

Department of Industrial Engineering and Management

# Analytically Structured History Approach Using a Relational Database

---

Essays on the Historical Embeddedness of Strategy  
Formulation

---

Zeerim Cheung

# Analytically Structured History Approach Using a Relational Database

Essays on the Historical Embeddedness of Strategy  
Formulation

**Zeerim Cheung**

A doctoral dissertation completed for the degree of Doctor of Science (Technology) to be defended, with the permission of the Aalto University School of Science, at a public examination held at the lecture hall TU1 of the school, and also via remote technology, on June 25th, 2020 at 6pm.

Zoom link: <https://aalto.zoom.us/j/63233654508>

**Aalto University**  
**School of Science**  
**Department of Industrial Engineering and Management**  
**Institute of Strategy and Venturing**

**Supervising professor**

Associate Professor Robin Gustafsson, Aalto University, Finland

**Preliminary examiners**

Professor Santi Furnari, Cass Business School, City, University of London, United Kingdom

Professor Charles Harvey, Newcastle University Business School, United Kingdom

**Opponent**

Professor R. Daniel Wadhvani, Marshall School of Business, University of Southern California, USA

Aalto University publication series

**DOCTORAL DISSERTATIONS 98/2020**

© 2020 Zeerim Cheung

ISBN 978-952-60-3937-4 (printed)

ISBN 978-952-60-3938-1 (pdf)

ISSN 1799-4934 (printed)

ISSN 1799-4942 (pdf)

<http://urn.fi/URN:ISBN:978-952-60-3938-1>

Unigrafia Oy

Helsinki 2020

Finland



**Author**

Zeerim Cheung

**Name of the doctoral dissertation**

Analytically Structured History Approach Using a Relational Database – Essays on the Historical Embeddedness of Strategy Formulation

**Publisher** School of Science**Unit** Department of Industrial Engineering and Management**Series** Aalto University publication series DOCTORAL DISSERTATIONS 98/2020**Field of research** Strategic management**Manuscript submitted** 6 March 2020**Date of the defence** 25 June 2020**Permission for public defence granted (date)** 1 June 2020**Language** English **Monograph** **Article dissertation** **Essay dissertation****Abstract**

With this dissertation, I present our analytically structured history approach using a relational database to study the historical embeddedness of strategy formulation. For more than 25 years, there have been repeated calls for more history in strategy and management research. However, the methodological divide between history and social scientific management research has been identified as the main barrier preventing the wider use of historical methods in strategy research. Management scholars tend to view historical research as descriptive, lacking theory, and methodologically opaque, whereas historians view management research's pursuit of generalizable theoretical contributions as ahistorical.

I argue that our approach fulfills both the need for theoretical contribution required by strategy research and historical veracity required by historical research, thus bridging the methodological divide between the two fields. Our approach that is built around a relational database with extensive digitized archival sets has multiple methodological strengths. First, methodological transparency is established by linking all the coding steps to the original archival sources. Second, coding can be done and evaluated in real-time among multiple researchers. Third, the always available and searchable database will be highly efficient once the relatively laborious processes of digitizing the sources and setting up the database are complete.

The three essays of the dissertation represent studies that utilize our analytically structured history approach using a relational database. In Essay 1, we focus on the initial emergence of a new organizational form globally by studying the two first for-profit stock exchanges in the world. This essay demonstrates how our approach supports a detailed comparison between two cases through comprehensive incident coding. We found that peer interaction contributes to the emergence of new organizational forms, particularly when new organizational forms are introduced by established organizations through organizational renewal.

In Essay 2, the focus is on how the top management team of Post and Telecom Finland formulate its political strategies under different regulatory environments during the transformation of the telecommunications industry from 1981 to 1998. We were able to analyze multiple regulatory issues over an extended period of time under very different regulatory conditions and examine how the top management team's strategies varied with different regulatory issues.

In Essay 3, my colleagues and I traced how the top management team of the fully state-owned Telecom Finland evaluated international venture opportunities starting from the first international venture in 1987 to 1998, when Telecom Finland was partly privatized. Our methodological approach enabled us to track the process of international strategy formulation as it unfolded.

**Keywords** historical method, archival research, qualitative method, stock exchange, telecommunications**ISBN (printed)** 978-952-60-3937-4**ISBN (pdf)** 978-952-60-3938-1**ISSN (printed)** 1799-4934**ISSN (pdf)** 1799-4942**Location of publisher** Helsinki**Location of printing** Helsinki **Year** 2020**Pages** 201**urn** <http://urn.fi/URN:ISBN:978-952-60-3938-1>



**Tekijä**

Zeerim Cheung

**Väitöskirjan nimi**

Analyttisesti jäsennellyn historian menetelmä relaatiotietokantaa hyödyntäen – Esseitä strategian muotoutumisen historiallisuudesta

**Julkaisija** Perustieteiden korkeakoulu**Yksikkö** Tuotantotalouden laitos**Sarja** Aalto University publication series DOCTORAL DISSERTATIONS 98/2020**Tutkimusala** Strateginen johtaminen**Käsikirjoituksen pvm** 06.03.2020**Väitöspäivä** 25.06.2020**Väittelyluvan myöntämispäivä** 01.06.2020**Kieli** Englanti **Monografia** **Artikkeliväitöskirja** **Esseeväitöskirja****Tiivistelmä**

Tässä väitöskirjassa esitellään analyttisesti jäsennellyn historian menetelmä strategian muotoutumisen tutkimiseen. Menetelmän keskiössä on relaatiotietokanta, jonka avulla hallinnoidaan ja analysoidaan laajoja digitoituja historiallisia yritysaineistoja. Strategia- ja johtamistutkimuksessa on yli 25 vuoden ajan vaadittu historiallisen kontekstin parempaa huomioimista. Humanistisen historiatutkimuksen ja yhteiskuntatieteellisen johtamistutkimuksen menetelmälliset erot ovat kuitenkin olleet esteenä historiallisten menetelmien yleistymiseen strategiatutkimuksessa. Johtamistutkijat pitävät historiallista tutkimusta kuvaavana eikä selittävänä, teoreettisesti puutteellisenä ja menetelmällisesti epäpäpäinäkävänä. Historioitsijat taas kokevat johtamistutkimuksen pyrkimystä yleistettävyyteen historiattomana.

Tässä väitöskirjassa esitellyllä menetelmällä pyritään kaventamaan edellä mainittuja historia- ja strategiatutkimuksen välisiä eroja. Relaatiotietokantaa hyödyntävällä lähestymistavalla on useita metodologisia vahvuuksia. 1) Menetelmällisen ja teoreettisen käsitteistön kehittämisen läpäinäkävvyys saavutetaan sillä, että analyysit toteutetaan tietokannassa ja linkitetään alkuperäisiin arkistolähteisiin. 2) Menetelmä on erityisen sopiva isoille yhteistyöprojekteille ja mahdollistaa reaaliaikaisen yhteistyön tutkijoiden välillä. 3) Tietokanta on aina saatavilla. Tämä mahdollistaa suurien arkistokokonaisuuksien tehokkaan hyödyntämisen tutkimuksessa. Tosin arkistoaineistojen digitoiminen ja tietokannan luominen vaatii ison työpanoksen projektin alkuvaiheessa.

Väitöskirja koostuu kolmesta esseestä, jotka hyödyntävät analyttisesti jäsennellyn historian menetelmää. Ensimmäisessä esseessä tutkitaan maailman kahden ensimmäisen voittoa tavoittelevan arvopaperipörssin syntyä. Tämä essee osoittaa, miten menetelmä mahdollistaa kahden tapauksen yksityiskohtaisen vertailun systemaattisen koodausprosessin avulla. Havaitimme, että vertaisorganisaatioiden välinen vuorovaikutus edesauttaa uusien organisaatiomuotojen syntyä, erityisesti silloin, kun uusi organisaatiomuoto syntyy vakiintuneiden organisaatioiden muutoksen seurauksena.

Toisessa esseessä tutkitaan Posti- ja telelaitoksen johdon poliittisten strategioiden muotoutumista telekommunikaatioalan murroksessa vuosina 1981–1998. Menetelmä mahdollisti johdon poliittisten tavoitteiden muodostumisen analysoimisen suhteessa useisiin samanaikaisiin lakiuudistuksiin muuttuvassa regulaatioympäristössä.

Kolmannessa esseessä tutkitaan valtio-omisteisen Telecom Finlandin kansainvälistymisprosessia sekä sitä, miten johdon kansainvälisten projektien arviointikriteerit muuttuivat valtion omistajaohjauksen muuttuessa. Menetelmä mahdollisti johdon kansainvälistymisstrategian muotoutumisen tutkimisen järjestelmällisesti primäärilähteitä hyödyntäen.

**Avainsanat** historiallinen menetelmä, arkistotutkimus, kvalitatiivinen menetelmä, arvopaperipörssi, telekommunikaatioala

**ISBN (painettu)** 978-952-60-3937-4**ISBN (pdf)** 978-952-60-3938-1**ISSN (painettu)** 1799-4934**ISSN (pdf)** 1799-4942**Julkaisupaikka** Helsinki**Painopaikka** Helsinki**Vuosi** 2020**Sivumäärä** 201**urn** <http://urn.fi/URN:ISBN:978-952-60-3938-1>



# Acknowledgments

My favorite subjects in school have always been mathematics, physics, and chemistry. I participated in national science competitions during high school. Naturally, I became an engineer, studied economics as a hobby, and worked as a quantitatively-oriented analyst in the financial industry focusing on interest rate derivatives. Nevertheless, the topic of my dissertation is all about a qualitative historical research approach in management and organization studies. For this unforeseen turn, I am truly grateful to my supervisor Associate Professor Robin Gustafsson for introducing me to the topic and the DIGIHIST consortium.

I further extend my gratitude to Associate Professor Robin Gustafsson, as he has supported me in all possible ways during this process. He has always been ready to give advice and comment on ongoing research projects, made sure that I had the best conditions to focus on my research, and at times made sure that I did something else other than research.

I wish to offer my sincere gratitude to my pre-examiners, Professor Santi Furnari and Professor Charles Harvey. I also wish to thank Professor Daniel Wadhvani for acting as my opponent.

It is not possible to acknowledge everyone who supported my journey by name here, but without you this would not be possible. I wish to thank all my co-authors—Eero Aalto, again Associate Professor Robin Gustafsson, Dr. Pasi Nevalainen, and Rasmus Nykvist—and all other members of the DIGIHIST consortium—Klas Eriksson, Dr. Mirko Ernkvist, Dr. Erik Lakomaa, and Associate Professor Christian Sandström. Over the years many research assistants provided important help in data collection and developing our research approach, thus, thank you Henri Hannula, Lasse Mäki, Olli Rappe, Sauli Sipilä, and Toni Valjus.

I wish to thank the Department of Industrial Engineering and Management for providing an excellent environment for research. Thank you, my friends and colleagues at Aalto University—to name a few: Robert van der Have, Suvi-Tuuli Helin, Nina Henriksson, Pardeep Maheswara, Dr. Juri Matinheikki, Professor Markku Maula, Nooa Nykänen, Sarri Nykänen, Dr. Chris Rowell, Maria Tikka, Dr. Roxana Turturea, Professor Eero Vaara, Joosef Valli, and Ruben Vicente-Saez. I would also like to thank Juha-Antti Lamberg for trusting me and giving me my first academic job at the University of Jyväskylä.

Then, I would like to thank everyone in the Digital Disruption of Industry project that the Strategic Research Council of Finland funded. Thank you, Dr.



Kimmo Karhu, Suvi Lavinto, and Professor Emeritus Martti Mäntylä for creating a great platform for interaction among like-minded scholars around Finland.

I am grateful for the financial support provided by the Niilo Helander Foundation, The Finnish Science Foundation for Technology and Economics KAUTE, the Finnish Foundation for Technology Promotion, and the Finnish Foundation for Share Promotion. With their support, I was able to fully focus on my research work, engage in international collaboration, and attend many rewarding conferences.

Finally, I wish to thank my family. I apologize that I am not able to explain my work in Cantonese. Especially, I would like to thank my spouse Saara Lehmusvaara for your support and letting me work on an important revision for a journal submission only one week after you gave birth to our lovely daughter Selma. I wish to show my support for my fellow Hongkongers: Do not give up—five demands, not one less!

Helsinki, June 1st, 2020  
Zeerim Cheung

# Contents

|  |    |
|--|----|
| Acknowledgments .....  | 1  |
| List of Abbreviations and Symbols .....  | 5  |
| List of Essays .....   | 6  |
| Author's Contribution .....  | 7  |
| 1. Introduction .....  | 9  |
| 2. The Relational Database as the Core of Our Analytically Structured History Approach .....   | 13 |
| 2.1 Pre-Archive Work.....  | 13 |
| 2.2 Digitizing Archival Sources.....   | 16 |
| 2.3 Managing the Sources in a Relational Database .....  | 18 |
| 2.4 Coding Structures in the Relational Database.....  | 22 |
| 2.4.1 Incident Coding.....   | 22 |
| 2.4.2 Entity-Based Coding .....  | 24 |
| 3. Essays Using Our Analytically Structured History Approach....   | 26 |
| 3.1 Essay 1: Peer Interaction and the Emergence of New Organizational Forms.....   | 26 |
| 3.1.1 Key Findings of Essay 1.....   | 26 |
| 3.1.2 Methodological Approach of Essay 1 .....   | 27 |
| 3.2 Essay 2: Asymmetric Regulation, Managerial Discretion, and Corporate Political Strategies.....   | 31 |
| 3.2.1 Key Findings of Essay 2 .....  | 31 |
| 3.2.2 Methodological Approach of Essay 2.....  | 32 |
| 3.3 Essay 3: Institutional Logics and the Internationalization of a State-Owned Enterprise: Evaluation of International Venture Opportunities by Telecom Finland 1987–1998 ..... | 34 |
| 3.3.1 Key Findings of Essay 3 .....  | 34 |
| 3.3.2 Methodological Approach of Essay 3.....  | 35 |
| 4. Discussion .....  | 39 |
| 4.1 Methodological Strengths of the Relational Database Approach.....  | 39 |

|     |  |    |
|-----|--|----|
| 4.2 | Specific Methodological Strengths of the Essays .....                    | 40 |
| 4.3 | Contribution to Historical Embeddedness of Strategy<br>Formulation ..... | 42 |
|     | References .....   | 45 |
|     | Essays .....   | 51 |

# List of Abbreviations and Symbols

|       |   |
|-------|---|
| CEO   | chief executive officer                         |
| CPS   | corporate political strategy                    |
| CSE   | Copenhagen Stock Exchange                       |
| EC    | European Community                              |
| EU    | European Union                                  |
| FASD  | Finnish Association of Securities Dealers       |
| GSM   | Global System for Mobile Communications         |
| HSE   | Helsinki Stock Exchange                         |
| IB    | international business                          |
| MNC   | multinational company                           |
| NMT   | Nordic Mobile Telephony                         |
| OCR   | optical character recognition                   |
| OM    | Swedish option exchange (Optionsmäklarna)       |
| PDF   | portable document format                        |
| PTL   | Post and Telecom Finland (Posti- ja telelaitos) |
| SDA   | Securities Dealers Association                  |
| SEAQ  | Stock Exchange Automated Quotation              |
| SOE   | state-owned enterprise                          |
| SOM   | Finnish Option Market (Suomen Optiomeklarit)    |
| SOMNC | state-owned multinational company               |
| SSDA  | Swedish Securities Dealers Association          |
| SSE   | Stockholm Stock Exchange                        |
| TF    | Telecom Finland                                 |

# List of Essays

This doctoral dissertation consists of a summary and of the following essays, which are referred to in the text by their numerals.

- 1.** Cheung, Zeerim; Gustafsson, Robin; Nykvist, Rasmus. Peer interaction and the emergence of new organizational forms. Working paper. 46 p.
  
- 2.** Aalto, Eero; Cheung, Zeerim; Gustafsson, Robin. Asymmetric regulation, managerial discretion, and corporate political strategies. An abridged version of the paper published in the Best Paper Proceedings of Academy of Management Annual Meeting 2018, Chicago, USA, August 2018. <https://doi.org/10.5465/AMBPP.2018.225>. 39 p.
  
