the business model map also contain a degree of storytelling (*mythopoiesis*): the map is 'the model of our business' and presents a visual narrative of a production process without hitches or negative impacts on the environment, which allows the projection of clean and organized processes of energy production. This is similar to how David (2001) describes an oil company representation of its business using a clean oil rig against a blue sky as an ideal state. In the same vein, business model maps are aesthetically inviting and easy to understand since little conceptual translation from reality to diagram is necessary. Similar to the study by Lefsrud, Graves and Phillips (2016), in which moral legitimacy could be invoked using certain symbols of positivity like green, forests and peacefulness, the map diagrams draw on both the market trend of reporting on business models (*authorization*), the ideal of rational means-end production (*rationalization*), and the use of positive colors and unproblematic symbols in the diagrams themselves (*moralization*) to convey not only the means, but also the moral values, of value creation. The above discussion indicates that even diagrams, which are described by Jones *et al.* (2017) as a visual format that can establish legitimacy through rationalization, can elicit many different legitimation associations at the same time.

As the above discussion indicates, there may be differences regarding which levels of sign conventions that influence how firms use business models and other visuals in accounting narratives. Ericsson's annual reports increasingly depict a less company-specific and amaterial reality, which was likely influenced by market pressures and industry trends. This stands in contrast with the business model diagrams investigated in Paper 1. There was a clear lack of uniformity of diagram use despite the existence of guidelines for how to report on business models from regulatory bodies and interest groups (e.g. ICAEW, 2010; FRC, 2014, the integrated reporting initiative), and researchers (Bukh, 2003; Nielsen and

Roslender, 2015; Michalak *et al.*, 2017). This suggests that even with reporting guidelines, the use of business model diagrams is highly differentiated between firms. In other words, business model diagrams, similar to visuals use in annual reports, seem to be influenced by sign conventions at the internal and market, more than the regulatory, level.

To sum up, the rational component of business model diagrams are indicative of a less complicated underlying idea of the business model than my investigation of the mental models used internally suggests. In addition, the analysis of sources of legitimation rhetoric in business model diagrams indicates the possibility to use rationalization by simplifying and streamlining complex production processes, moralization through the inclusion of bright colors to portray non-problematic organizations, and a predominantly positive mythopoetic dimension in the way that the business models are visually portrayed.

Using self-representations

One of the key contributions of this dissertation is the proposed typology of visualization logics introduced in Paper 1. Due to the lack of research on diagrams as resources in accounting communication (Davison, 2015), fairly little is known about how diagrams are used and how they work in accounting narratives. This leaves room for contributions that help to explain and demonstrate how diagrams work. There is also room to expand on how diagrams can be used as resources for various roles involved in producing or reading accounting narratives, such as accounting professionals, shareholders, regulators, designers, and the general public. In this section, I discuss two topics: (1) the nature of the typology of business model diagrams as a contribution, and (2) how the typology can be used related to the production, reading, and evaluation of accounting narratives.

A typology of business model diagrams

The taxonomical exercise in Paper 1 revealed four underlying types of business models. The number is comparable to visual taxonomies created in previous visual studies, though four is the lower-end value. For example, in their attempt to determine how many types of ‘management diagrams’ there are, Lengler and Eppler (2007) found around 100 different diagrams in textbooks and on websites. They grouped the diagrams into 6 categories based on classification parameters like complexity, type of thinking involved, and main application. Similarly, Kudryavtsev, Gavrilova and Leshcheva (2013) organized diagrams into categories based on the type of knowledge represented, and found 7 ‘ways of knowing’ through visual representations. Lohse *et al.* (1994), meanwhile, proposed 11 clusters of visual

representations in their study based on 20 participants' quantitative ranking of a wide range of different types of visuals.

The differences between the number and types of categories in these studies are due to methodological and conceptual differences when creating the classifications, and the differences highlight that the number of categories that emerge from a visual taxonomy depends on the design of the study. This raises the question of whether the number of categories in Paper 1's typology is a reasonable number of categories. On the one hand, no two diagrams looked the same (though some were conceptually, or visually, similar); therefore, at one end of the scale, it would be possible to create 242 categories of business model diagrams, where each diagram in the collection is the archetype of its group. But on the other hand, a single category might also suffice, as the diagrams are similar in that they all reflect a business model diagrammatically, which sets them apart from business model narratives that use other written, numerical, or visual formats.