- 3.** Cheung, Zeerim; Aalto, Eero; Nevalainen, Pasi. Institutional logics and the internationalization of a state-owned enterprise: Evaluation of international venture opportunities by Telecom Finland 1987–1998. An abridged version of the previous version of the paper published in the Best Paper Proceedings of Academy of Management Annual Meeting 2019, Boston, USA, August 2019. <https://doi.org/10.5465/AMBPP.2019.6>. Revised and resubmitted (3rd round) to the Journal of World Business in January 2020. 55 p.

# Author's Contribution

## **Essay 1:** Peer Interaction and the emergence of new organizational forms

Project lead. All authors contributed to the development of the research idea. Main responsibility in all aspects of the study. Robin Gustafsson contributed significantly to the introduction, theory, and discussion sections. Rasmus Nykvist was mainly responsible for the analysis of the Swedish case and contributed significantly to the methods section.

## **Essay 2:** Asymmetric regulation, managerial discretion, and corporate political strategies

Second author, with Eero Aalto being the project lead. All authors contributed to the development of the research idea. Main responsibility in data collection, management, and developing the relational database for this study. Significant contribution to all other aspects of the study, such as the writing of the theory, method, findings, and discussion sections.

## **Essay 3:** Institutional logics and the internationalization of a state-owned enterprise: Evaluation of international venture opportunities by Telecom Finland 1987–1998

Project lead. All authors contributed to the development of the research idea. Main responsibility in all aspects of the study. Eero Aalto contributed significantly to the methods and findings sections. Pasi Nevalainen contributed significantly to our understanding of the historical context.



# 1. Introduction

*All behavior is historical. It takes place over time and in particular contexts. Moreover, contexts themselves, the social relations and institutional forms, rules, and processes in which we exist, are subject to historical change. Although these statements would seem to be unexceptionable, most of our mainstream journal articles are written as if they apply to some disembodied abstracted realm.*

Zald (1996: 256)

For the last 25 years, there have been increasing calls to bring history back to management and organization research (Kieser, 1994; Kipping & Üsdiken, 2014; Suddaby & Foster, 2016; Zald, 1996) and, more specifically, to strategy (Argyres et al., 2020; Ingram, Rao, & Silverman, 2012; Kahl, Silverman, & Cusumano, 2012; Vaara & Lamberg, 2016), international business (IB) (Buckley, 2009, 2016; Burgelman, 2011; da Silva Lopes, Casson, & Jones, 2019; Jones & Khanna, 2006; Verbeke & Kano, 2015), and entrepreneurship research (Forbes & Kirsch, 2011; Wadhvani & Jones, 2014; Wadhvani, Kirsch, Welter, Gartner, & Jones, 2020). Especially during the last few years, there have been special issues in leading management journals about historical perspectives—the Academy of Management Review in 2016, Organization Studies in 2018, the Strategic Management Journal in 2020, and a forthcoming special issue in the Strategic Entrepreneurship Journal. However, the prevalence of articles employing historical approaches has been limited in recent management research outside of special issues (Perchard, MacKenzie, Decker, & Favero, 2017).

The methodological divide between history and management research has been identified as the main barrier preventing wider use of historical methods (e.g., Buckley, 2009; Jones & Khanna, 2006; Rowlinson, Hassard, & Decker, 2014). According to Perchard et al. (2017: 904), this is due to “the perception of historians being anti-theory and of having methodological shortcomings; and business and management scholars displaying insufficient attention to historical context and privileging of certain social science methods over others”. There is also a preference for having history incorporated as part of the theoretical model, such as ‘uses of the past’ (Wadhvani, Suddaby, Mordhorst, & Popp, 2018), which Kipping and Üsdiken (2014) termed ‘history in theory’, to



justify the use of historical data and methods (Godfrey, Hassard, O'Connor, Rowlinson, & Ruef, 2016; Vaara & Lamberg, 2016).

However, historical approaches in studying organizations, i.e., drawing extensively on historical sources, methods, and knowledge to analyze organizations' embeddedness in the broader historical context (Maclean, Harvey, & Clegg, 2016), have multiple strengths, regardless of whether history is integrated as part of the theory. Historical approaches enable contextualization across time and space, such as providing a comparative analysis of historical developments of institutional structures across geographical regions over extended period of times (e.g., the stock exchange industry in Finland and Sweden in Essay 1), uncovering historical path dependencies (e.g., different regulatory legacies' influence on resource positions in Essay 2), and confronting extant theories to substantially different historical conditions (e.g., changes in how international venture opportunities are evaluated in Essay 3) (e.g., Buckley, 2016; Burgelman, 2011; Kieser, 1994; Maclean et al., 2016; Rowlinson et al., 2014) and, thus, are suitable for challenging and extending theory (Argyres et al., 2019; Gibbert, Nair, Weiss, & Hoegl, 2020).

For example, Lubinski and Wadhvani (2020) use the cases of German multinational companies Bayer and Siemens, which positioned themselves as alternatives to British companies in India to appeal to the rise of the Indian nationalism movement after World War I, to extend our understanding of the role of nationalism in international strategy, as nationalism is on the rise again today. In this study, a remote historical context is used to extent the theoretical understanding of a phenomenon unfolding today.

In another example, da Silva Lopes et al. (2019) use nineteenth-century examples of multinational companies that have flexible network structures with low hierarchy to demonstrate that such organizational forms were historically common. Thus, the study employs historical cases to challenge the contemporary theoretical claims that emergence of flexible multinational companies with low hierarchies is a new phenomenon that emerged due to today's increasing legal, political, and economic risks.

The aim of this summary of the dissertation is to present our analytically structured history approach using a relational database that can fulfil both the need for theoretical contribution required by strategy research and historical veracity required by historical research. The relational database is developed by the DIGIHIST consortium, which was formed by business historians and management scholars from four universities and a research institute in Finland and Sweden to study the historical embeddedness of strategy formulation. The consortium was founded in 2016, and the use of the database is governed by the board of the consortium in accordance with the consortium agreement. For example, the agreement defines the principles regarding the use of the database and how researchers can gain the right to use the database. I have acted as a board member of the consortium since 2017 and as the main administrator of the relational database since 2019. During my doctoral studies, I have taken a leading role in developing the processes for the archival source collection,

digitization, and analysis within the database, particularly in the Finnish context.

By historical embeddedness, I refer to the roles of sociohistorical conditions (e.g., Finland's constant need to balance between the East and West as a neighbor of the Soviet Union), events (e.g., fall of the Soviet Union), and change processes (e.g., liberalization of the telecommunications markets) in shaping strategy formulation and decision-making (Vaara & Lamberg, 2016). Thus, unlike Vaara and Lamberg (2016), who emphasize history to theory in their definition of historical embeddedness, I advocate both history to theory, i.e., history used as evidence to develop, elaborate, and test theory, and history in theory, i.e., history is an integral part of the theoretical model itself (Argyres et al., 2019; Kipping & Üsdiken, 2014).

In analytically structured history, theoretical constructs guide the search of archival sources and the subsequent narrative construction that is driven by theoretical concepts and causation (Rowlinson, Hassard, & Decker, 2014). In our analytically structured history approach, we follow the guidelines presented by Rowlinson et al. (2014). First, we conduct empirical coding of the sources and narrative construction based on coding that focuses on accurate reconstruction of the historical events relevant for the strategy phenomenon of interest within the database. Second, we conduct theoretical conceptual development that is grounded on the incident coding and resulting historical narrative, which are also within the database. Finally, we iterate between the historical narrative and the emerging theoretical concepts to elaborate on the extant theories in a way that is historically grounded (Ketokivi & Choi, 2014).

In our narrative construction and conceptual analysis, we focus on primary sources, especially social texts that are produced as part of day-to-day organizational activities, such as board and management minutes and their attachments. These are complemented with primary narrative texts that are created to convey a message to certain audiences, such as annual reports and internal magazines, but secondary sources, such as books, research articles, and newspaper articles on the contexts of interest, are also used. This combination of social and narrative texts that represents the different perspectives of various actors increases the credibility of our historical interpretations by reducing the impact of subjectivity ingrained in a single type of source, as social texts are reliable reflections of matters internal to organizations and narrative texts show how organizations represent themselves (Lipartito, Bucheli, & Wadhvani, 2013). Finally, we also conducted oral history interviews, which enable further triangulation of the evidence (Kipping, Wadhvani, & Bucheli, 2014; Yates, 2014).

A relational database constructed around digitized archival sources forms the core of our analytically structured history approach. The dual integrity of historical veracity, i.e., narrative construction that is based on a strict evaluation of the quality of the evidence, and conceptual rigor, i.e., conceptual analysis that advances theory, as conceptualized by Maclean et al. (2016), is the guiding principle of the design and continuous development of the relational database. This sets strict standards for the research design regarding the digitization of

archival sources, the structuring and the coding of sources within the relational database.

Historical veracity is ensured by digitization of entire archival sets and detailed coding of each document, which enables tracing of each digitized document to its original physical archival folder. Further, evaluation of the quality of the evidence (source criticism), narrative construction and conceptual analysis are also performed using the database with relations between the codes and sources. This enables rigorous conceptual analysis by linking the emerging theoretical concepts to diverse historical sources, as such, source transparency is apparent in both the historical and conceptual claims (Kipping et al., 2014).

Although the essays of the dissertation represents analytically structured history, our relational database supports alternative ways of doing historical organization studies, both in narrative construction and theoretical analysis (Maclean et al., 2016; Vaara & Lamberg, 2016). For example, the corporate history research strategy proposed by Rowlinson et al. (2014), which focuses holistically on its subject without the specific focus driven by a theoretical focus, can be conducted using our database by narrative construction based on the detailed coding of events and linking them to the original sources. The relational database enables the researcher to manage larger archival sets and have more flexibility in moving between sources and narrative construction. But most importantly, I see that the parallel processes of narrative construction and theoretical analysis, such as the Gioia method (Gioia, Corley, & Hamilton, 2013), process study methods (Langley, 1999), and multiple case study method (Eisenhardt, 1989; Eisenhardt & Graebner, 2007), can fulfil the requirement of dual integrity of historical veracity and conceptual rigor.

Next, I present the process to build a relational database that forms the core of our analytically structured history approach. Then, I use the three essays of the dissertations as research examples to demonstrate the narrative construction and conceptual development processes that can be employed using our analytically structured history approach. The final section concludes and highlights how our approach can contribute to strategy research and presents the limitations of the approach.

## 2. The Relational Database as the Core of Our Analytically Structured History Approach

The use of a relational database as the core of our analytically structured history approach provides several advantages to improve the methodological rigor and efficiency of historical methods in management and strategy research. Thus, this responds to the critique posed by management scholars of historians as being methodologically opaque (Perchard et al., 2017). First, the database approach enables transparent use of sources, in which each empirical and theoretical claim can be traced back to the original archival sources. Second, the approach enables real-time collaboration, which enables comparative analysis and constant comparison in the coding and analysis of sources. This, in turn, enables quick iterations of coding practices and testing for inter-coder reliability. Third, the approach is efficient, as the digitized archival sources are always available and searchable for all collaborators. This approach enables the systematic use of large archival sets. However, the benefits come with the significant initial cost of setting up the database and digitizing large archival sets, as the following guide to build such a database demonstrates (Harvey & Press, 1996).

Our analytically structured history approach using a relational database starts with pre-archive work to prioritize the archive sets to collect. Then, we systematically digitize the archival sources in the case of physical paper sources, which, in our case, was the dominant format. However, contemporary sources are often in a digital format, and many archives have their own ongoing digitization processes. Then, the digitized sources are inputted to a relational database developed by the consortium. This process includes inputting of various metadata and creating relational links between the sources, organizations, individuals, etc. However, the sources are not limited to textual sources and can also be interviews and their transcripts, photographs, and videos. Finally, coding structures were created in the database, of which some are tailored for specific studies within the project.

### 2.1 Pre-Archive Work

Before starting to digitize archival sources, it is critical to perform systematic pre-archive work, as the digitization of archives is extremely labor-intensive (Harvey & Press, 1996). Archives tend to be extensive and there is often a need

for sampling (Decker, 2013). Sampling should be based on the prioritization of the archival source types and digitization of entire sets within a source type. The prioritization process should be based on the initial research questions, phenomena of interest, and extant knowledge about the research questions and the phenomena of interest. For example, if the focus is on top management strategy formulation and the decision-making process of top management teams, meeting minutes are of high priority; thus, all top management meeting minutes and their attachments are digitized. To be able to determine what is available and of high priority to a certain context and theoretical interest, the pre-archival work should adhere to the following four-step process: 1) identifying the key actors, 2) building timelines, 3) exploring the archives, and 4) prioritization of archive records for digitization.

In step 1, we identified the key actors by conducting preliminary interviews with key individuals from the organizations and the period of interest, with researchers that have extensive knowledge regarding the cases and archives, and by searching for memoirs and company histories related to the case. Timelines can be built partly simultaneously with the first step, which is step 2. The idea of this step is to clarify the main events, such as organizational changes, regulatory processes, and the founding of competitors, to gain a chronological overview. These timelines can also be used to support the coding of the archival sources in a later stage. In step 3, the archives should be explored. First, we have to explore what is available in digital and physical formats and the accessibility of the archives. Then, we can go to the archives and explore the content. The key goal here is to identify what type of sources are available—social texts produced as part of normal organizational activities and narrative texts created for various audiences (Lipartito et al., 2013; Rowlinson et al., 2014)—for different actors and how complete the archives are.

After completing steps 1-3 with iterations, we have a list of archive records, their location and accessibility and descriptions of their content. As the fourth and final step, we prioritize the records using a three-level prioritization. Priority 1 records are records that are must-haves and core to the study. In our case of telecommunications, we were interested in top management strategy formulation during a period of regulatory and technological change (Table 1). Thus, we started from the top management and regulatory archives. After digitizing and coding the priority 1 archives, we should have a good picture of the case and the ability to conduct oral history interviews. Additionally, we should be able to determine to what extent we need to collect priority 2 records. Priority 2 archive records should offer additional insights. However, priority 2 records are where the availability of resources to digitize and code the material should be considered. Finally, the lowest priority is 3, where the records are only collected if there is a specific need for this material, such as records that would contribute to a specific research question. When conducting a comparative case study, the comparability of the archive data is also a key issue that would affect the priority levels. Table 1 depicts an initial excerpt of archival prioritization for our research project on top management strategy formulation and decision-making in Sweden's and Finland's state-owned telecommunications

monopolies during a period of technological change and deregulation of the telecommunications markets.