In terms of usefulness, the number of categories would be somewhere between 242 and 1, but certainly closer to 1. My four categories are based on several stages of coding sensitized by visual theory. At the first stage, the coding generated a large number of first level-categories. These 'sub-categories' were then abstracted to four second-level categories, based on how they represented transformationality (cf. Glaser and Strauss, 1967; Gioia, Corley and Hamilton, 2012). For example, in cycle diagrams, where the main sub-categories were activity loops and success factors loops, there were enough similarities between the two types' visual styles and underlying logics that they were grouped into the same second-level category. Although conceptually, a distinction can be made between success factors, which relate to a future strategic intention of success, and activity loops, which relate to the current operations, both diagrams imagine the business model as involving the circular transformation of either resources or success factors to create value. As I indicated above, how many, and which, categories are suitable for a visual taxonomy depends on the logic of classification used, and the purpose of the classification. If the purpose of the typology is to explicate different time perspectives, or use of resources by the firm, success factors and activity loop diagrams would likely not have been sorted into the same second-level category. However, since my typology uses transformationality to reflect value creation logics, I would argue that the resulting categories are useful and meaningful for Paper 1's purpose.

Using the typology

The typology I created in Paper 1 is an example of how to categorize and explain diagrams where transformation of components is a key analytical dimension. In addition to this

somewhat specific use, the paper also demonstrates how to analyze diagrams, since, prior to developing the categories, I identify a ‘toolbox’ of diagram terminology to be used when analyzing diagrams. The toolbox includes terms like ‘spatial metaphor’ (a term proposed by Tversky, 1997) and ‘transformationality’ (a term proposed by me, inspired by e.g. Tversky (1997; Heiser and Tversky, 2006) and Kress and van Leeuwen (2006)). Paper 1 thus has three contributions in terms of diagram use: it contains key terms for analyzing diagrams, it presents a typology of different types of business model diagrams classified according to their degree of transformationality, and it demonstrates and discusses the typology as a way to show how to think about diagrams. Together, the three contributions make up a *framework* for thinking about diagrams, which I argue can help visual literacy for a number of roles involved in producing and viewing business model diagrams. This question of how different roles might use the framework is not a topic I expand on in Paper 1. This is why I devote the following sections to giving examples and to suggesting how the framework can be used depending whether the purpose is to produce, view, or evaluate diagrams. A selection of roles and their proposed main types of use are illustrated in Figure 3 above.

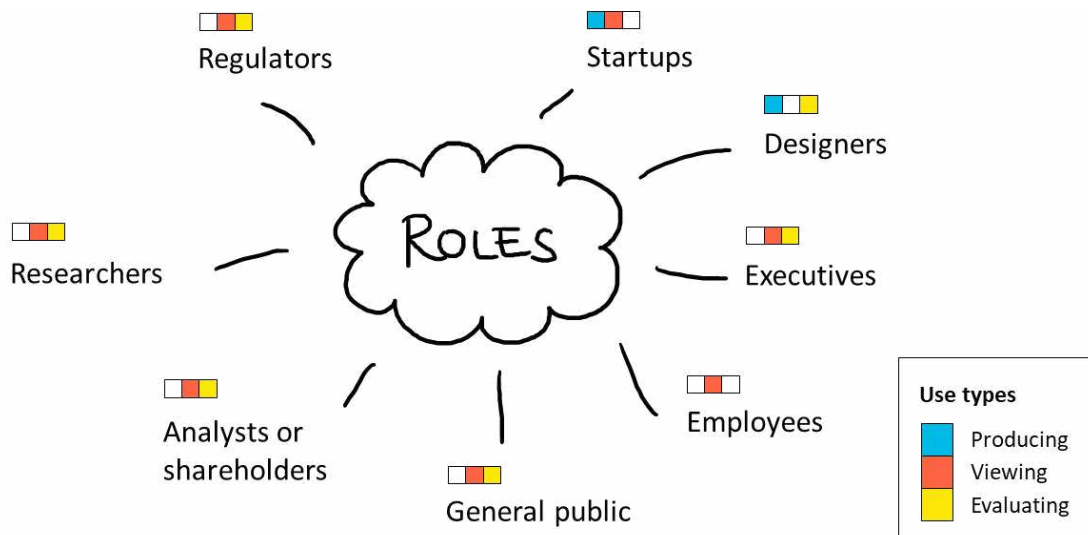


FIGURE 3: ROLES INVOLVED IN THE PRODUCTION, VIEWING, AND EVALUATION OF CORPORATE DIAGRAMS

Each of these uses relates to different perspectives on visual literacy. For designers of diagrams, visual literacy refers to the ability to choose and design elements of the diagram in relation to an overarching information design purpose, while for viewers of diagrams, visual literacy involves a basic awareness of which terms that can be used to guide interpretations of diagrams and a familiarity with common types of diagrams and their communicative purpose. Conversely, a user aiming to evaluate diagrams would strive for visual literacy in

the sense of being able to critically examine the diagrams, including awareness of sign conventions, symbolism and underlying visual logics in diagrams. In the next sections, I discuss some examples of how the framework could support practitioners and researchers in different ways depending on the type of visual literacy they strive for. I discuss this in terms of the ways different roles might engage with diagrams using the framework from Paper 1.