**Table 1.** An excerpt of a list of archives and their prioritization level, which is in parenthesis.

| <b>Archives of the incumbents</b> |  |  |  |
|-----------------------------------|--|--|--|
| <b>Type of archival source</b>    | <b>Telecom Sweden</b>  | <b>Post and Telecom Finland</b>  | <b>Value</b>   |
| Board and management minutes      | <ul style="list-style-type: none"> <li>• Televerket Management minutes 1977–93 (1)</li> <li>• Televerket Board minutes 1976–93 (1)</li> <li>• Televerket Technological department minutes 1977–83, 1983–90 (1)</li> <li>• Telia board minutes 1993–(1)</li> <li>• Board basis 1977–93 (2)                             <ul style="list-style-type: none"> <li>• Attachments to board meeting minutes</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>• PTL's management team meeting minutes 1979–93 (1)</li> <li>• PTL's director general team meeting minutes 1991–92 (1)</li> <li>• Suomen PT Oy's board meeting minutes 1993–98 (1)</li> <li>• Telecom Finland Oy's board meeting minutes 1994–98 (1)</li> <li>• PTL's collegium minutes 1979–93 (2)</li> </ul>  | <ul style="list-style-type: none"> <li>• How actively did the board members drive/hinder changes within the organization and outside the organization (e.g., government, international forums, alliances)?</li> <li>• What external pressure to change was discussed and to what extend?</li> <li>• Role of labor union representatives on the board.</li> <li>• The dynamics between Post and Telecom units.</li> <li>• What are the key events each year?</li> <li>• Who were the key decision makers each year?</li> <li>• How were strategic decisions made? How significant a role did the different members play?</li> </ul> |
| Annual reports                    | <ul style="list-style-type: none"> <li>• Televerket 1977/78–93 (1)</li> <li>• Telia 1993– (1)</li> </ul>   | <ul style="list-style-type: none"> <li>• PTL 1980–92 (1)</li> <li>• Suomen PT Oy 1993–97 (1)</li> <li>• Telecom Finland Oy 1994–98 (1)</li> <li>• Sonera Oyj 1998–99 (1)</li> </ul>  |  |
| Other                             | <ul style="list-style-type: none"> <li>• Strategy document (1)</li> <li>• Three year economic and strategic plans 1984–94</li> <li>• Group plans 1984–88</li> <li>• Department of strategy mixed documents</li> <li>• Correspondence (2)                             <ul style="list-style-type: none"> <li>• Board</li> <li>• Director General</li> </ul> </li> </ul>   | <ul style="list-style-type: none"> <li>• PTL's archives related to the organizational changes (1)                             <ul style="list-style-type: none"> <li>• Mixed set of documents categorized by topic from 1981–93</li> <li>• Covering the period of the first official preparation to create a public corporation to incorporation, but not the partial privatization process</li> <li>• Contains some overlapping material with other archives</li> </ul> </li> </ul> |  |
| <b>Regulatory archives</b>        |  |  |  |
| Regulatory documents              | <ul style="list-style-type: none"> <li>• Government decisions</li> </ul>   | <ul style="list-style-type: none"> <li>• Laws, acts (1)</li> <li>• Propositions (1)</li> </ul>   | <ul style="list-style-type: none"> <li>• The timeline of the official</li> </ul>   |

|                               |   |  |  |
|-------------------------------|---|--|--|
|                               | <ul style="list-style-type: none"> <li>regarding Televerket 1981–93 (1)</li> <li>Hearings (1)</li> <li>Propositions (1)</li> </ul>  | <ul style="list-style-type: none"> <li>Committee ('valiokunta', 'utskott') hearings (1)</li> </ul>   | <ul style="list-style-type: none"> <li>deregulation process</li> <li>Opinions of different interest groups in hearings</li> <li>Alternative scenarios in the deregulation process</li> </ul>   |
| Working groups and committees | <ul style="list-style-type: none"> <li>SOU 1990: 27 State official investigation regarding Post &amp; Telecom (1)</li> <li>SOU 1992: 70 State official investigations regarding the new Tele law (1)</li> </ul> | <ul style="list-style-type: none"> <li>State's public corporation committees' archives (1)</li> <li>Working group and committee ('komitea') reports (1)</li> </ul>   |  |
| <b>Labor union archives</b>   |   |  |  |
| Board minutes                 | <ul style="list-style-type: none"> <li>ST – Statsanställdas förbund – State Employees Union 1977–93 (2) <ul style="list-style-type: none"> <li>Telecom section of the union</li> </ul> </li> </ul>              | <ul style="list-style-type: none"> <li>Teleliitto ry – Tele Union 1983–94 (2)</li> <li>Tietoliikenneliitto TLL ry – Telecommunications Union 1993–98 (2)</li> <li>Postiliitto ry (Post Union) (3)</li> </ul> | <ul style="list-style-type: none"> <li>Can these questions be answered by incumbent and regulatory archive material?</li> <li>Different unions' actions and opinions related to deregulation, incorporation and privatization.</li> <li>Post vs. Telecom unions.</li> <li>Union representing workers vs. highly educated employees.</li> </ul> |
| Correspondences               |   | <ul style="list-style-type: none"> <li>Correspondences with PTL and authorities (Tele Union) 1983– (3)</li> </ul>  |  |

## 2.2 Digitizing Archival Sources

Digitizing the archival sources provides three major advantages for researchers. First, it makes the archival sources available for many researchers at any time, which enables collaboration among researchers and removes the limitations of time and place for archival work. Second, the archival sources become machine readable and searchable, thus allowing researchers to quickly identify critical sources related to specific research interests either by searching for keywords or applying computational techniques, such as topic modeling, to identify major themes in a large text corpus (Schmiedel, Müller, & vom Brocke, 2019). Third, machine readability also enables efficient quantification of textual data that can provide further support to historical and conceptual claims (Burgelman, 2011).

The digitization process can be separated into four steps as follows: 1) photographing single pages, 2) batch editing of photographs (e.g., adjusting

contrast, which improves the optical character recognition quality), 3) combining photographs into multipage documents in portable document format (PDF), and 4) running optical character recognition (OCR) to convert PDFs into machine-readable text. This process can be performed in several ways, e.g., steps two and three can be reversed and performed either in or outside the archives. However, I will present the process used in the consortium, which is based on multiple rounds of trial and error.

We photographed archival documents using smartphones and the TurboScan scanner application. The main reason for selecting this solution over using a scanner was the speed to quality ratio, as a single person can scan and process up to 800 pages per day with this approach. We tried various applications that could photograph, batch edit, combine multiple photographs into single PDFs, and even perform OCR. We tried performing the entire process in the archives; however, the OCR processing with mobile applications was too slow during the limited opening hours of archives. Then, we used the limited time we had in the archives for photographing only, which resulted in up to 1 500 pages per day by a single person. However, we could not process the photographs fast enough. In the end, the most efficient way was to photograph, batch edit, and combine to PDFs in the archive using TurboScan and run the OCR process outside the archives.

For the OCR, we used ABBYY FineReader Pro for Mac, which has broad language support, including dictionaries. As the output of the OCR process, we chose to have both PDFs with a machine-readable layer embedded and plain text files, which removes all formatting. We also reduced the quality of the output PDFs to decrease the file size, as input PDFs are of high quality. We also tested OmniPage Ultimate and Adobe Acrobat Pro to OCR our archival documents but found that ABBYY's quality was significantly better than Adobe's and slightly better than OmniPage's with a significantly lower price point. Png (2019) came to the same result. Still there are some shortcomings with ABBYY that needs to be considered. The quality of the input file is the most important determinant of the output quality. However, the complicated layout structures of the documents, e.g., internal magazines and PowerPoint slides with varying layouts of multiple columns, are more challenging for ABBYY to process.

There are several issues to consider while working in the archives and to achieve the best possible OCR result. The lighting condition is an important factor for OCR quality, and the aim should be to achieve an even exposure. For example, natural light was a challenge for us, as the lighting condition changed during the day with the motion of the sun. Therefore, the photographing of archival sources should be done in spaces with even artificial light and minimal natural light. Different types of papers have different reflecting properties. For example, the glossy paper used in magazines and photographs is more reflective than typical print paper, which make them challenging to photograph. The most problematic archival documents were thick bindings of several hundred pages. The photographs from thick bindings resulted in partially bent text, which turned out to be very challenging for the OCR software to interpret. Finally, it is important to keep a progress diary of each of the four steps to ensure quality.

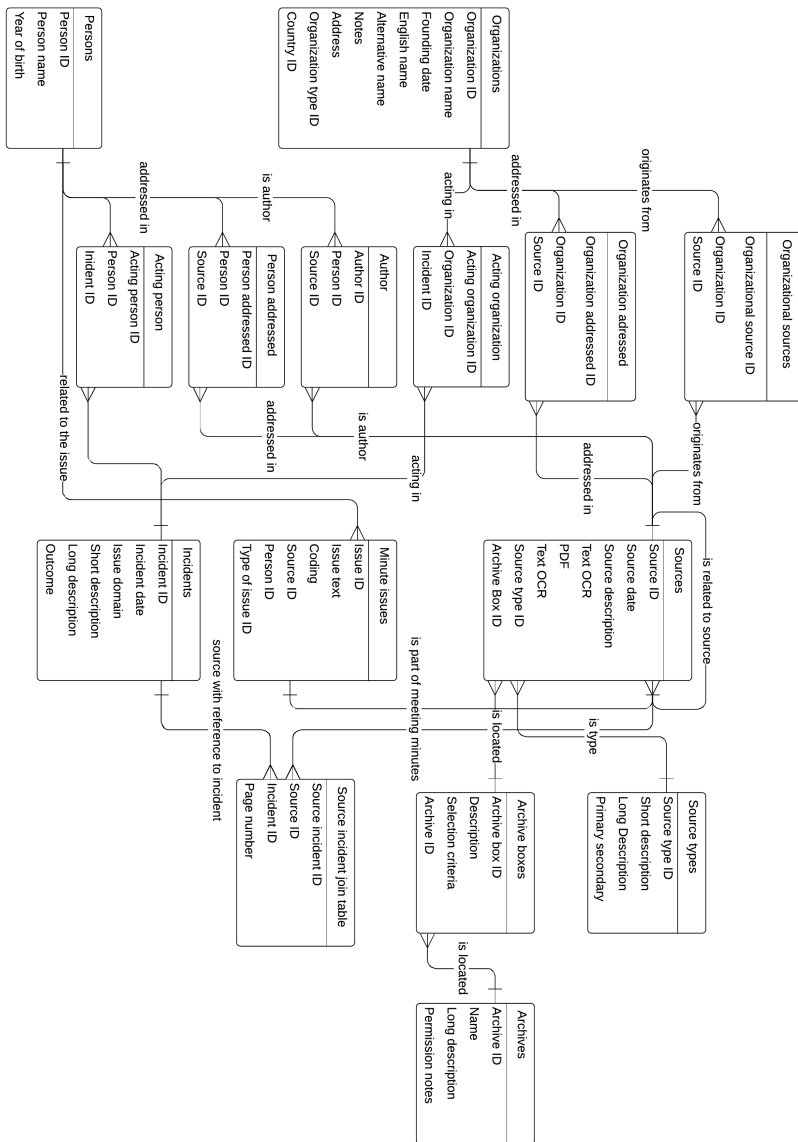


## 2.3 Managing the Sources in a Relational Database

All the digitized archival sources and other types of sources are then inputted in a relational database designed and built by the members of the DIGIHIST consortium, inspired by Murmann (2010). Although various database solutions, such as Microsoft Access and other SQL solutions, would be suitable for the task, we chose FileMaker, as it is user-friendly and enables quick implementation of new historical and conceptual analytical structures for individual research paper projects. Additionally, the server management is relatively straightforward, which allows real-time collaborative use of the database, daily back-ups of the database, and user-friendly security management.

We adopted a source-oriented approach in building our database, in which the original text of sources forms the core of the database (Harvey & Press, 1996). With this approach, we can decide on how we categorize our sources and create specific analytical structures for specific research projects. This is in contrast to the method-oriented approach, in which original sources are converted into well-defined codes within the database for specific predetermined analytical processes (Harvey & Press, 1996).

Key tables of the database and their fields are presented in the entity-relationship diagram depicted in Figure 1 (note: only a small subset of the entire database is depicted to maintain clarity). The diagram shows the three key tables in the middle: Sources, Minute issues, and Incidents. Sources and Minute issues are discussed more thoroughly in this section and Incidents in section 2.4.1. Figure 1 also depicts the most important tables to which the three key tables are linked, i.e., Organizations, Persons, Source types, Archive boxes, and Archives. The relationships between tables are visualized using Crow's foot notation and many-to-many relationships are implemented using join tables. For example, a source can have multiple persons as author and a person can be an author of multiple sources, thus, there is a many-to-many relationship between Sources and Persons. The Author table is the join table that resolves the many-to-many relationship in to two one-to-many relationships.



**Figure 1.** An entity-relationship diagram depicting the key tables and their fields of our database.

The database table for archival sources is central to the database structure, as the other tables and relations between tables are created around it (see Table 2 and Figure 2). Each source is inputted in the database with the OCR processed PDF (1) and raw text (2) together with various metadata, such as the date the source was created (3), the type of source (4), the physical archive location of the source (5), the organizations (6) and persons (7) linked to the source, other related sources (8), such as attachments to board minutes, etc.

**Table 2.** List of key fields and relationships to other tables for the archival source database table. The values of the fields and relations in the archival source presented in Figure 2 are used as an example. (The numbers in parentheses are referred to in the text.)

| <b>Key fields</b>                       | <b>Description</b>   | <b>Example in Figure 2</b>  |
|---|--|---|
| Source ID                               | Unique identifier of the source in the database.   | 12008   |
| PDF (1)                                 | Photos of the source converted into PDF.   | [PDF]   |
| Text OCR (2)                            | The raw text generated by the OCR software from photographs of the source,               | 1. Tutkimus- ja kehityssäätiön käyttöpääoman korotus [...]  |
| Source date (3)                         | Date the source is created.  | Feb 8 1995  |
| Source description                      | Short description of the source, e.g., title of the source.                              | Minutes, Telecom Finland Oy, B-Management team 4/1995   |
| <b>Key relationship to other tables</b> | <b>Description</b>   | <b>Example in Figure 2</b>  |
| Source type (4)                         | Type of source.  | Management minutes  |
| Archive box (5)                         | Specific box or folder where the source is located.                                      | B-Management Team meeting minutes and memos Jan 9–May 29 1995   |
| Archive (5)                             | Archive where the source is located.   | Sonera archive  |
| Organizations (6)                       | Organization(s) from which the source originates; organizations addressed in the source. | Post and Telecom Finland  |
| Persons (7)                             | Author(s) of the source; persons addressed in the source.                                | [Anonymized]  |
| Sources (8)                             | Related sources, e.g., attachments to management minutes.                                | Attachment: B-Management Team meeting 4/95: meeting memo from meeting with the Ministry of Transport [Many other attachments] |

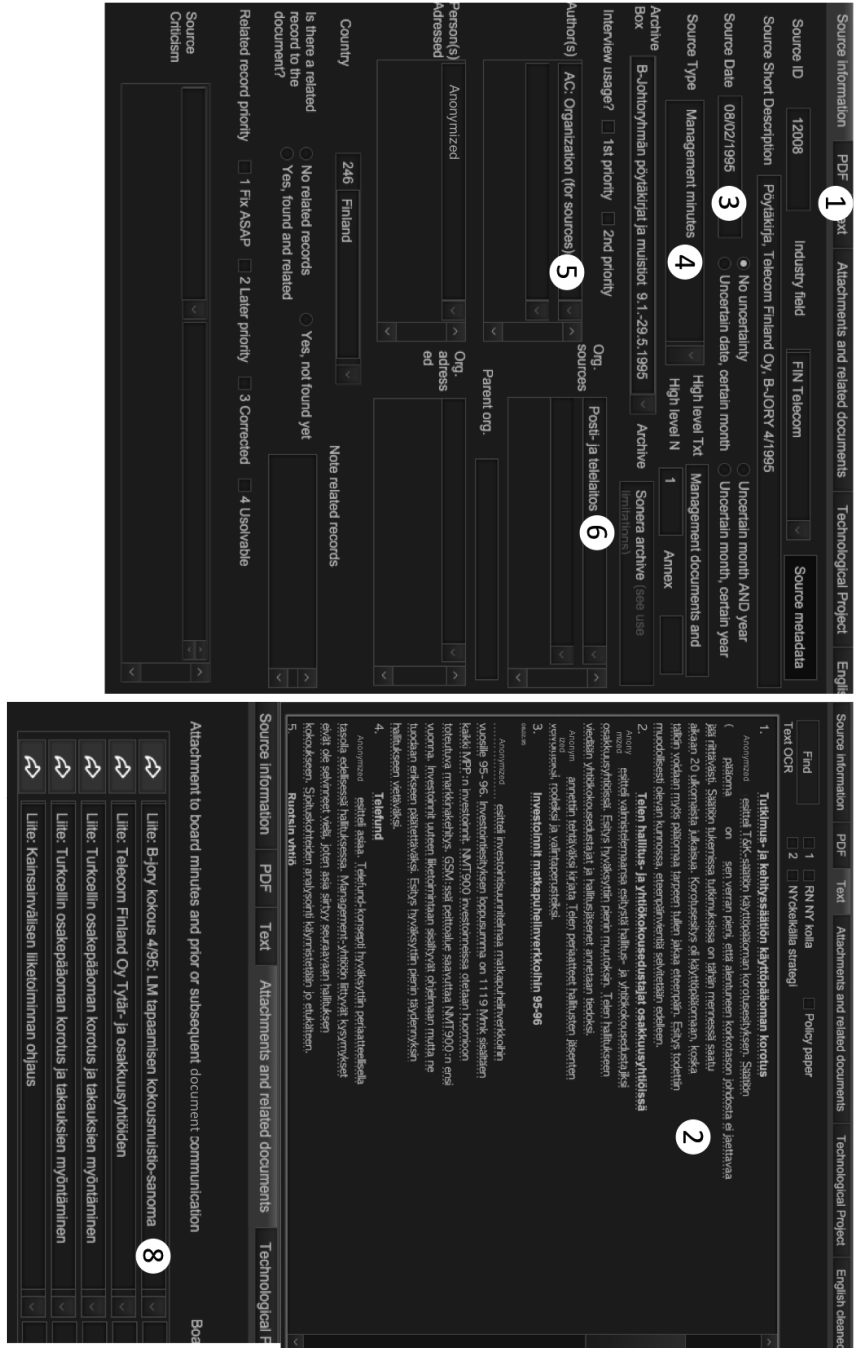


Figure 2. An example of an archival source in the relational database (the numbers are referred to in the text).

Certain selected source types are further coded at a more granular level. This is especially suitable for the serial source types that contain multiple topics, such as meeting minutes and internal magazines. For example, we created a database table for issues in top management meeting minutes (1) (Figure 3). This issue

data is then further coded by creating relations to the original meeting minutes (2), to persons (3) related to the issue, and type of issue (4), such as presentation, discussion, or decision issue. This enables the analysis of how issues progress and the importance of different themes in the top management team meetings over time.

The screenshot displays a database interface with the following elements:

- Header:** Source ID: 12008, Source date: 08/02/1995, Source short description: Pöytäkirja, Telecom Finland Oy, B-JORY 4/1995 (2).
- Table Headers:** Technology project discussed in source, Board minute issue, Board minute decision/outcome, Attachments name, Reporting person primary (1st line), s
- Entry 1 (1):**
  - Issue ID: 5096
  - Title: 1. Tutkimus- ja kehityssääntöjen käyttöpäätöksen korotus
  - Description: Anonymized n esitteli TÖK-sääntöjen käyttöpäätöksen korotusesityksen. Sääntöjen ( päätöksiä on sen verran pieni, että alentuneen korkotason johdosta ei jaettavaa jää riittävästi. Sääntöjen tukemissa tutkimuksissa on tähän mennessä saatu aikaan 20 ulkomaista julkaisua. Korotusesitys oli käyttöpäätöksiä, koska tällöin voidaan myös päätöksiä tarpeen tullen
  - Reporting person: Anonymized (3)
  - Type of issue: Presentation (4)
- Entry 2 (1):**
  - Issue ID: 5097
  - Title: 2. Telen hallitus- ja yhtiökokousedustajat osakkuusyhtiöissä
  - Description: Anonymized esitteli valmistelemaansa esitystä hallitus- ja yhtiökokousedustajiksi osakkuusyhtiöissä. Esitys hyväksyttiin pienin muutoksin. Telen hallitukseen viedään yhtiökokousedustajat ja hallitusjäsenet annetaan tiedoksi. [Anonymized], annettiin tehtäväksi kirjata Telen periaatteet hallitusten jäsenten velvoitteiksi, rooleiksi ja valintaperusteiksi.
  - Reporting person: Anonymized (3)
  - Type of issue: Presentation (4)

**Figure 3.** An example of management meeting minute issues in the relational database (the numbers are referred to in the text).

## 2.4 Coding Structures in the Relational Database

### 2.4.1 Incident Coding

The main coding structure in the database to support narrative construction and conceptual development is an incident database table, which enables the tracking of how events, i.e., sequences of related incidents, evolve over time based on archival sources (Figure 4). Here, the idea is to go through the archival sources to code qualitative descriptions (1) of discrete incidents or occurrences that happened on a specific date (2) (Van de Ven & Poole, 1990). Then incidents are linked to other sources (3) that mention the specific incident and organizations (4) and persons related to the incident (5). This incident coding process requires clearly defined coding rules to specify what should be coded from the sources. We used sensitizing categories (6), which are defined based on the existing literature and historical understanding, to guide the coding (Glaser & Strauss, 1967). The list of incidents only forms the skeleton of the narrative, but the various types of sources linked to the incidents enable

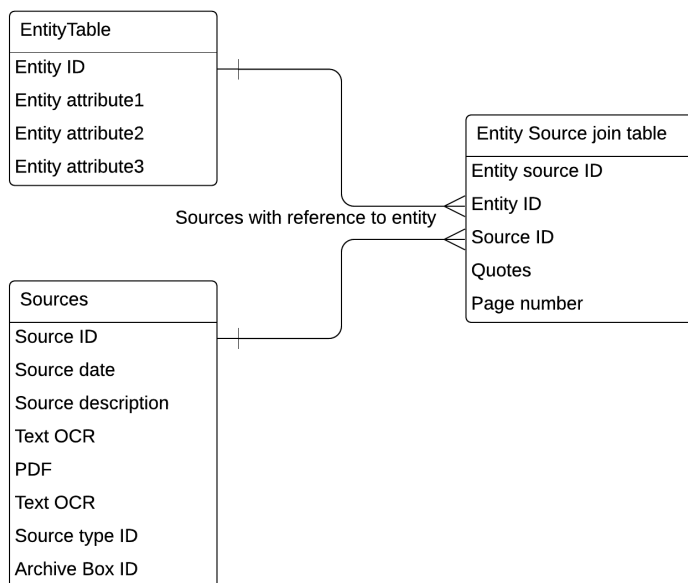
triangulation of the sources created for different purposes and audiences, which, in turn, can be interpreted against the historical context to turn the skeleton of a list of incidents into a detailed, historically informed case description (Kipping et al., 2014).

The screenshot displays a complex data entry form for incident coding. It is organized into several vertical panels. The top panel, labeled 'Incident', contains fields for 'Incident ID' (1058), 'Incident Date' (15/09/1994), and 'Incident description' (Incident short description, Incident long description). Below this is the 'Sources' panel, which includes 'Incident ID' (2306), 'Sources' (Kokous, Avopaperivälittäjien hallitus, 9/94), and 'Page number' (5). The 'Discursive claims' panel features 'Incident ID' (3076), 'Sources' (Interview with HSE former C, Anonymized, Round 1), and 'Page number' (5). The 'Strategies' panel shows 'Incident ID' (Anonymized) and 'Page number' (5). The 'Location' panel has 'Incident ID' (Anonymized) and 'Page number' (5). The 'Translation' panel includes 'Incident ID' (Anonymized) and 'Page number' (5). The 'Research No.' panel lists 'Incident ID' (Anonymized) and 'Page number' (5). The interface also includes various checkboxes and dropdown menus for coding purposes.

**Figure 4.** An incident coding example in the relational database (the numbers are referred to in the text).

### 2.4.2 Entity-Based Coding

We have also developed an entity-based coding structure. By entity, we refer to repetitive subprocesses undertaken by the focal organization, such as technology (e.g., 2<sup>nd</sup> generation mobile technology), products and services (e.g., a prepaid mobile telephone subscription product), or business ventures (e.g., international ventures, see section 3.3.2 for an international venture example of entity-based coding). The entity-relationship diagram presented in Figure 5 shows how an abstract entity-based coding structure can be developed in the database. For example, individual international ventures are subprocesses of the corporate level internationalization process, and an international venture portfolio is the outcome. As such, each type of entity of interest requires its own set of database tables with its own key fields (entity table in Figure 5), for example, the geographical target, partners, and product or service provided for an international venture entity. All entities of the type of interest should then be identified from the sources, thus creating a list of entities, e.g., a list of ventures. Then, all the sources related to each entity should be identified by, e.g., searching the database—enabled by the OCR processing—with a list of keywords related to the entity. Thus, a list of sources is created for each entity, which can be analyzed across time, source type, and related to the historical context, enabling the construction of a narrative for each entity (Kipping et al., 2014). Finally, the analysis of the subprocesses together can be used to develop a contextualized understanding of the corporate level process.



**Figure 5.** Entity-based coding structure depicted using an entity-relationship diagram.

Finally, the strength of the relational database approach, especially using FileMaker (Murmah, 2010), is the flexibility to create new coding structures for narrative construction and conceptual development. New database tables,

the relations between tables, and user interfaces can be quickly created and customized for specific studies. However, it is important to be mindful that as the number of database tables and user interfaces accumulates to support various analysis, the maintenance and administration of the database becomes more complex. This accumulating complexity would increase the cost of training new users to use the database, and end-users would need more support for database usage, which increases the workload of the database administrator.



## 3. Essays Using Our Analytically Structured History Approach

### 3.1 Essay 1: Peer Interaction and the Emergence of New Organizational Forms

#### 3.1.1 Key Findings of Essay 1

In Essay 1 of the dissertation, my colleagues and I study the process of how the Stockholm Stock Exchange (SSE) and the Helsinki Stock Exchange (HSE) became the first and second for-profit stock exchanges in the world in 1993 and 1995, respectively. Thus, this is a case of the initial emergence of a new organizational form—the for-profit stock exchange—globally through organizational renewal by established organizations. To conduct an in-depth case study of the initial emergence of a new organizational form at a global level is rare in the extant research. Most extant studies focus on regional emergences or the importation of new organizational forms (Boxenbaum & Battilana, 2005; Greenwood & Suddaby, 2006). Furthermore, this organizational form became the dominant way of organizing stock exchanges globally.

We found that the Swedish, Finnish, and other Nordic stock exchange markets had many existing interaction practices, such as regular meetings among the management of the Nordic stock exchanges, securities dealers' associations, regulators, and supervisory organizations. These interaction practices were maintained through stable periods and were employed to find joint solutions to the organizational challenges that emerged from the changes in the technological (shift from physical to electronic trading) and regulatory (deregulation of financial regulations) environments. The process of finding joint solutions resulted in common hypotheses about how the market will evolve and about a new organizational form that fits the new environment.

The main contribution of the study is in exposing peer interaction as a previously unattended process that contributes to the emergence of new organizational forms, particularly, when new organizational forms are introduced by established organizations through radical organizational renewal. Thus, we contribute to institutional theory research on the emergence of new organizational forms (Greenwood & Suddaby, 2006; Leblebici, Salancik, Copay, & King, 1991; Maguire, Hardy, & Lawrence, 2004; Tracey, Phillips, & Jarvis, 2011). Further, in addition to being a channel for the diffusion of novel ways of organizing, interactions among peers can generate technically efficient new organizational forms and prelegitimize, i.e., legitimization of an

organizational form before the emergence of the first instance of that form, such new forms, thus, lowering the barriers to initial adoption (Guler, Guillén, & Macpherson, 2002; Lee & Pennings, 2002; Strang & Soule, 1998).

As the second contribution, we study the emergence of new organizational forms by analyzing the environmental context at multiple levels (Dijksterhuis, Van den Bosch, & Volberda, 1999; Djelic & Ainamo, 1999; Lewin, Long, & Carroll, 1999; Lewin & Volberda, 1999). Instead of treating the environmental context as unique to each case, we analyze the context at three levels, which enables us to theorize how the macro and local environments interact and influence intra-organizational decision-making. The macro environment is shared by most organizations in the industry globally, and the local environment is idiosyncratic to each case. In between, there is a level of context shared by a subset of the population, i.e., socially proximate peers. Peer interaction occurs at this peer level, where the macro and local environments interact to influence the nature and content of the interaction.

### **3.1.2 Methodological Approach of Essay 1**

In this study, we collected and digitized an extensive set of archival sources from 1984 to 1998 that includes qualitative data from both countries' stock exchange fields, as follows: stock exchange organization, entrant option exchanges, financial supervisors and regulators, association of securities dealers, and media. During the analysis, the sources led to new sources, and this process resulted in 2 650 unique source documents of various types, such as board minutes, strategy documents, annual reports, correspondence, regulatory documents, and news articles. The documents were collected from various public, private, and personal archives. We also complemented the archival documents with 19 interviews per case with top-level members of various organizations in the stock exchange field, such as CEOs, directors, board members, and a former minister of finance.

We qualitatively read through and incident coded all sources regarding both cases in several rounds. The sensitizing categories—competition, international issues, organization, regulation and supervision, and technology—were defined based on the existing literature on the factors that explain why the stock exchange industry changed from dominantly non-profit to overwhelmingly for-profit (e.g., Aggarwal, 2002; Azzam, 2010; Fleckner, 2006; Gorham & Singh, 2009; Zanotti, 2012). This incident analysis yielded a total of 522 incidents for the SSE case and 373 incidents for the HSE case. Then, the cases were analyzed separately, and we constructed visual maps and timelines based on the incidents and the emergent parallel processes based on the sensitizing categories (Figure 6) (Langley, 1999). The visual maps and timelines were then compared across the two cases.

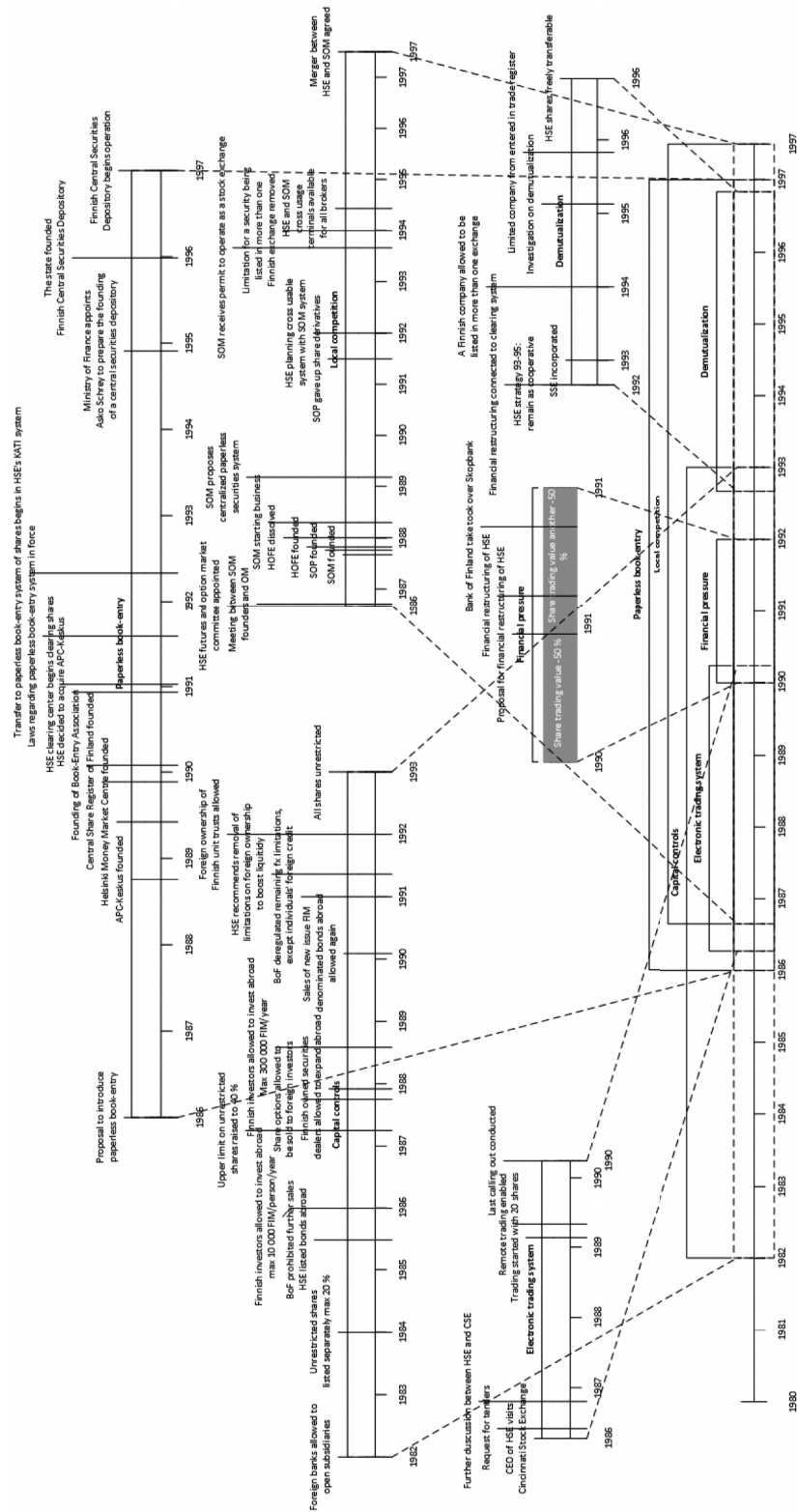


Figure 6. A parallel process timeline based on incident coding.