As I indicate in the above discussion, each role might use diagrams differently and for different purposes. The discussion that follows the figure is divided into the three categories of uses of a diagram framework, and their respective types of visual literacy: producing diagrams, viewing diagrams, and evaluating diagrams.

Producing diagrams: visual literacy as the ability to create useful diagrams

One of the potentially most useful dimensions of Paper 1's framework is to clarify different approaches to value creation. This can be used for designers who wish to produce the most effective versions of their business model when communicating to internal and external stakeholders. The typology summarizes different approaches to visualizing business models that designers can choose from when designing business model diagrams. In addition, the framework as a whole (i.e. the terminology, typology of common types, and the demonstration of communicative outcomes of different diagrams) is a tool that designers can draw on when creating diagrams.

One dimension of improved design is to ensure consistency between visual and verbal messages. Consistency of messages can be a way to increase readability of accounting narratives, and the framework from Paper 1 demonstrates that certain illustrations are more conceptually aligned with certain business terminology than others (for example: transactive logics and ecosystems, or cycle logics and sustainability). Thus, the framework can be used to support alignment in cases where texts and diagrams as representations of the firm's business model are combined. This would be especially important if readers choose to engage with the text or the diagrams but not both. For instance, a shareholder, employee, or member of the general public may not read accounting narratives in extensive detail. Such viewers may use the more visually accessible formats, such as photos and diagrams, to get an overview of the information quickly. For such readers, firms that wish to promote a holistic picture of the organization need to take into consideration the cohesiveness between written text, numbers, and diagrams to ensure that the visual representations capture the essence of what is represented in text and numbers. Here, being aware of the different basic logics of business model visualizations can help.

In addition to representational benefits, I argue that the framework can be used as a tool for supporting business model development processes. For instance, the framework could be used to inspire startups and firms aiming to redesign their business model to think about the business model from alternate or multiple perspectives. Different visual structures can be linked to ways of processing information (Sibbet, 2008); that is, different structures inspire different types of thinking. In addition to enabling different types of information processing, visual displays can reconcile high-level and detailed ideas (Tufte, 1990) and lead to better understanding of complex relationships (Larkin and Simon, 1987). It follows that different visual representations can be used for thinking about business models from different perspectives. Based on this, it is proposed that the framework can be used to create different alternative representations of the business model during the business model design stage, where founders or business model innovators meet to discuss the business model design for building the venture or for communicating its strengths to various audiences. Alternately, the typology could serve as visual archetypes to choose from when discussing how to innovate on the business model. In such a case, the affordances of each type of visualization logic in the typology can be used to emphasize or downplay which aspects to consider with regard to the firm's current or intended future business model.

To illustrate the ways that the different visualization logics can be used as inspiration or starting points for re-designing or reflecting on the business model in startups or firms looking to redesign the business model, I outline examples of discussion questions below. They are organized in terms of the four logics: classification, transactive, cycle, and sequential designs. The typology both encourages the exploration of possibilities and alternatives within a specific class, and the exploration of which additional insights that questions from another class could bring.

Classification logic. This logic sees the firm as a set of components necessary for value to be created. It is a lens that can inspire thinking in terms of choosing key resources, people, partners, and success factors. Listing these, and visualizing their relationships, can be a way to start a discussion about what is needed, and how the components can be configured to create value. Related questions include: which are the key components in the business model? What is the relationship between them? Which components (e.g. actors, success factors, locations, resources) are the most important for value creation? Which roles should be assigned to various actors to create value? This perspective does not incorporate transformationality components, and the next design step could therefore be to incorporate questions from one or more of the other perspectives.

Transactive logic. The transactive logic is a lens that emphasizes the firm's network, and which supports thinking about how to design—and communicate—the firm's boundaries, activities, and exchanges with other firms. This perspective highlights the importance of collaboration in ecosystems for value to be created, since it shows interdependencies and bidirectional exchanges between ecosystem actors. The transactive logic could thus help firms to think about how relationships with partners and customers are organized for value creation. It also supports discussions about the roles associated with interdependencies, and how this affects the firm's exposure to market and sustainability risks that could result from collaborating with other firms. Questions that can help improve the transactive design include: what is exchanged between network partners in the business model? How do different actors contribute to the business models, and what are their roles in value capture? Could transactions be a way to shift the boundary of the firm closer or further away and thus benefit from a more effective structure in relation to the customer? Is the firm exposed to risks and opportunistic behavior from network partners, and how could these risks be mitigated to ensure a robust network for value creation? Is it possible to increase revenue by restructuring costs and revenues among the network partners? How could partners be involved to augment the offering to improve customers' perception of value?

Cycle logic. The cycle logic helps business model designers to see the firm as a continuous set of activities, actor links, or success factors, i.e. the crucial ongoing events in the firm that generate value. This lens is aligned with sustainability and perpetuity thinking, which helps to emphasize transformations taking place to create value from a sustainability perspective. As sustainability is an increasingly important topic for organizations to consider, the cyclical visualization logic can be used to think about societal outcomes of the business model, including how to handle circular economy concerns like resource efficiency and recycling. Questions reflecting the cycle logic include: in which order are activities or success factors linked, and could factors/activities be added, removed, or reordered to increase value creation potential? Are there any inputs to, or outputs from, the business model, and if so, when and where? Are there societal effects of the business model's circularity, e.g. externalities that need to be taken into account? What is it that makes the loop start again? What is needed to keep the loop looping perpetually?

Sequential logic. Sequential diagrams have the highest degree of transformationality. This means that the sequential logic can help firms to think about value creation as a set of stages (e.g. actors, activities, events, factors, locations) that lead to value creation, and to configure the components in the order which creates the most value. However, process diagrams have been criticized for being too generic and for failing to indicate the firm's focus (Nielsen and

Roslender, 2015). In Paper 1, I also noticed that many of the sequential diagrams analyzed were limited in the sense that they focused on a single firm's activities, and some treated value as a material output of a process, rather than a perception in the mind of the customer. Such visualizations could be counter to the firm's view of how value is created. Drawing and discussing business models from this perspective could therefore benefit from including transactive or cyclical perspectives. Related design questions might include: could the order of activities or actors be changed to improve value creation? Where in the process is value created for the firm's stakeholders, e.g. customers, shareholders, and society as a whole? How does the process align with network partners?

Viewing diagrams: visual literacy as the awareness of key terms for interpreting diagrams

Once diagrams are designed and communicated, the next step in the chain in the production of visual artefacts is the viewing stage. Compared to an evaluative examination (which I discuss below), the priority of the viewing perspective is to learn to interpret and understand diagrams. Audiences that view diagrams include employees of firms that use them as self-representations, as was the case in the pre-visual stage of self-representation in Paper 3. Externally published business model diagrams also have a wider audience, including the general public (who may be interested to know about firms' business models), and financial analysts, shareholders, and regulatory bodies (who may wish to know how the firm intends to create value or assess if it represents a fair and balanced picture). For these audiences, Paper 1's terminology of ways to describe diagrams and the examples of what these look like can act as sensitizing devices that support the viewing so that the most salient aspects of the visual message are effectively interpreted. Recognizing the type of diagram can help the reader interpret it more quickly, while the awareness of alternative types can make the reader more aware of what is *not* included in the representation.

Researchers might use firms' published diagrams as data to inform about their activities, beliefs, and standings, as I do in Paper 1. It has been suggested that visual methods (e.g. studying visual artefacts or photo elicitation techniques) can serve as valuable alternative approaches to capture information about organizations (Bell and Davison, 2013), and Paper 1 shows one way that this can be done. My approach revealed different types of insights (underlying logics, industry patterns) than other studies on business model disclosure, which have focused on the nature of the disclosure itself (e.g. Bini, Dainelli and Giunta, 2016; Melloni, Stacchezzini and Lai, 2016). This suggests that visual methods can be useful to capture the non-obvious and non-tangible ideas held by organizations about themselves.

Future studies could use the idea of visual data to classify, organize, and evaluate corporate practices. Here, the typology could be used as a framework for further empirical studies of diagrams in public corporate self-representation in e.g. annual reports or the ‘about us’ and investor relations sections of firms’ websites. Alternatively, researchers focusing on the more traditional formats of accounting information (e.g. texts and numbers), might use the framework to check whether illustrations are consonant with the interpretations derived from analysis of text and numbers, or if they seem to diverge.

Evaluating diagrams: visual literacy as a toolkit for critically examining diagrams.