This analytical strategy enabled us to focus on parallel processes that unfold simultaneously at different levels of analysis and the interdependencies of the different processes (Burgelman, 2011), for example, linking the removal of capital controls, which are embedded in the broader financial regulation liberalization (macro regulatory environment), technological development in the form of electronic trading systems, and local financial pressure to the misfit between the stock exchange organization and its environment (Figure 6).

Incident coding also enables comparative analysis across space (two geographical markets) and time (from 1984 to 1998) simultaneously to disentangle multiple interacting contextual causal relationships (Buckley, 2016). In our study of stock exchanges, we mapped the different parallel processes (e.g., the adoption of electronic trading systems by the stock exchanges, deregulation of financial regulations by the governments, and the emergence of local option exchanges in the two markets) that contributed to the adoption of the for-profit organizational form across the two cases (see Figure 7 for a comparative timeline of the deregulation of restrictions to cross-border financial transactions). The analysis revealed that some processes, such as the development of electronic trading systems, were similar across cases, but others, such as financial deregulation, varied significantly; however, the outcome of the process was still similar, i.e., the for-profit mode of organization. This analysis enabled a coevolutionary perspective, which refers to multilevel, multidirectional causality, nonlinearity, positive feedback, and path and history dependence properties between the organization and its environment (Lewin & Volberda, 1999). We separate the environmental context into multiple levels—an idiosyncratic level that is unique to each case in a population of organizations, a peer level that is shared by a socially or geographically proximate subset of a population, and a global level that is shared by most cases in a population. Our analysis of the environmental context at multiple levels and the interaction effects of the different levels revealed causal heterogeneity that arises from national and historical differences (Welch, Piekkari, Plakoyiannaki, & Paavilainen-Mäntymäki, 2011).

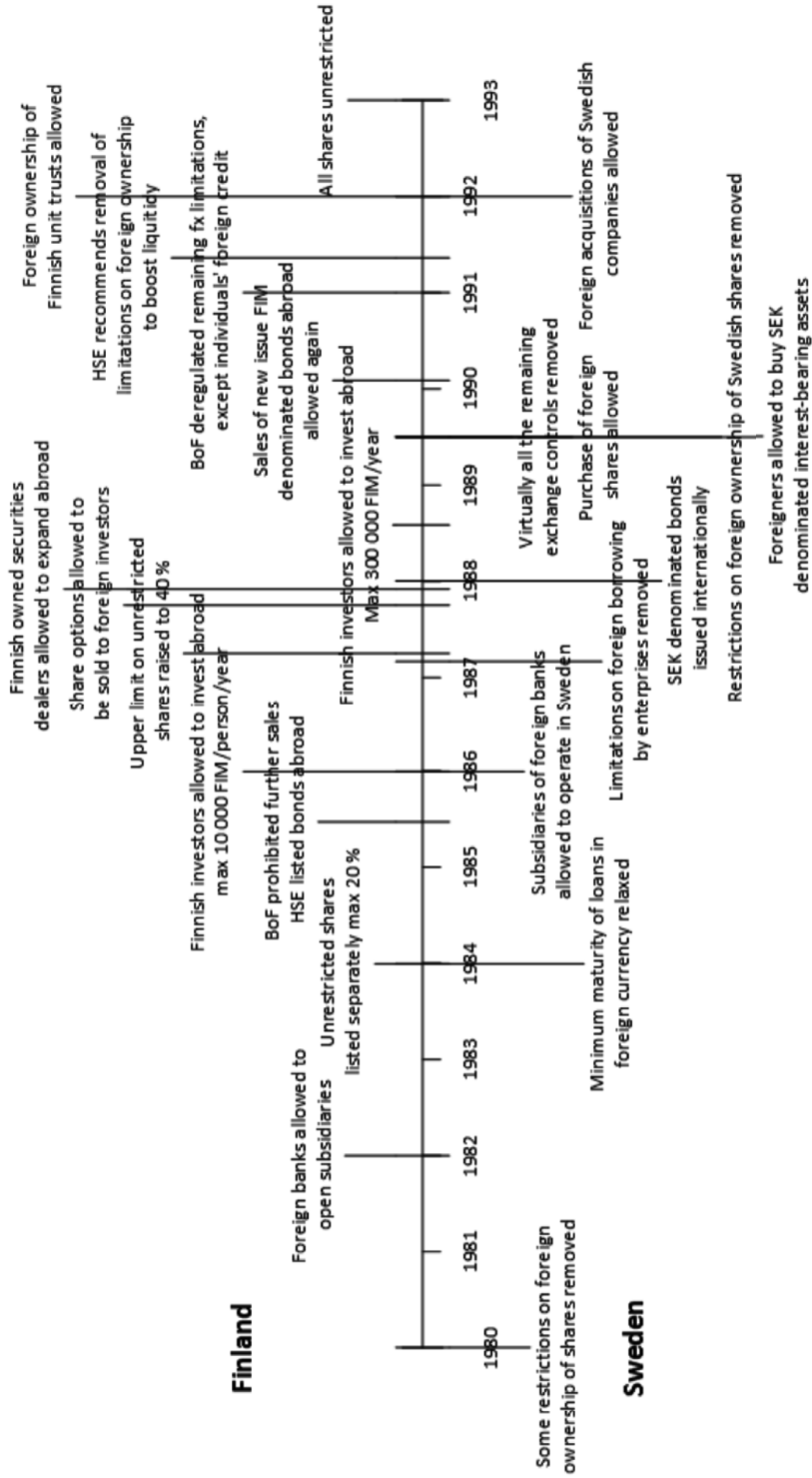


Figure 7. Comparative cross-border financial regulation timeline.

Finally, we did not treat the cases as independent from each other (e.g., Djelic & Ainamo, 1999), but allowed interactions between the cases in our analysis. This is critical, as collaboration is an important source of emergence and institutionalization of novelty (Lawrence, Hardy, & Phillips, 2002). In our comparative study, the interaction between cases became a central process that explained the initial emergence of for-profit stock exchanges. We show that, in addition to being a channel for diffusion of novel organizational forms (Lee & Pennings, 2002), interactions between socially proximate peers can be a source of novel ways of organizing, especially under market uncertainty and increased competition (Bothner, 2003), where existing interaction practices between the different actors in the two countries were employed to solve the challenges emerging from the changing environment (Furnari, 2014). In our study, there were existing cross-border interactions not only between the management of the stock exchanges but also between the regulators and supervisory agencies and the securities dealers associations. These interaction practices were used to share experiences and find solutions for the emerging local and international competition enabled by changes in the regulatory and technological environments.

### **3.2 Essay 2: Asymmetric Regulation, Managerial Discretion, and Corporate Political Strategies**

#### **3.2.1 Key Findings of Essay 2**

In Essay 2, we study how the top management team of Post and Telecom Finland (PTL) formulated its political strategies towards specific ends under different regulatory environments during the transformation of the telecommunications industry from 1981–1998. During this period, the telecommunications market changed radically from demarcated national monopolies to global and competitive markets, and from fixed to mobile telephone technology. PTL underwent a gradual shift from acting as a collegial state central department to acting as publicly listed multinational firm during this period.

Our findings reveal that limitations to managerial discretion, i.e., latitude of managerial actions (Hambrick & Finkelstein, 1987; Wangrow, Schepker, & Barker, 2015), is a key trigger for political strategizing. In particular, we identified two types of limitations to managerial discretion that arises in different regulatory conditions. First, under asymmetric regulations, i.e., market actors within the same market boundaries are subject to different regulations, limitations to managerial discretion over resources relative to competitors governed by different regulations is the central trigger of political strategizing. This triggered political strategies to remove the regulatory asymmetries that set more limitations on the focal firm's control over its resources and to maintain the limitations on competitors' control over their resources. Second, under symmetric regulations, but with unbalanced competitive preconditions due to different regulatory histories that influenced the different actors' accumulation of resources, and thus, the current resource

position, market discretion is the central trigger of political strategizing. The focal firm's political strategizing shifted from increasing its own and limiting its competitors' resource-based managerial discretion towards promoting or preventing regulations that increased its own levels of market discretion.

This study makes three contributions. First, we contribute by exposing the key corporate strategic antecedents of regulatory reform situations in which managers engage in political strategizing. Our study opens the "black box" of top management political strategizing (Hillman, Keim, & Schuler, 2004; Lux, Crook, & Woehr, 2011) by linking the rationales of corporate political strategizing to specific regulatory and market conditions that expose two generic discretion dilemmas, i.e., resource discretions and market discretions. Second, we contribute to a dynamic view of managerial discretion (Wangrow et al., 2015). A dynamic view of managerial discretion considers how managerial discretion is related to external firm environments and how these environments develop in relation to one another over time. We show that managers can actively strive to increase and even limit their own and others' levels of managerial discretion through political strategizing. Finally, we present a novel rigorous historical approach and methodological strategies for examining a large set of digitized archival data, and we use a relational database of firm top management meeting data to study top management strategizing that is temporally and contextually grounded (Vaara & Lamberg, 2016).

### **3.2.2 Methodological Approach of Essay 2**

In Essay 2, we digitized more than 50,000 pages of archival documents, including board and top management team meeting minutes, strategy documents, correspondence, regulatory documents, annual reports and internal magazines from various public and private archives. As it would be too laborious to qualitatively go through all the documents, we started our analysis from the top management team meeting minutes (764 minutes), as we focused on top management regulatory strategizing. We separated each top management meeting minutes issue in the database (3,097 issues). Then, a coauthor and I examined and independently coded all the issues that broadly relate to regulation (601 issues). We continued by categorizing the issues independently; we compared the results and identified the following four broad categories: 1) regulatory drafting processes, 2) budgeting process, 3) public service responsibilities, and 4) competition. Limitations to managerial discretion, i.e., the latitude of managerial actions (Hambrick & Finkelstein, 1987; Wangrow et al., 2015), due to regulatory dependencies emerged as an overarching theme of top management regulatory strategizing.

Next, we followed a similar incident coding process as in Essay 1. However, in this case, we focused only on the top management meeting issues identified in the previous stage, their attachments, and other regulatory documents instead of the entire digitized archival set. We used the sensitizing categories derived from historical accounts of the telecommunications industry (e.g., Clifton, Comín, & Díaz-Fuentes, 2011; Nevalainen, 2017; Thatcher, 2001), such as international, technological, regulatory, and competitive issues. In addition, we

used political strategizing and managerial discretion as sensitizing categories based on the initial understanding developed in the previous phase of the analysis. This incident coding process resulted in 544 incidents, of which 198 were broadly related to regulatory strategizing (Figure 8). Finally, we engaged in narrative writing based on the incidents reflected against our broader archival set and the prior historical understanding of the context.

| Incident Date | Da... | Source | Incident ID | Incident short description   |
|---------------|-------|--------|-------------|--|
| 26/01/1989    | 4     | 8305   | 1821        | PTL decided to send a statement to the ministry of transport due to Radiolinja company's license         |
| 04/09/1981    | 4     | 6575   | 1828        | The ministry of finance appointed the new public corporation working group                               |
| 31/05/1982    | 4     | 6575   | 1829        | Ministry of finance extended the term of the new public corporation working group to 31.10.1982          |
| 16/11/1993    | 4     | 11878  | 1830        | PTL draft statement regarding postal operations act  |
| 22/11/1993    | 4     | 11878  | 1831        | Legal adviser comment PTL's draft statement about the postal operations act                              |
| 31/05/1993    | 4     | 11879  | 1832        | Luukkainen presented at the management team meeting their position for the upcoming constitutional       |
| 17/03/1993    | 4     | 11880  | 1833        | Pekka Luukkainen assigned Pekka Leskinen to handle relationship development with the competition         |
| 12/02/1993    | 4     | 8788   | 1834        | A draft comment regarding the government proposal on the postal operations act for the parliament        |
| 03/02/1993    | 4     | 11882  | 1835        | A meeting with Ministry of Finances and Ministry of Transport and PTL to discuss the pension             |
| 20/01/1993    | 4     | 8786   | 1836        | Draft decision to request permission from Council of State for participating in a joint venture in       |
| 09/12/1992    | 4     | 11884  | 1837        | A draft proposal to Ministry of Transport regarding Valtion korjaamo Oy presented in PTL TMT             |
| 26/08/1983    | 1     | 11890  | 1839        | PTL Management team discussed and produced a draft for a statement to public corporation group           |
| 12/08/1992    | 4     | 11891  | 1841        | The Ministry of Transport request statement from PTL regarding incorporation by the beginning of         |
| 24/08/1992    | 4     | 7991   | 1842        | PTL's draft preliminary statement regarding incorporation for Ministry of Transport presented in TMT     |
| 19/05/1992    | 4     | 11893  | 1847        | Negotiations regarding 1993 state budget between ministry and PTL  |
| 13/03/1992    | 4     | 11898  | 1849        | PTL's view on competition presented in the TMT meeting   |
| 23/08/1989    | 4     | 11899  | 1850        | Management team decides to inform TVM that the employment obligation does not apply to PTL as            |
| 18/05/1989    | 4     | 10768  | 1852        | It is decided that Luukkainen, Salin and Nyfors will draft a reply to LM about NMT-investment            |
| 11/12/1991    | 4     | 7956   | 1853        | A draft of PTL's business plan for 1992-1995 presented at the TMT meeting                                |
| 04/06/1989    | 4     | 11903  | 1854        | Luukkainen informs the management team about PTL-law process in the Parliament's Finance                 |
| 10/12/1991    | 4     | 7956   | 1855        | A draft letter to Ministry of Transport regarding PTL financial plan presented in TMT meeting            |
| 07/04/1989    | 4     | 11905  | 1856        | Management team accepts the guidelines from a memo for meeting with VM leadership. PTL strives           |
| 29/03/1989    | 4     | 8316   | 1857        | LM has authorized Luukkainen to "guide" through the public corporation reform in the Parliament, and     |
| 20/11/1991    | 4     | 7953   | 1858        | A draft statement to Ministry of Transport's request of statement on Kaukoverkko Oy's application for    |
| 31/10/1991    | 4     | 7951   | 1860        | Vennamo and Luukkainen at a hearing at the State Finance Committee's Transport section discussing        |
| 18/10/1991    | 4     | 7949   | 1861        | Draft letter to the Ministry of Transport regarding the development of competition in the telecom sector |
| 27/01/1989    | 4     | 8306   | 1863        | Management team makes final changes to proposal of PTL act to be sent to LM                              |
| 26/01/1989    | 4     | 8305   | 1864        | Management team developed further statement draft to LM regarding Radiolinja Oy GSM licence              |
| 11/01/1989    | 4     | 8301   | 1865        | Management team accepted the communication and action point guidelines of PTL-law after the law          |
| 18/09/1991    | 4     | 11917  | 1866        | A draft statement by PTL regarding modifications to telecommunications and radio act in preparation      |
| 06/10/1988    | 4     | 8288   | 1868        | PTL telecommunication related labour unions have expressed their concern about changing personnel        |
| 25/08/1988    | 4     | 11922  | 1870        | Management team discussed and made change suggestions to statement about postal office working           |
| 17/06/1988    | 4     | 8275   | 1872        | Management team discusses the delay of public corporation reform, and decides to try find faster         |
| 13/05/1988    | 4     | 8171   | 1873        | Management team discusses the guidelines for management salaries. The memo for the guidelines            |
| 27/11/1990    | 4     | 11927  | 1875        | A committee for general transport subsidy for the press is established with PTL representation           |
| 05/02/1991    | 4     | 11927  | 1876        | A report from the general transport subsidy for the press committee                                      |
| 09/01/1991    | 4     | 11929  | 1878        | PTL's aim to include their view of telecom market development to the next government program             |
| 15/04/1988    | 4     | 8165   | 1879        | Luukkainen explains the current stage of public corporation reform. PTL tries to change employment       |
| 16/09/1981    | 4     | 6107   | 1881        | PTH made a proposition for the ministry of transport that it should get more time for budget planning    |
| 17/12/1987    | 4     | 8144   | 1882        | Employment obligation memo for 1988 based on TVM-list presented in the meeting. PTL critical to          |
| 05/10/1990    | 4     | 9577   | 1883        | PTL sent a letter to Ministry of Transport to set a Council of State decision on setting 1 class letter  |
| 18/09/1981    | 4     | 6113   | 1884        | PTL opposed the idea getting 900 hundred people with limited working ability                             |
| 15/12/1987    | 4     | 11934  | 1885        | Management team discussed resolution for communication and education supporting public                   |
| 13/05/1987    | 4     | 8119   | 1889        | Management team discussed the reforms in administrative department. The reforms are made                 |
| 08/05/1987    | 4     | 8117   | 1890        | Management team accepted the strategy to develop corporate governance in public corporation. Issue       |
| 19/12/1986    | 4     | 8051   | 1893        | Budget targets for 1987 were accepted with minor changes. It was noted that public corporation           |
| 03/12/1986    | 4     | 8049   | 1894        | Management team accepts the guidelines proposed by the public corporation construction working           |
| 14/08/1990    | 4     | 10781  | 1895        | Tele's market research unit published a study that benchmark how post and telecoms are organized in      |
| 01/08/1990    | 4     | 11948  | 1896        | CEO of PTL wrote a memo about the new telecom policy should decrease the profit required to be           |
| 25/07/1990    | 4     | 11949  | 1897        | Luukkainen of PTL wrote a memo about the new telecom policy should decrease the profit required to       |
| 20/07/1990    | 4     | 9566   | 1899        | Pricing issues of long-distance call and profit payment requirements discussed in TMT meeting            |
| 01/06/1990    | 4     | 9593   | 1900        | The possibility to establish a holding company for PTL to manage joint ventures discussed in TMT         |
| 02/03/1990    | 4     | 9581   | 1901        | A statement requested by the Ministry of Transport regarding the act of organizing                       |
| 02/03/1990    | 4     | 9581   | 1902        | TMT discussed giving aid to Eastern European countries in telecommunications expertise to answer a       |
| 22/03/1989    | 4     | 11956  | 1903        | A version of PTL's internal memo regarding subsidiaries and joint ventures for new public corporations   |

**Figure 8.** An example list of incidents related to regulatory strategizing.

Instead of comparing cases and multiple processes as in Essay 1, this analysis focuses solely on strategizing in relation to regulations. This enables an in-depth analysis of regulatory strategizing during a period of transformation in the historical context. We were able to analyze how the top management team formulated different regulatory goals across multiple regulatory issues and linked the goals to specific market conditions.

Our rigorous approach grounds the analysis, in chronological order, by issues that are coded as verbatim documented descriptions, which are directly linked to historical sources. We code the data in the relational database as incidents,



match these incidents to empirical themes, and then group them into conceptual themes in the final stage, ensuring a link between the evidence and interpretation that is consistently grounded in a strong historical comprehension of events. Our rigorous approach is thus able to reduce the aggregation biases and errors of previous studies, which arise from stressing the effect of one element more than others in the historical reinterpretations of researchers and informants (Kipping et al., 2014). Our approach further reduces hindsight biases by informants—recollections of the past and knowledge of what has occurred—by relying on historically grounded archival data that are less subjective. Furthermore, our approach reduces source interpretation biases, as every source is interpreted and then imputed as data and meaning, which can be easily retrieved and provided as evidence to other researchers at any time.

### **3.3 Essay 3: Institutional Logics and the Internationalization of a State-Owned Enterprise: Evaluation of International Venture Opportunities by Telecom Finland 1987–1998**

#### **3.3.1 Key Findings of Essay 3**

In Essay 3, we study the internationalization process of Telecom Finland (TF)—a fully state-owned telecommunications company—from 1987 to 1998. We trace the internationalization process of TF starting from their first international venture and conclude our study when TF was partially privatized and publicly listed in November 1998, i.e., our case organization was fully state-owned throughout the period of interest. During this period, TF’s institutional environment significantly changed with a shift in the dominant logic from state to market logic, which affected the institutional pressures, abilities, and opportunities to internationalize. Specifically, we ask the following question: *How does a shift in dominant institutional logic from state to market logic affect the coevolution of the state governance of state-owned enterprises (SOEs) and SOEs’ evaluation of international venture opportunities?* Thus, we focus on how TF evaluated international venture opportunities, and we define institutional logics as supraorganizational historically embedded belief systems that provide rationales for strategic actions, such as internationalization decisions (Friedland & Alford, 1991; Greve & Zhang, 2017; Thornton & Ocasio, 1999, 2008).

We found that as the dominant institutional logic shifted from state to market logic, the state changed the way it exercised control over TF, and the rationales TF used to evaluate international venture opportunities increasingly followed a market logic, emphasizing growth and portfolio strategy, instead of state logic, emphasizing benefits to Finland. The change in the state governance of SOEs and TF’s evaluation rationales coevolved and mutually reinforced each other. For example, liberalization of the telecommunications market and the change towards market-oriented governance of SOEs encouraged TF to seek growth internationally. This, in turn, made attracting the most interesting international venture opportunities critical, which required credibility in the eyes of potential partners. The need for credibility, in turn, triggered TF to push for reforms that

made internationalization decision-making less bureaucratic. Furthermore, changes in the rationales TF used to evaluate international venture opportunities changed the geographical market and partner preferences of TF, which, in turn, created historically contingent effects, as the ventures established under state logic influenced internationalization under market logic. As such, logics that were dominant in the past continue to impact decision-making in the present through material instantiations.

We make three contributions. First, we contribute to the literature concerning SOEs in the international context through the institutional logics lens by showing how a shift from state to market logic influences the relationship between the state and SOE internationalization (Thornton, 2002; Thornton & Ocasio, 1999). Furthermore, we argue that the dilution of state control is neither required nor sufficient for market logic to overcome state logic; rather, there must be changes in the rationales guiding strategic decision-making (Greve & Zhang, 2017). Second, we contribute to the state-owned multinational company (SOMNC) literature by showing that although SOMNCs can internationalize to the same extent or even more than their privately owned counterparts (Estrin, Meyer, Nielsen, & Nielsen, 2016), different rationales underly their internationalization, and these rationales might significantly change during long internationalization processes (Grøgaard, Rygh, & Benito, 2019). Finally, we answer multiple calls in the IB literature for more historical research that can uncover contextually embedded relationships in internationalization (Buckley, 2016; Burgelman, 2011; da Silva Lopes et al., 2019; Jones & Khanna, 2006; Verbeke & Kano, 2015).

### 3.3.2 Methodological Approach of Essay 3

In Essay 3, we employed the same archival set as in Essay 2 but focus on a narrower period, as the first mention of any international venture occurred only in 1987. We started our analysis with a similar strategy as in Essay 2, i.e., from the top management team meeting minutes (764 minutes), with the assumption that all serious international venture opportunities would be discussed at the top management level. As we have separated all of the top management team meeting minutes issues in the database (3,097 issues), we examined all the issues and coded every issue related to international activities (357 issues). Then, we identified every international venture that was mentioned in the minutes and their attachment (69 ventures), coding them into our database's venture table (a database table for the entity-based coding created for this specific analysis) including their alternative names<sup>1</sup> (1), target market (2), product or service (3), and partners (4) (Figure 9). Based on the name alternatives, we searched our entire database for sources that contain a mention of each venture, and we linked these sources to the corresponding ventures in the venture table.

---

<sup>1</sup> It was common for the international venture projects to have various names, codenames, or abbreviations, especially during the early stages of the projects.

| Venture                       |  | Sources                     |             |                               |                 |                           |       |    |                            |                 |                           |       |    |                              |                 |                           |       |    |                             |                 |                           |       |   |  |                 |                           |       |  |
|-------------------------------|--|-----------------------------|-------------|-------------------------------|-----------------|---------------------------|-------|----|----------------------------|-----------------|---------------------------|-------|----|------------------------------|-----------------|---------------------------|-------|----|-----------------------------|-----------------|---------------------------|-------|---|--|-----------------|---------------------------|-------|--|
| VentureID                     | 63   | Industry field              | FIN Telecom |                               |                 |                           |       |    |                            |                 |                           |       |    |                              |                 |                           |       |    |                             |                 |                           |       |   |  |                 |                           |       |  |
| Venture Name                  | P Plus Communication Ltd.  |                             |             |                               |                 |                           |       |    |                            |                 |                           |       |    |                              |                 |                           |       |    |                             |                 |                           |       |   |  |                 |                           |       |  |
| Alternative Names             | P+Plus, Hong Kong PCN <b>1</b>   |                             |             |                               |                 |                           |       |    |                            |                 |                           |       |    |                              |                 |                           |       |    |                             |                 |                           |       |   |  |                 |                           |       |  |
| Market/Region                 | Hong Kong <b>2</b>   | First occurrence in archive | 12/12/1994  |                               |                 |                           |       |    |                            |                 |                           |       |    |                              |                 |                           |       |    |                             |                 |                           |       |   |  |                 |                           |       |  |
| Services                      | PCN / GSM 1800 <b>3</b>  | End year                    | 1998        |                               |                 |                           |       |    |                            |                 |                           |       |    |                              |                 |                           |       |    |                             |                 |                           |       |   |  |                 |                           |       |  |
| Partners                      | <table border="1"> <tr> <td><b>4</b> Posti- ja telelaitos</td> <td>Leading Partner</td> <td><input type="radio"/> Yes</td> <td>Share</td> <td>23</td> </tr> <tr> <td>SP PCN Investments Limited</td> <td>Leading Partner</td> <td><input type="radio"/> Yes</td> <td>Share</td> <td>52</td> </tr> <tr> <td>Paging Phone Company Limited</td> <td>Leading Partner</td> <td><input type="radio"/> Yes</td> <td>Share</td> <td>22</td> </tr> <tr> <td>Shanghai Guo Mai Industrial</td> <td>Leading Partner</td> <td><input type="radio"/> Yes</td> <td>Share</td> <td>3</td> </tr> <tr> <td></td> <td>Leading Partner</td> <td><input type="radio"/> Yes</td> <td>Share</td> <td></td> </tr> </table>   |                             |             | <b>4</b> Posti- ja telelaitos | Leading Partner | <input type="radio"/> Yes | Share | 23 | SP PCN Investments Limited | Leading Partner | <input type="radio"/> Yes | Share | 52 | Paging Phone Company Limited | Leading Partner | <input type="radio"/> Yes | Share | 22 | Shanghai Guo Mai Industrial | Leading Partner | <input type="radio"/> Yes | Share | 3 |  | Leading Partner | <input type="radio"/> Yes | Share |  |
| <b>4</b> Posti- ja telelaitos | Leading Partner  | <input type="radio"/> Yes   | Share       | 23                            |                 |                           |       |    |                            |                 |                           |       |    |                              |                 |                           |       |    |                             |                 |                           |       |   |  |                 |                           |       |  |
| SP PCN Investments Limited    | Leading Partner  | <input type="radio"/> Yes   | Share       | 52                            |                 |                           |       |    |                            |                 |                           |       |    |                              |                 |                           |       |    |                             |                 |                           |       |   |  |                 |                           |       |  |
| Paging Phone Company Limited  | Leading Partner  | <input type="radio"/> Yes   | Share       | 22                            |                 |                           |       |    |                            |                 |                           |       |    |                              |                 |                           |       |    |                             |                 |                           |       |   |  |                 |                           |       |  |
| Shanghai Guo Mai Industrial   | Leading Partner  | <input type="radio"/> Yes   | Share       | 3                             |                 |                           |       |    |                            |                 |                           |       |    |                              |                 |                           |       |    |                             |                 |                           |       |   |  |                 |                           |       |  |
|                               | Leading Partner  | <input type="radio"/> Yes   | Share       |                               |                 |                           |       |    |                            |                 |                           |       |    |                              |                 |                           |       |    |                             |                 |                           |       |   |  |                 |                           |       |  |
| Notes                         | <p>A consortium for the license bid founded in 4.11.1995, Tendering is between 18.11.1994-24.3.1995 (12347)<br/>                 In 15.12.1994 the board of Tele has decided to participate in the consortium. This decision in further approved in Suomen PT 21.12.1994 (12203)</p> <p>Changes in the consortium after 12.12.1994 (12203):<br/>                 - Shenzhen Honbo Communications Investment and Development Corporation decided not to join the consortium<br/>                 - Star Paging and PEWC have formed a common holding company SP PCN Investments Limited<br/>                 - Asia Paging Limited, BB Telecom Limited, Telecom Service Limited, and EPRO Telecom Holdings Limited have founded a join holding company Paging Phone Company Limited</p> <p>License awarded to the consortium in Summer 1996 (before 30.7.1996) (12058)<br/>                 GSM 1800 network opened in June 1997 (6628)</p> |                             |             |                               |                 |                           |       |    |                            |                 |                           |       |    |                              |                 |                           |       |    |                             |                 |                           |       |   |  |                 |                           |       |  |
| End reason                    | Exit, stake sold to Star Telecommunications  |                             |             |                               |                 |                           |       |    |                            |                 |                           |       |    |                              |                 |                           |       |    |                             |                 |                           |       |   |  |                 |                           |       |  |

**Figure 9.** An example venture entity (P Plus—a Hong Kong venture) in the relational database (the numbers are referred to in the text).

After identifying all the relevant sources, we read through them venture by venture to create a brief narrative of each and then a more extensive narrative across the ventures. We identified all the specific venture-related content and coded it into the database in the link table that connects the ventures to the sources (Figure 10). Gradually, a pattern emerged that the rationales used to evaluate international ventures changed together with the top management’s geographical and partner preferences for international ventures.

| VentureID            | Venture Name  |   |
|----------------------|---|---|
| 63                   | P Plus Communication Ltd.   |   |
| Venture              | Sources   |   |
| Source               | Telecom Finland Oy hallituksen pöytäkirja 17/1994                           | Quotes<br><i>PCN-liiketoimintaa harjoittavan yhteisyrityksen perustaminen Hong Kongiin. Päätettiin merkittävästi enintään 40% Hong Kongiin perustettavan yhteisyrityksen osakkeista edellyttäen, että Suomen PT Oy:n hallitus hyväksyy merkinnän. Yhtiön tarkoituksena on hankkia toimilupa PCN-liiketoimintaa varten sekä sen nojalla suunnitella, rakentaa ja operoida PCN-</i> |
| Source Date          | 15/12/1994  | Pages   |
| Source Type          | Board Minutes   |   |
| Venture/Source Notes |   | Rationales  |
| Source               | Liite: Muistio: PCN Hong Kong   | Quotes<br><i>Toimitusjohtajan päättöksellä TFV on saanut valtuudet osallistua taljouskonsortioon, joka hakee PCN toimilupaa Hong Kongiin. Taljouskustannusten ylärajaksi on arvioitu 6 miljoonaa markkaa. Hankkeesta on informoitu myös Telen hallitusta.</i>   |
| Source Date          | 12/12/1994  | Pages   |
| Source Type          | Annex to Management/Board minutes   |   |
| Venture/Source Notes | Highly competitive bidding process  | Rationales<br>China, Asia, Technical expertise  |
| Source               | Liite: Hongkongin PCN-hanke   | Quotes<br><i>Telellä on kaksi paikkaa 11 jäsenisessä hallituksessa. Toimitusjohtaja on valinnut Telen edustajiksi Johtaja Almo Kosken ja johtaja Leena Suho sen.</i>  |
| Source Date          | 03/03/1995  | Pages   |
| Source Type          | Annex to Management/Board minutes   |   |
| Venture/Source Notes | Details about the plan for bid, governance, key people                      | Rationales<br><i>Niiden mukaan hanke täyttää asetetut vähimmäistavoitteet eli IRR (8 v) &gt; 20 % ja takaisinmaksuaika &lt; 8 vuotta; tunnustuluvut lienevät IRR n. 25 % ja takaisinmaksuaika n. 6</i>  |
| Source               | Pöytäkirja, Telecom Finland Oy, B-JORY 7/1995                               | Quotes<br><i>Hongkongin PCN-hankkeen tarjouspaperit valmistuvat 15.3. TFV ja MVP katsovat paperit lävitse ennen niiden toimittamista hallitukselle jälkipostissa. Tarjouskonsortion rakenteessa on tapahtunut pieniä muutoksia. Ehdotetun koeverkon rakentaminen yritetään torjua. Telen sijoitus yhtiöön tulee olemaan alle 100 Mmk.</i>   |
| Source Date          | 10/03/1995  | Pages   |
| Source Type          | Management minutes  |   |
| Venture/Source Notes |   | Rationales  |
| Source               | Liite: Sijoitukset ulkomaisiin tytä- ja osakkuusyhtiöihin ajalla 6/95-12/95 | Quotes<br><i>Mahdollisuudet saada lisenssi Hongkongissa ovat kohtalaisen hyvät.</i>   |
| Source Date          | 02/06/1995  | Pages<br>1  |
| Source Type          | Annex to Management/Board minutes   |   |
| Venture/Source Notes |   | Rationales  |
| Source               | Pöytäkirja, Telecom Finland Oy, B-JORY 17/1995                              | Quotes<br><i>Sijoitukset ulkomaisiin tytäryhtiöihin loppuvuonna -95 TFV:ssä on selvitetty Telen tytä- ja osakkuusyrytysten</i>  |

**Figure 10.** An example list of sources linked to a venture entity [P Plus—a Hong Kong venture) in the relational database.