The next step after viewing and understanding diagrams as carriers of information about organizations is the evaluation of diagrams. In contrast to the viewing perspective outlined above, the evaluative use primarily aims to uncover hidden dimensions to analyze and question the communicative usefulness or meaning of diagrams. Many roles could use diagrams this way, including designers who create them, the executives that approve them for use in accounting narratives, and financial analysts who analyze the firm. A more critical reading of diagrams can reveal underlying messages that the designers may not have been aware of, or which they were aware of and deliberately included in the diagram as a means of impression management (or even fraudulent representations of the business).

An example of embedded, and potentially unintentional, symbolism in diagrams is the organization chart, which is common in accounting narratives as a representation of the organizational structure. It has been argued in visualization studies that the org chart perpetuates the notion of a hierarchical power structure that is poorly aligned with how many organizations are currently being run (or strive to be run) today (Mintzberg and Van der Heyden, 1999; Cummings and Angwin, 2004; Lima, 2011). While designers or executives may not use org charts as self-representations with the intention of conveying values of hierarchy and power, many visualizations are carriers of socially and culturally derived meaning (sign conventions). This means that alternative interpretations of diagrams may arise when a message is viewed by an audience, and that the intention of the designers may not be the primary determinant of the meaning of messages.

Critical examinations help to uncover unintended, alternative, or even fraudulent dimensions of diagrams used in accounting narratives. This could involve paying attention to that which is not included in the diagram (see the suggested discussion questions under ‘Viewing diagrams’) and to know to look for embedded symbolism that is not explicitly explained in the diagram or in the accompanying text. For instance, I comment in Paper 1 that cycle diagrams can be useful for conveying that the firm is sustainable or perpetually successful.

However, as such diagrams rarely denote any output or outcomes of the business model, an alternative reading may be that the firm is not producing anything tangible or useful. Awareness of what each visualization logic in the typology highlights and downplays, and which additional connotations about the business that it could convey, may help different roles involved in producing or analyzing them to reflect on what diagrams convey to audiences. Doing this before diagrams are published could be a way to reduce the risk of conveying unintended messages through conventional self-representational signs.

In addition to the direct uses I point to in the section about viewing diagrams above, researchers could also use the typology as a starting point for evaluating the typology per se (for example: is this the most effective classification of diagrams to explain business models?) by challenging the assumptions of the typology (for example: in which cases is transformationality a useful concept for explaining differences in visualization?). Researchers might also use the framework as a guide when researching accounting or management practice, in which case the framework can serve as inspiration for analytical frameworks to study other types of diagrams used throughout the accounting process. One such question for researchers as well as auditors and regulators is whether diagrams represent actual conditions at the company, or whether diagrams are used to further a specific communication agenda (e.g. by implying sustainability through the use of cyclic visualizations) that is more impression management than representation of a current state in the company.

The past and present of self-representation in accounting narratives

The self-representations explored in this dissertation were produced during different time periods and therefore under very different circumstances. When it comes to diagrams, the longitudinal data from Ericsson's annual reports indicates that the use of diagrams in accounting narratives increased during the 1990s, and became commonplace in the 2000s. By the 2010s, diagrams were a common feature in Ericsson's accounting narratives, and were used to illustrate a range of topics, including strategy, the governance process, the firm's industry, business models, and market opportunities. It can thus be argued that diagrams are a relatively new, but widespread, phenomenon in accounting narratives. The sample in the collection of business models in Paper 1 adds to this finding, since it contains examples of diagram use in accounting narratives from numerous industries (e.g. commodities, software, pharmaceutical, and tourism), and from all parts of the world.

As for the reporting context, the dissertation implies that there have been numerous changes in how accounting narratives are constructed both visually and otherwise, which includes a shift towards firms including more non-numerical aspects in their annual reports. This was argued to be in response partly to regulators requiring such information, but mostly to sign conventions at the internal and market levels. During the time period I investigated (1940s to 2010s), there has been an overall shift in the structure of the economy, from physical production to knowledge orientation. The transition has been described as a shift from bricks-and-mortar to digital products (Thurik, Stam and Audretsch, 2013; Breman and Felländer, 2014; Massa, Tucci and Afuah, 2017) with a corresponding transformation from manufacturing value chains to a service-based logic in some industries (Davies, 2004).

Based on the Ericsson case, changes in self-representations began to emerge in parallel with the market context changing towards more service-based models. Compared to earlier self-representations, the present-day self-representations in Ericsson's annual reports are more untethered from the material reality, and instead symbolically linked to the organization's beliefs, values, identity, and future intentions. This shift is also reflected in the way business models (with the exception of particularly material industries) are represented with conceptual rather than concrete diagrams. A parallel development observed in this study is that present-day visual legitimation rhetoric seems to be draw on external sources of legitimacy, e.g. market praxis and trends. In contrast, rationalization of productive capability and skill as internal characteristics of the organization seems to have been more common in earlier reports, where visualizations were rooted in the material reality of the organization. In Table 5 below, I summarize the above observations regarding self-representations in accounting narratives.