Here, the use of archival sources enables the analysis of realized but also unrealized—due to, e.g., the decision not to participate, an unsuccessful license bid, or partners withdrawing—ventures, which tend to be missing from the extant studies on internationalization. As we focus on the primary sources that were created as the events of interest unfolded, there is no retrospective bias; i.e., the outcomes of the ventures were not known at the time, which is not the case in retrospective interviews. Such sources also enable us to analyze internationalization over an extended period of time, starting from the first international venture (Welch & Paavilainen-Mäntymäki, 2014), and to uncover the decision-making rationales of the top management team (Peng, 2003). This is especially important, as the process of internationalization tends to extend over long periods of time, during which both the home and host contexts can significantly change. Finally, the relational database approach allows us to quantify and visualize archival sources efficiently (Burgelman, 2011). Figure 11, for example, is a direct result of the entity-based coding strategy and shows the importance of different geographical areas in internationalization based on archival sources related to each venture. It shows not only that international ventures, in general, were much more important in the later period but also that the Baltics/Eastern Europe and the Soviet Union/Russia were more important

in the early stages (they continue to be important in later stages, but with less new ventures), while Western Europe and other markets (Asia, Middle East, and North America) were more important in the later stages of internationalization.

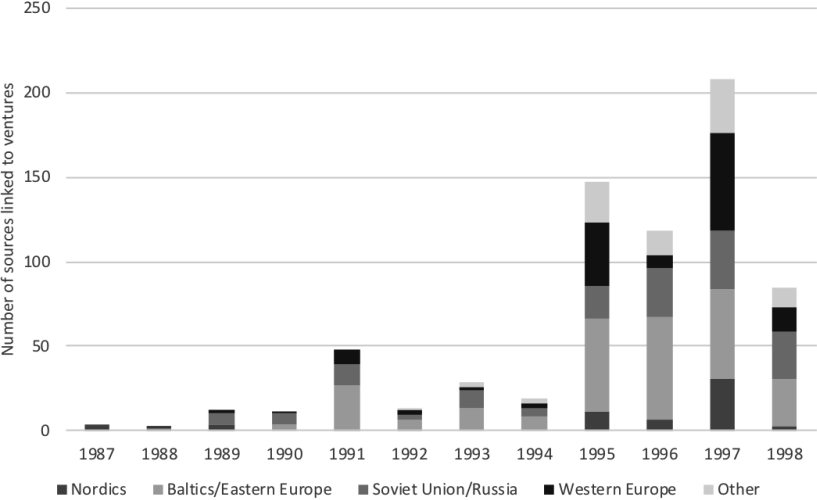


Figure 11. Number of archival sources linked to ventures by region and year.

## 4. Discussion

With this summary of the dissertation, I aim to present our analytically structured history approach using a relational database that can fulfil both the need for theoretical contribution required by strategy research and historical veracity required by historical research, thus bridging the methodological divide between the two fields and making a methodological contribution to the calls for more use of historical sources, methods, and knowledge in strategy research (Argyres et al., 2019; Ingram et al., 2012; Kahl et al., 2012; Vaara & Lamberg, 2016) and adjacent fields, such as international business (Buckley, 2009, 2016; Burgelman, 2011; da Silva Lopes et al., 2019; Jones & Khanna, 2006; Verbeke & Kano, 2015).

### 4.1 Methodological Strengths of the Relational Database Approach

Our approach, which is built around a relational database with complete and extensive digitized archival sets, has multiple methodological strengths. First, source transparency is established by linking all steps of the coding to the sources in the database, which, in turn, contain the information of the original source and the location of the source. There is a possibility of opening the database to editors, reviewers, and readers to show the sources on which each interpretation and theoretical concept in a study is based, thus making it possible for others to evaluate the quality of the sources used and the source criticism applied, which is a significant improvement to the current business history practices (Lipartito et al., 2013).

Second, our approach is especially suitable for collaborative projects with, e.g., cross-border comparative case studies, such as Essay 1, which have been scarce in business history research (Colli & Larsson, 2014). The database can be easily scaled to multiple cases at any stage of the research project. Coding can be performed in parallel among multiple researchers, and the coding performed by others can be seen in real-time, which enables fast iteration of the coding procedures.

Third, our approach is highly efficient once the relatively laborious processes of digitizing sources and setting up the database are complete. The always available and searchable database enables the researcher to easily move back and forth from sources to narrative construction and theorizing (Laurell, Sandström, Eriksson, & Nykvist, 2019). This decreases the risk of getting lost in the complexity of archives—a common notion among historians (Fellman &

Popp, 2013). Collaboration with multiple researchers with real-time coding can also make the analytical process more efficient. Finally, due to this efficiency gain, research can be based on extensive archival datasets—an underutilized type of data in management research (Rowlinson et al., 2014)—enabling more rigorous conceptual development.

## 4.2 Specific Methodological Strengths of the Essays

In addition to the three general strengths of our approach discussed above, each essay of the dissertation demonstrates specific methodological strengths (Table 3). Essay 1 demonstrates how our approach supports a detailed comparison between two cases. With the detailed incident coding, we were able to map the regulatory and competitive changes in the HSE's and SSE's respective environments, both the stock exchanges' development of electronic stock exchanges and the organizational renewal to the for-profit mode of organizing. Most interestingly, we were able to analyze how the individual cases influenced each other by focusing on how SSE was discussed in the archival material of HSE and vice versa. The changes in the home environment were constantly reflected with the changes in the peer's environment. For example, the financial transaction tax in Sweden was considered as a threat by the management of HSE and triggered opposition to the stamp duty, which bears similarities with the financial transaction tax. In Essay 1, we were also able to triangulate between primary archival sources and retrospective interviews. We found that many claims made by the interviewees contradicted the archival sources. The interviews' reliability was quite limited and mostly offered additional and anecdotal insights to what we found from the archival sources.

Table 3. Specific methodological strengths related to each essay of the dissertation.

| Essay   | Specific methodological strengths  |
|---|--|
| Essay 1: Peer Interaction and the Emergence of New Organizational Forms | <ul style="list-style-type: none"> <li>• Detailed comparison of two cases, i.e., HSE and SSE, from two separate geographical markets, i.e., Finland and Sweden, that interact with each other and tracking of how one case appeared in the other case's archival sources.</li> <li>• Triangulation of primary archival sources and retrospective interviews.</li> <li>• Multilevel perspective on the historical context: <ul style="list-style-type: none"> <li>○ Macro environment: technological development enabling electronic trading and the global trend in the deregulation of financial regulation;</li> <li>○ Local environment: idiosyncratic to each market, e.g., the financial transaction tax in Sweden;</li> <li>○ Peer environment: shared by a subset of organizations in a population that are peers.</li> </ul> </li> </ul> |

|  |  |
|--|--|
| <p>Essay 2: Asymmetric Regulation, Managerial Discretion, and Corporate Political Strategies</p>   | <ul style="list-style-type: none"> <li>• Unique access to rich sources on top management decision-making: <ul style="list-style-type: none"> <li>○ Analysis of texts that were generated at the time of political strategy formulation;</li> <li>○ Top management minutes over an 18-year period.</li> </ul> </li> <li>• Analysis of multiple regulatory issues that unfold sequentially and in parallel across an extended period: <ul style="list-style-type: none"> <li>○ Comparison of political strategy formulation regarding different regulations, e.g., simultaneous effort to increase regulation in the fixed telephone market and decrease regulation in the mobile telephone market.</li> </ul> </li> </ul>                             |
| <p>Essay 3: Internationalization of a State-Owned Telecommunications Company: Evaluation of International Venture Opportunities by Telecom Finland 1987–1998</p> | <ul style="list-style-type: none"> <li>• Analysis starting from the first international venture: <ul style="list-style-type: none"> <li>○ All venture opportunities discussed at the top management level identified (69 ventures).</li> </ul> </li> <li>• Unrealized and failed ventures included in the analysis, i.e., no survival bias.</li> <li>• Primary archival sources that are created at the time of top management decision-making, thus, no retrospective bias.</li> <li>• Triangulation among different type of sources created for different audiences: <ul style="list-style-type: none"> <li>○ Analysis of whether internationalization was justified the same way for politicians, managers, and employees.</li> </ul> </li> </ul> |

The unique set of rich archival sources, such as top management meeting minutes and their attachments, provide a window into top management strategy formulation and decision-making as it unfolds. In Essay 2, we were able to analyze the process of political strategy formulation under drastically different regulatory conditions. During the early period, the focal organization and its competitors were regulated with different regulations (i.e., asymmetric regulations), while in the latter period, the organizations were regulated with the same regulations (i.e., symmetric regulations). Most interestingly, we were able to analyze multiple regulatory issues in both of the periods and how the top management strategies varied with different regulatory issues. This is rare in the extant corporate political strategy research, as most studies focus on a single regulatory issue, such as the demise of the Glass-Steagall act in the Finance industry (Funk & Hirschman, 2017) and regulatory categorization of dietary supplements (Ozcan & Gurses, 2018).

In Essay 3, we were able to analyze the internationalization of a state-owned telecommunications company, starting from the first discussions of the first international venture at the top management level and over an eleven-year



period. Such an analysis would be challenging to conduct using ethnographic or interview methods, as real-time tracking of an organization's internationalization process would require many years and access to the top management team during critical periods tends to be challenging. Conducting retrospective interviews would be problematic due to survival and retrospective biases. In our study, we also analyzed cases that failed or were never realized due to various reasons, such as our case company losing a competitive bid and the management's decision to not participate in an international venture. Such cases tend to be missing from the extant research. Additionally, by using rich archival sources, we were able to evaluate the process of international strategy formulation as it unfolded. Thus, it removes retrospective bias, as at the time of decision-making, the technological and political uncertainties are reflected in the archival sources. For example, investments to the Soviet Union did not take into account the risk of the collapse of the Soviet system, as it was unforeseen; paging technology was seen as an important complementary technology to mobile telecommunications instead of mobile telephones making pagers obsolete.

### **4.3 Contribution to Historical Embeddedness of Strategy Formulation**

The greatest potential for theoretical contribution with this approach lies in the more nuanced understanding of the complex multidirectional causalities and the multilevel nature of the historical context, which changes across time and space (Buckley, 2016; Welch et al., 2011), particularly the historical embeddedness of strategy formulation and decision-making (Vaara & Lamberg, 2016). Essay 1 shows that instead of treating each national context as idiosyncratic to each case, the context should be analyzed at multiple levels, where the highest level is shared by all cases in a population, the lowest level is idiosyncratic to each case and in-between, there are levels shared by a subset of cases that can be conceptualized as peers. This way, we can analyze the interactions between cases and different levels of context to produce a contextually embedded understanding of strategy processes, such as our finding regarding how interactions among peers induced the emergence of a new organizational form in Essay 1. Essays 2 and 3 demonstrate how our approach enables the analysis of historical contingencies of top management strategy-making. However, our approach also enables the analysis of how top management strategizing influences macro-level institutions, i.e., microfoundations (Argyres et al., 2019; Felin, Foss, & Ployhart, 2015). Essays 2 and 3, for example, show that the top management teams of the case organizations were active in shaping the regulatory environment and governance of state-owned enterprises in Finland. Many regulations and governance structures advanced by the management then shaped the institutions that govern how markets are deregulated and how the state governs its enterprises.

In international business, there is also a call for a more nuanced understanding and detailed descriptions of institutions—in various institutional perspectives—and how they impact firm behavior (Aguilera & Grøgaard, 2019; Jackson & Deeg, 2008). The illustrative examples demonstrate that our analytically structured history approach can disentangle institutional differences across countries at multiple levels—in contrast to treating the differences as idiosyncratic configurations or as a unidimensional continuum (Aguilera & Grøgaard, 2019)—where different levels are shared by different subsets of countries. Additionally, by analyzing institutional differences across time and space simultaneously, we can discover the various paths and pace of institutional change that lead to similar outcomes in terms of institutional structure but different firm behavior.

As institutional change is often a long process, the process itself can have a significant impact on firm behavior, even if there are strong isomorphic forces that produce similar institutional outcomes. For example, the deregulation of the telecommunications market in Europe was coordinated at the European Community level (predecessor of the European Union) and resulted in a similar market structure throughout the region, with the large-scale privatization of state-owned telecoms and new entrants competing internationally with similar regulatory frameworks (e.g., Graack, 1996; Sarkar, Cavusgil, & Aulakh, 1999). However, the starting point and pace of the transition varied from country to country, resulting in very different internationalization patterns (Alonso, Clifton, Díaz-Fuentes, Fernández-Gutiérrez, & Revuelta, 2013; Clifton et al., 2011; Clifton, Díaz-Fuentes, & Revuelta, 2010).

Although I advocate a specific approach to conduct strategy research using historical perspectives, my aim is not to impose a single historical method template (Decker, Kipping, & Wadhvani, 2015; Köhler, Smith, & Bhakoo, 2019). I acknowledge that the proposed analytically structured history approach is mainly fitting business history to the social scientific paradigm dominant in strategy research and, more generally, in management and organization research (Durepos, Shaffner, & Taylor, 2019). Still, our approach is somewhat strict in defining how to collect, manage, and organize archival sources but leaves room for alternative approaches to the narrative construction and theoretical analysis (e.g., Rowlinson et al., 2014; Vaara & Lamberg, 2016).

There are also limitations to our approach. The digitization and populating of the database require significant upfront resources. Thus, our approach is more suitable for large projects, for example, in the form of a research consortium, where multiple studies are conducted with varying configurations of consortium and external researchers. To realize the value of our approach, access to large and well-maintained archives is critical. However, the availability of such archives is skewed towards certain geographical areas, time periods, and industries, such as the Nordics and the public sector. In some other contexts, there might be less availability of archival sources, or it may be more difficult to gain access to them. Thus, representational bias might emerge from excessive use of our approach. Nevertheless, currently, our approach provides great potential to increase our understanding of strategy formulation and beyond.