As the table shows, earlier self-representations usually had a material referent: the factory and production processes were material referents reported in the annual reports of Ericsson. Visually, the legitimation rhetoric was rooted in market conventions by including sources of authority (well-known persons) in the annual report, such as photos of authority figures visiting the factories, and in showing productive ability through the material dimensions of the organization. Diagrams, too, were rooted in a material reality, in the form of map diagrams that could help indicate global reach similar to Figure 2 on page 49, where it was the visual representation of Ericsson's network that served as evidence of its identity as a global organization. Based on the above discussion, I argue that companies use more visual formats, as well as more different types of formats overall, in accounting narratives. By examining these logics in more detail, I argue that visuals are key resources for self-representational references to the organization in accounting narratives.

TABLE 5: COMPARISON BETWEEN TRADITIONAL AND CURRENT USE OF VISUALS

	Before (pre ~1990)	Now
Market context	Bricks and mortar, production economy, manufacturing systems	Digital, knowledge economy, service systems
Referent	Material reality	Amaterial reality
Self-representation	As-is realistic front pages rooted in material referent Diagrams of concrete locations	Decontextualized, symbolic front pages rooted in an amaterial referent Conceptual diagrams, showing ideas, beliefs, thoughts, causal relationships
Author	Internal creators, the company as a collective	External creators, use of external agencies and consultants
Sign conventions	Appeal to societal <i>authority</i> – photographs of powerful or well-liked persons Identity: skill and ability expressed in photos of factories, products (<i>rationalization</i>)	Include narrative information, e.g. CSR, business models, in response to regulations Borrowing ideas of best practices of self-representations (<i>authorization</i>); symbolism of globalization, innovation, sustainability (<i>mythopoesis</i>); diagrams show reality as rational process (<i>rationalization</i>)

Although it was not a main topic of inquiry in this dissertation, one dimension of self-representation is the creators involved in producing them. It has been pointed out that authorship is often divided between designers, accountants and external agencies in the production of the annual report (Stanton and Stanton, 2002; Beattie, 2014), meaning it is difficult to pinpoint an individual person as the one making motivated choices of signs. Anthony Hopwood comments on this development in the following way:

A whole new industry has grown around the production of such documents. Alongside the audit firms are specialist design agencies, corporate photographers, adjuncts of the PR industry and even publishers of the “best”, the “latest” and the “be-medelled” reports. (Hopwood, 1996, p. 55).

The professionalization of accounting narratives could lead to a suppression of other views held about inside and outside the organization. Not all employees are given the chance to present their perspective on the report, meaning not all the views of what the company is and does get included in the report. In the project of producing the annual report, rather, several agents coming from different areas perform a part in channeling requirements, beliefs, and intentions into an accounting narrative, so can we understand this information as a product of the company? In Ericsson’s early reports (pre-1970s), for example, it was common to include information about where the annual reports had been printed, indicating a view that the report was a collective effort of the company, rather than the product of any specific team

or agency. By 2001, however, it was specified that the annual report was produced by a team involving project management, design and production, content team, photography, and printing.

When the corporate personhood metaphor applied to self-representations, it is possible to conclude from the patterns of self-representation I have examined that the locus of external self-representation is shifting from a proximate to a distanced model for creating self-representations, and that this development is concurrent with the shift to using more amaterial representations in the accounting narratives. One question that can be asked regarding this change is what kinds of self-representations that emerge from a multi-stakeholder creation process, since the Ericsson production team example shows that there are more ideas and voices involved in creating the report, some of which are external to the organization.

CHAPTER 5

CONCLUSION, IMPLICATIONS, AND SUGGESTIONS FOR FURTHER RESEARCH

Summary of the findings

The purpose of this dissertation was *to analyze and conceptualize empirical examples of self-representations in accounting narratives in relation to legitimation rhetoric*. The dissertation's conclusions can be distilled from the in-depth discussion in the previous chapter. I summarize these conclusions in the following way:

- There is an increasing use of visual self-representations in firms' publicly disclosed information. Based on a single case examined longitudinally, the representations are shown to be increasingly based on amaterial representations of the organizations. The changes are explained in terms of shifting business logics, from manufacturing to service, physical to digital, and from production to knowledge economy.
- Diagrams are used as a supplement to material expression, providing visual representation of amaterial referents of the organization, such as the business model.
- While external self-representations may seem congruent and straight-forward, there could be internal tensions between conceptualizations of self-representations. External self-representations may be chosen as legitimating devices, despite conceptual tensions internally.
- Traces of institutional legitimation rhetoric can be found in self-representations in accounting narratives. Sources of sign conventions seem to influence self-representations more clearly from the market level than on from the level of regulatory and normative bodies.