# References

- Aggarwal, R. 2002. Demutualization and corporate governance of stock exchanges. *Journal of Applied Corporate Finance*, 15(1): 105–113.
- Aguilera, R. V., & Grøgaard, B. 2019. The dubious role of institutions in international business: A road forward. *Journal of International Business Studies*, 50(1): 20–35.
- Alonso, J. M., Clifton, J., Díaz-Fuentes, D., Fernández-Gutiérrez, M., & Revuelta, J. 2013. The race for international markets: Were privatized telecommunications incumbents more successful than their public counterparts? *International Review of Applied Economics*, 27(2): 215–236.
- Argyres, N. S., De Massis, A., Foss, N. J., Frattini, F., Jones, G., et al. 2020. History-informed strategy research: The promise of history and historical research methods in advancing strategy scholarship. *Strategic Management Journal*, 41(3): 343–368.
- Azzam, I. 2010. Stock exchange demutualization and performance. *Global Finance Journal*, 21(2): 211–222.
- Bothner, M. S. 2003. Competition and social influence: The diffusion of the sixth-generation processor in the global computer industry. *American Journal of Sociology*, 108(6): 1175–1210.
- Boxenbaum, E., & Battilana, J. 2005. Importation as innovation: Transposing managerial practices across fields. *Strategic Organization*, 3(4): 355–383.
- Buckley, P. J. 2009. Business history and international business. *Business History*, 51(3): 307–333.
- Buckley, P. J. 2016. Historical research approaches to the analysis of internationalisation. *Management International Review*, 56(6): 879–900.
- Burgelman, R. A. 2011. Bridging history and reductionism: A key role for longitudinal qualitative research. *Journal of International Business Studies*, 42(5): 591–601.
- Clifton, J., Comín, F., & Díaz-Fuentes, D. 2011. From national monopoly to multinational corporation: How regulation shaped the road towards telecommunications internationalisation. *Business History*, 53(5): 761–781.
- Clifton, J., Díaz-Fuentes, D., & Revuelta, J. 2010. The political economy of telecoms and electricity internationalization in the single market. *Journal of European Public Policy*, 17(7): 988–1006.
- Colli, A., & Larsson, M. 2014. Family business and business history: An example of comparative research. *Business History*, 56(1): 37–53.
- da Silva Lopes, T., Casson, M., & Jones, G. 2019. Organizational innovation in the multinational enterprise: Internalization theory and business history. *Journal of International Business Studies*, 50(8): 1338–1358.
- Decker, S. 2013. The silence of the archives: Business history, post-colonialism and archival ethnography. *Management & Organizational History*, 8(2): 155–173.
- Decker, S., Kipping, M., & Wadhvani, R. D. 2015. New business histories! Plurality in business history research methods. *Business History*, 57(1): 30–40.
- Dijksterhuis, M. S., Van den Bosch, F. A. J., & Volberda, H. W. 1999. Where do new organizational forms come from? Management logics as a source of coevolution. *Organization Science*, 10(5): 569–582.
- Djelic, M. L., & Ainamo, A. 1999. The coevolution of new organizational forms in the fashion industry: A historical and comparative study of France, Italy, and the United States. *Organization Science*, 10(5): 622–637.
- Durepos, G., Shaffner, E. C., & Taylor, S. 2019. Developing critical organizational history: Context, practice and implications. *Organization*. Advance online publication October 24. <https://doi.org/10.1177/1350508419883381>.
- Eisenhardt, K. M. 1989. Building theories from case study research. *Academy of*

- Management Review*, 14(4): 532–550
- Eisenhardt, K. M., & Graebner, M. E. 2007. Theory building from cases: Opportunities and challenges. *Academy of Management Journal*, 50(1): 25–32.
- Estrin, S., Meyer, K. E., Nielsen, B. B., & Nielsen, S. 2016. Home country institutions and the internationalization of state owned enterprises: A cross-country analysis. *Journal of World Business*, 51(2): 294–307.
- Felin, T., Foss, N. J., & Ployhart, R. E. 2015. The microfoundations movement in strategy and organization theory. *Academy of Management Annals*, 9(1): 575–632.
- Fellman, S., & Popp, A. 2013. Lost in the archive: The business historian in distress. In B. Czarniawska & O. Löfgren (Eds.), *Coping with excess: How organizations and individuals manage overflows.*: 216–243. Cheltenham, UK: Edward Elgar.
- Fleckner, A. M. 2006. Stock exchanges at the crossroads. *Fordham Law Review*, 74(5): 2541–2620.
- Forbes, D. P., & Kirsch, D. A. 2011. The study of emerging industries: Recognizing and responding to some central problems. *Journal of Business Venturing*, 26(5): 589–602.
- Friedland, R., & Alford, R. 1991. Bringing society back in: Symbols, practices and institutional contradictions. In W. Powell & P. Dimaggio (Eds.), *The new institutionalism in organizational analysis*: 232–263. Chicago, IL: University of Chicago Press.
- Funk, R. J., & Hirschman, D. 2014. Derivatives and deregulation: Financial innovation and the demise of Glass–Steagall. *Administrative Science Quarterly*, 59(4): 669–704.
- Furnari, S. 2014. Interstitial spaces: Microinteraction settings and the genesis of new practices between institutional fields. *Academy of Management Review*, 39(4): 439–462.
- Gibbert, M., Nair, L. B., Weiss, M., & Hoegl, M. 2020. Using outliers for theory building. *Organizational Research Methods*, 1094428119898877.
- Gioia, D. A., Corley, K. G., & Hamilton, A. L. 2013. Seeking qualitative rigor in inductive research notes on the Gioia methodology. *Organizational Research Methods*, 16(1): 15–31.
- Glaser, B., & Strauss, A. 1967. *The discovery of grounded theory: Strategies for qualitative research*. Chicago: Aldin.
- Godfrey, P. C., Hassard, J., O'Connor, E. S., Rowlinson, M., & Ruef, M. 2016. What is organizational history? Toward a creative synthesis of history and organization studies. *Academy of Management Review*, 41(4): 590–608.
- Gorham, M., & Singh, N. 2009. *Electronic exchanges: The global transformation from pits to bits*. Amsterdam, The Netherlands: Elsevier Science.
- Graack, C. 1996. Telecom operators in the European Union: Internationalization strategies and network alliances. *Telecommunications Policy*, 20(5): 341–355.
- Greenwood, R., & Suddaby, R. 2006. Institutional entrepreneurship in mature fields: The Big Five accounting firms. *Academy of Management Journal*, 49(1): 27–48.
- Greve, H. R., & Zhang, C. M. 2017. Institutional logics and power sources: Merger and acquisition decisions. *Academy of Management Journal*, 60(2): 671–694.
- Grøgaard, B., Rygh, A., & Benito, G. R. G. 2019. Bringing corporate governance into internationalization theory: State ownership and foreign entry strategies. *Journal of International Business Studies*, 50(8): 1310–1337.
- Guler, I., Guillén, M. F., & Macpherson, J. M. 2002. Global competition, institutions, and the diffusion of organizational practices: The international spread of ISO 9000 quality certificates. *Administrative Science Quarterly*, 47(2): 207–232.
- Hambrick, D. C., & Finkelstein, S. 1987. Managerial discretion: A bridge between polar views of organizational outcomes. *Research in Organizational Behavior*, 9: 369–406.
- Harvey, C., & Press, J. 1996. *Databases in historical research: Theory, methods and applications*. London, UK: Macmillan.
- Hillman, A. J., Keim, G. D., & Schuler, D. 2004. Corporate Political Activity: A Review and Research Agenda. *Journal of Management*, 30(6): 837–857.

- Ingram, P., Rao, H., & Silverman, B. S. 2012. History in strategy research: What, why, and how? In S. J. Kahl, B. S. Silverman, & M. A. Cusumano (Eds.), *History and strategy*, vol. 29: 241–273. Bingley, UK: Emerald Group Publishing Limited.
- Jackson, G., & Deeg, R. 2008. Comparing capitalisms: Understanding institutional diversity and its implications for international business. *Journal of International Business Studies*, 39(4): 540–561.
- Jones, G., & Khanna, T. 2006. Bringing history (back) into international business. *Journal of International Business Studies*, 37(4): 453–468.
- Kahl, S. J., Silverman, B. S., & Cusumano, M. A. 2012. The integration of history and strategy research. In S. J. Kahl, B. S. Silverman, & M. A. Cusumano (Eds.), *History and strategy*, vol. 29: ix–xxi. Bingley, UK: Emerald Group Publishing Limited.
- Ketokivi, M., & Choi, T. 2014. Renaissance of case research as a scientific method. *Journal of Operations Management*, 32(5): 232–240.
- Kieser, A. 1994. Why organization theory needs historical analyses—And how this should be performed. *Organization Science*, 5(4): 608–620.
- Kipping, M., & Üsdiken, B. 2014. History in organization and management theory: More than meets the eye. *Academy of Management Annals*, 8(1): 535–588.
- Kipping, M., Wadhvani, R. D., & Bucheli, M. 2014. Analyzing and interpreting historical sources: A basic methodology. In M. Bucheli & R. D. Wadhvani (Eds.), *Organizations in time: History, theory, methods*: 305–330. Oxford, UK: Oxford University Press.
- Köhler, T., Smith, A., & Bhakoo, V. 2019. Feature topic for ORM: “Templates in qualitative research methods.” *Organizational Research Methods*, 22(1): 3–5.
- Langley, A. 1999. Strategies for theorizing from process data. *Academy of Management Review*, 24(4): 691–710.
- Laurell, C., Sandström, C., Eriksson, K., & Nykvist, R. 2020. Digitalization and the future of Management Learning: New technology as an enabler of historical, practice-oriented, and critical perspectives in management research and learning. *Management Learning*, 51(1): 89–108.
- Lawrence, T. B., Hardy, C., & Phillips, N. 2002. Institutional effects of interorganizational collaboration: The emergence of proto-institutions. *Academy of Management Journal*, 45(1): 281–290.
- Leblebici, H., Salancik, G. R., Copay, A., & King, T. 1991. Institutional change and the transformation of interorganizational fields: An organizational history of the U.S. radio broadcasting industry. *Administrative Science Quarterly*, 36(3): 333–363.
- Lee, K., & Pennings, J. M. 2002. Mimicry and the market: Adoption of a new organizational form. *Academy of Management Journal*, 45(1): 144–162.
- Lewin, A. Y., Long, C. P., & Carroll, T. N. 1999. The coevolution of new organizational forms. *Organization Science*, 10(5): 535–550.
- Lewin, A. Y., & Volberda, H. W. 1999. Prolegomena on coevolution: A framework for research on strategy and new organizational forms. *Organization Science*, 10(5): 519–534.
- Lipartito, K., Bucheli, M., & Wadhvani, R. D. 2013. Historical sources and data. In M. Bucheli & R. D. Wadhvani (Eds.), *Organizations in time: History, theory, methods*: 284–304. Oxford, UK: Oxford University Press.
- Lux, S., Crook, T. R., & Woehr, D. J. 2011. Mixing business with politics: A meta-analysis of the antecedents and outcomes of corporate political activity. *Journal of Management*, 37(1): 223–247.
- Maclean, M., Harvey, C., & Clegg, S. R. 2016. Conceptualizing historical organization studies. *Academy of Management Review*, 41(4): 609–632.
- Maguire, S., Hardy, C., & Lawrence, T. B. 2004. Institutional entrepreneurship in emerging fields: HIV/AIDS treatment advocacy in Canada. *Academy of Management Journal*, 47(5): 657–679.
- Murmann, J. P. 2010. Constructing relational databases to study life histories on your PC or Mac. *Historical Methods: A Journal of Quantitative and Interdisciplinary History*, 43(3): 109–123.
- Nevalainen, P. 2017. Facing the inevitable? The public telecom monopoly’s way of coping with deregulation. *Business History*, 59(3): 362–381.
- Ozcan, P., & Gurses, K. 2018. Playing cat and mouse: Contests over regulatory categorization of dietary supplements in the United States. *Academy of*

- Management Journal*, 61(5): 1789–1820.
- Peng, M. W. 2003. Institutional transitions and strategic choices. *Academy of Management Journal*, 28(2): 275–296.
- Perchard, A., MacKenzie, N. G., Decker, S., & Favero, G. 2017. Clio in the business school: Historical approaches in strategy, international business and entrepreneurship. *Business History*, 59(6): 904–927.
- Png, I. P. L. 2019. U.S. R&D, 1975–1998: A new dataset. *Strategic Management Journal*, 40(5): 715–735.
- Rowlinson, M., Hassard, J., & Decker, S. 2014. Research strategies for organizational history: A dialogue between historical theory and organization theory. *Academy of Management Review*, 39(3): 250–274.
- Sarkar, M. B., Cavusgil, S. T., & Aulakh, P. S. 1999. International expansion of telecommunication carriers: The influence of market structure, network characteristics, and entry imperfections. *Journal of International Business Studies*, 30(2): 361–381.
- Schmiedel, T., Müller, O., & vom Brocke, J. 2019. Topic modeling as a strategy of inquiry in organizational research: A tutorial with an application example on organizational culture. *Organizational Research Methods*, 22(4): 941–968.
- Strang, D., & Soule, S. A. 1998. Diffusion in organizations and social movements: From hybrid corn to poison pills. *Annual Review of Sociology*, 24: 265–290.
- Suddaby, R., & Foster, W. M. 2016. History and organizational change. *Journal of Management*, 43(1): 19–38.
- Thatcher, M. 2001. The Commission and national governments as partners: EC regulatory expansion in telecommunications 1979–2000. *Journal of European Public Policy*, 8(4): 558–584.
- Thornton, P. H. 2002. The rise of the corporation in a craft industry: Conflict and conformity in institutional logics. *Academy of Management Journal*, 45(1): 81–101.
- Thornton, P. H., & Ocasio, W. 1999. Institutional logics and the historical contingency of power in organizations: Executive succession in the higher education publishing industry, 1958–1990. *American Journal of Sociology*, 105(3): 801–843.
- Thornton, P. H., & Ocasio, W. 2008. Institutional logics. In R. Greenwood, C. Oliver, R. Suddaby, & K. Sahlin-Andersson (Eds.), *The SAGE handbook of organizational institutionalism*, vol. 840: 99–128. London, UK: Sage Publications.
- Tracey, P., Phillips, N., & Jarvis, O. 2011. Bridging institutional entrepreneurship and the creation of new organizational forms: A multilevel model. *Organization Science*, 22(1): 60–80.
- Vaara, E., & Lamberg, J.-A. 2016. Taking historical embeddedness seriously: Three historical approaches to advance strategy process and practice research. *Academy of Management Review*, 41(4): 633–657.
- Van de Ven, A. H., & Poole, M. S. 1990. Methods for studying innovation development in the Minnesota Innovation Research Program. *Organization Science*, 1(3): 313–335.
- Verbeke, A., & Kano, L. 2015. The new internalization theory and multinational enterprises from emerging economies: A business history perspective. *Business History Review*, 89(3): 415–445.
- Wadhvani, R. D., & Jones, G. 2014. Schumpeter's plea: Historical reasoning in entrepreneurship theory and research. In M. Bucheli & R. D. Wadhvani (Eds.), *Organizations in time: History, theory, methods*: 192–216. Oxford, UK: Oxford University Press.
- Wadhvani, R. D., Kirsch, D., Welter, F., Gartner, W., & Jones, G. 2020. Context, time, and change: Historical approaches to entrepreneurship research. *Strategic Entrepreneurship Journal*. Advance online publication, January 27. <https://doi.org/10.1002/sej.1346>.
- Wadhvani, R. D., Suddaby, R., Mordhorst, M., & Popp, A. 2018. History as organizing: Uses of the past in organization studies. *Organization Studies*, 39(12): 1663–1683.
- Wangrow, D. B., Schepker, D. J., & Barker, V. L. III. 2015. Managerial discretion: An empirical review and focus on future research directions. *Journal of Management*, 41(1): 99–135.
- Welch, C., & Paavilainen-Mäntymäki, E. 2014. Putting process (back) in: Research on

- the internationalization process of the firm. *International Journal of Management Reviews*, 16(1): 2–23.
- Welch, C., Piekkari, R., Plakoyiannaki, E., & Paavilainen-Mäntymäki, E. 2011. Theorising from case studies: Towards a pluralist future for international business research. *Journal of International Business Studies*, 42(5): 740–762.
- Yates, J. 2014. Understanding historical methods in organization studies. In M. Bucheli & R. D. Wadhvani (Eds.), *Organizations in time: History, theory, methods*: 265–283. Oxford, UK: Oxford University Press.
- Zald, M. N. 1996. More fragmentation? Unfinished business in linking the social sciences and the humanities. *Administrative Science Quarterly*, 41(2): 251–261.
- Zanotti, G. 2012. Demutualization and the globalization of stock markets. In G. Poitras (Ed.), *Handbook of research on stock market globalization*: 163–180. Cheltenham, UK: Edward Elgar Publishing.







ISBN 978-952-60-3937-4 (printed)  
ISBN 978-952-60-3938-1 (pdf)  
ISSN 1799-4934 (printed)  
ISSN 1799-4942 (pdf)

**Aalto University**  
**School of Science**  
Department of Industrial Engineering and Management  
[www.aalto.fi](http://www.aalto.fi)

**BUSINESS +  
ECONOMY**

**ART +  
DESIGN +  
ARCHITECTURE**

**SCIENCE +  
TECHNOLOGY**

**CROSSOVER**

**DOCTORAL  
DISSERTATIONS**