This dissertation's contribution is to explore examples of self-representations that are used alongside numerical and written accounts on websites and in annual reports to portray the organization. This study's finding that self-representations are linked to several types of legitimation rhetoric highlights that researchers and regulators interested in accounting could adopt the inclusive view on accounting narratives to examine the way the company constructs itself. These aspects are important contributions to the aim of increasing visual literacy for accounting practitioners and researchers.

Concepts for visual literacy in accounting practice and research

Linking back to the concept of theoretical lenses that I described in Chapter 2, I conclude by reiterating and briefly explaining the key concepts and ideas developed throughout the dissertation. I believe that these concepts can be helpful for improving visual literacy in the management accounting research field, as well as for practitioners (e.g. accountants, communication specialists, and regulators) who are interested in the developments of formats and topics used in reporting practice today. Below, I outline the concepts, and also attempt to provide more general observations by adopting them as lenses for explaining the conclusions of the dissertation.

Inclusive perspective on accounting narratives. The inclusive view is adopted in this dissertation as I investigate different types (diagrams) and new topics (business models) for self-representations, as well as a more inclusive range of arenas for conveying the information than printed annual reports (such as websites, online annual reports, blogs). The dissertation thus demonstrates one way to expand the study of present-day self-representational behavior in firms, which I describe as an important dimension of how firms legitimate themselves as social actors.

Amateriality. The referent of the organizational self-representation is shown to have become more amaterial, suggesting a shift from visualizing a link between the productive enterprise being and the idea of the organization as an entity, to a more abstract and complex foundation of organizations as socially constructed entities. Instead of a direct representation of features of the organization, present-day self-representation can be seen as a collection of ideas, linked together to become a mode for constructing the organization's identity as an autonarrative that uses the increasingly ubiquitous visual medium to do so. That so much of the construction of organizations and their identity takes place outside the traditional accounting sites highlights the usefulness of adopting the inclusive view on accounting narratives in order to understand the ways organizations construct themselves as legitimate social actors

by publicly disclosing information about themselves. The inclusive view invites a further consideration and problematization of these types of representations.

Self-representation. Self-representations are at the heart of the dissertation as an accounting format that aims to combine the legitimation rationale with differentiation and identity rationales. Through consideration of legitimation and identity in terms of self-representation, issues of materiality or amateriality gives rise to questions of the meaning of ‘the self’ in accounting narratives. For instance: what formats are used to represent the organization? Of the formats used, which are ‘acceptable’ by society, and which are problematic? Which guidelines, if any, are necessary in order to ensure that messages are representative and transparent, especially given the observed tendency for external self-representations to reflect a favorable view of the organization? Can organizations exist without self-representation? Who approves the self-representation? How do self-representations evolve? Can they be seen as an evolving process of identity formation, similar to trends observable for individuals on channels like social media?

Diagrams. As a specific subset of self-representations, diagrams are a relatively new format in accounting narratives that contributes to firms’ legitimation rhetoric that could be identified as such by adopting the inclusive view on accounting narratives. Most of the diagrams analyzed in this dissertation are examples of amaterial representations of the organization, since they are shown to depict ideas rather than physical terrains. As diagrams can help to describe, and account for, amaterial referents in the organization, this gives rise to new perspectives on diagrams as formats for legitimation rhetoric in accounting narratives.

Research implications

This study has two main implications for research. First, the dissertation shows how diagrams, which are unexplored in research (Davison, 2015), but potentially effective communication resources in accounting, can serve a legitimating purpose in accounting narratives, prompting the implication that diagrams should be considered on par with graphs and photographs as rhetorical devices in accounting narratives (Beattie and Jones, 1997; Courtis, 1997; Frownfelter-Lohrke and Fulkerson, 2001; Amer, 2005), and based on this, be researched and critically examined in similar ways. This finding can serve as a starting point for a research agenda that examines the diagram as a communicative resource for describing facets of an amaterial accounting reality.

Second, the trend of increasing uses of visual self-representations in accounting narratives is likely to continue given the increasing reliance on visual formats in society as a whole, and

the tendency for firms to use digital formats to communicate with external audiences of accounting narratives. The contribution of this study is to provide examples of the developments, and to propose an inclusive view on accounting narratives as a way to expand the scope of accounting research to better consider and track these trends. To operationalize the inclusive view, I propose several concepts for describing and analyzing these developments: self-representation, amateriality, and diagrams.

Practical implications

As I indicate in ‘Using self-representations’ in Chapter 4, improved visual literacy and understanding of how diagrams work can help practitioners to better choose a business model visualization that suits their intended underlying logic. Alternately, if the firm is not yet at the stage where a complete mental model of the business model exists, the typology of business model diagrams from Paper 1 can serve as inspiration for common visualization logics of business models. The framework from Paper 1 is useful as it clarifies that the business model visualization offer different perspectives on the business, and that there are advantages and disadvantages to using each type.

Moreover, as this study shows that diagrams can influence impressions through various forms of visual legitimation rhetoric, guidelines about reporting content could extend to consider diagrams rhetorical devices instead of viewing them as mere communication aids. Therefore, for regulators, the findings are a call to pay more attention to diagrams as communicative artefacts in accounting narratives. Although this and other studies indicate that visuals use may be difficult to regulate, regulators could benefit from increased visual literacy to understand how accounting narratives are constructed using these new types of formats, and, in the longer term, seek to develop guidelines or evaluation techniques for accounting narratives that include diagrams.

Suggestions for further research

By proposing the ‘inclusive view’ to account for the ongoing development of using more types of concepts and formats to represent organizations in accounting narratives, several topics for further research can be identified. One such topic, only little explored in the present study, is the question of how firms create and use self-representations inside the firm, which is something that has been noted as an important topic to consider in the study of accounting as a social practice (Tregidga, Milne and Lehman, 2012) and legitimation activities (Richardson and Dowling, 1986). Such a study could consider many types of self-representations such as maps, diagrams, as-is photos, symbolic photos, and texts, and either

compare the communication effectiveness of different types, or see how these alternative types of visuals either enhance or constrain the ability for actors in accounting and communication professions to interpret and describe the organization's identity and activities. Future studies could investigate communicative effectiveness of different diagrams by comparing creators' intentions with how different diagram types are interpreted by the intended audiences. As pointed out by Tregidga *et al.* (2012), an interpretive approach to study visuals would be beneficial:

Despite the growth of interpretive and qualitative approaches to organizational reporting and communication in the accounting literature, we would argue that there is still a need for accounting research that takes seriously the public relations, rhetorical, propaganda and political aspects of corporate messages as presented through annual reports, stand-alone reports, media releases, and other organizational communications, as well as their creation, reception and contestation. (Tregidga, Milne and Lehman, 2012, p. 224).

Moreover, with the inventory provided in this study, which shows that diagram use in accounting narrative uses a predominantly positive tone (Paper 1), and that diagrams are an increasingly common format in accounting narratives (Paper 2), I argue that diagrams can serve the purpose of impression management by means of visual legitimation rhetoric and that this phenomenon is worth further examination. However, since diagrams are less researched and not yet examined in terms of impression management beyond the brief observation I make in this dissertation (that they always paint the firm in a positive light through *selectivity* and the *graphic design*), there is currently limited evidence of diagrams' role as impression management tools. The links to impression management would therefore need to be made clearer than I could hope to do with this dissertation's findings.

Relatedly, future studies are also encouraged to continue the research on how diagrams affect impressions and present different perspectives about the organization's actions and identity in relation to the accounting reality. Given the issue of impression management in graphs and photographs (e.g. Curtis, 1997; David, 2001; Frownfelter-Lohrke and Fulkerson, 2001; Beattie, Dhanani and Jones, 2008; Hrasky, 2012), which point to the importance of limiting the misuse of visuals to skew the impression of information in the mind of the reader, a related question could be whether diagrams could be interpreted as distortions of a reality, as well, and if so, what kind of reality is being distorted with diagrams, and how. A collection of best-practice examples of diagram use in accounting narratives, and more extensive theorizing about diagrams as impression management tools, could be ways forward for researchers interested in diagrams as communicative resources in firms' accounting narratives.

Finally, other perspectives worth exploring further include whether the developments observed in the single-case study of Ericsson's annual reports reflect a more general trend of using more diagrams to represent organizations. Future studies could make similar case studies of other industries in other regions and provide more insight into the universality of the results of this dissertation. Ericsson's transformation towards using material visuals could partly be explained by their shift towards a more service-oriented value chain, which is linked to an identity change from being a communication equipment manufacturer to an enabler of communication. If the findings of more abstract visualizations to represent organizations are found to be more general than this, it would serve as a key observation of how the empirical phenomenon of self-representations in accounting narratives have developed over time.

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