1 The research project

1.1 Introduction

The topic of this PhD thesis is the strategy of the port authority (PA). For academics, ports are highly interesting subjects of research that have been studied for decades (for recent overviews of the research field, see Pallis et al., 2011; Woo et al., 2011). Within ports, PAs are key actors with responsibility for the port’s development and management. The fast-changing nature of the port environment—economically, socially, technologically and institutionally—has put a lot of pressure on PAs. Consequently, PAs are increasingly redefining their way of acting, the goals that they have to achieve and the way in which they have to do that. To complicate matters further, many PAs have also undergone substantial institutional reform. Such reforms have led PAs to adopt more business-like behavior, and like their for-profit peers, they devote considerable attention to developing strategic intent. This shift has raised questions about the nature of such strategies and the extent to which theoretical concepts from general strategy research can be applied to ports. Despite these opportunities, studies that specifically focus on the PA as an organization are rather limited. This PhD thesis fills this gap by applying a managerial perspective to the PA organization.

1.2 The research context: port and port authority reform

Across the various ownership models, PAs are those organizations responsible for the development and management of seaports (De Monie, 2004; Verhoeven, 2010). PAs are key actors in ports, not only because they control key assets (i.e., port land and nautical access), but because they have a responsibility for further strengthening the performance of the seaport (De Langen, 2004, 2008; Verhoeven, 2010). Seaports are defined as land areas with maritime and hinterland access that have developed into logistics and industrial centres, playing an important role in global industrial and logistics networks (Notteboom & Winkelmans, 2001). The port defined as such is not an entity, but rather the collection of a diverse set of economic activities. The function of a port can be seen in two ways (Haezendonck, 2001; van Klink, 1995). First, as a more public function, it contributes to the welfare and economic development of a wider region. Second, as a more private function, the port provides and maintains a competitive environment for businesses. These two functions set the context for the PA’s strategic actions.

Seaports differ in terms of geographical location, layout, functions, market conditions, institutional context and cultural backgrounds. As a consequence, the strategic choices and strategic management options for PAs are co-determined by the specific port’s characteristics. Notwithstanding these idiosyncrasies, PAs generally have two meta goals (Van der Lugt and De Langen, 2007):

- to facilitate a competitive, sustainable and safe economic development of the port as a whole;
- to become an efficient and effective organization that generates income to cover costs, to make investments and, in some cases, to return to shareholders’ investment.
Both goals are related, but also clearly different and sometimes even conflicting. On one hand, the development of a competitive and attractive port enhances the possibility of generating revenues for the PA. On the other hand, a focus on generating revenues for the organization itself might sometimes conflict with the broader goal of developing a competitive, but also sustainable and safe port. The tension between these goals thus serves as a challenging aspect of PA’s strategy-making.

The organization and management of ports traditionally took place in the public domain, with PAs responsible for the entire development and operation of the port. This has changed over the last few decades, with market forces largely replacing hierarchical governmental control (for an overview of the vast amount of contributions on port reform, see De Langen & Heij, 2014). Nowadays, many ports can be classified as landlord ports where a PA - in most cases with some kind of public character - is responsible for the management and development of the port land and (nautical) infrastructure. Meanwhile, private companies are involved in operational activities in the port such as transport activities (including transshipment), logistics activities and industrial activities. Due to this new arrangement, the borders between the functions of the PA and the functions of the private operating companies are increasingly blurred (Verhoeven, 2010). For instance, several PAs have become substantially involved in “private sector” activities like developing intermodal terminals and intermodal connections (e.g. Port of Barcelona, Port of Virginia, Port of Brisbane), while others assume a supporting role in private actors’ secondary activities like marketing, education, information provision, and communication infrastructure (e.g. Port of Rotterdam, Port of LA, Port of Valencia, Port of Antwerp).

The transformation of ports has not been limited to restructuring the division of responsibilities between public and private entities. Many PAs have transitioned towards being more commercially oriented, taking on commercial targets and more transparent accounting principles (Spanish ports are examples). There are also PAs that have been corporatized, acting like private companies while still being owned by the government (examples in the Netherlands, South Korea, Australia and New Zealand), while others have been privatized (examples in the UK and Australia). The two main results of these trends are, first, that PAs have greater autonomy, and second, that PAs are increasingly accountable for their financial performance, all while having to satisfy their responsibilities toward the private companies in the port (Notteboom et al., 2013). As a result, PAs and their boards are placing greater emphasis on positioning and strategies.

1.3 The research set-up

1.3.1 Research goal

This research aims to provide a better understanding of PA’s strategies by assessing their development and logic, which includes identifying those specific conditions that apply while developing new strategies. To that end, this PhD thesis compiles five different research papers...
that each applies a different perspective on the strategy of the PA. Practically speaking, this research strives to offer PA strategy-makers some valuable insights. The academic goal, meanwhile, is twofold. First, this thesis builds upon concepts from general strategy research and attempts to evaluate whether these concepts apply to the various strategic challenges that PAs face, based on the strategic scope that they choose. A key issue of analysis, then, is the specific organizational characteristics that PAs have and how these impact both their strategy-making and method of analysing said strategies. This investigation not only supplements the knowledge developed within the field of port research, but also contributes to strategy research in general. Second, the research adds to the academic knowledge on port management by unraveling relationships between PA’s internal and external aspects and their strategy-making.

1.3.2 Entity of research

The entity of research is the port authority (PA) that operates under a landlord model principle and that faces reform of its own organization but also of its institutional and market context. The typical PA in our research is primarily responsible for the development and management of the ports land and infrastructure whereby private companies dominate the operations. The PA is merely in public ownership and can institutionally vary; amongst others it can be a department of a governmental body, an autonomous organization subject to governmental control, or a corporate entity acting under private law but with public ownership. The typical PA pursues both public and private goals. Its operational domain is restricted, both geographically as with regard to port operations and services, but its strategic domain tends towards creating value, both for the port as for their own organization. The PA acts in a specific institutional environment that can vary between countries or regions and thus between the different PAs. The main revenue drivers of our typical PA are port dues paid by the shipping lines and land rent paid by the companies that are located in the port. In some cases PAs receive additional governmental funding.

1.3.3 Research foundations

This section defines a set of research foundations based on an assessment of relevant literature. The research is done in the field of strategy and strategic management. A strategy can be defined as “the pattern, plan, ploy, position or perspective that integrates an organization’s major goals, policies, and action sequences into a cohesive whole” (Mintzberg, 2003: 10). Strategic management, meanwhile, is the collective organizational activities concerned with strategic analysis, strategy formulation, adaptation and implementation, finally resulting in the organizations strategy that fits its goals and its context. Strategic management can thus be divided into strategy process, strategy content, and strategy context (Meyer, 2007; Mintzberg et al., 2005). The strategy process is how one arrives at a particular strategy; it entails strategy formulation, analysis, and implementation. Strategy content is the product of the strategy process; it relates to the what, why, and how of the strategy itself (Meyer, 2007). The strategy context encompasses the organizational structure(s) and external context(s) in which the strategy process and strategy content are developed. Although a complete understanding may require the consideration of all three dimensions (Pettigrew, 1992), making this distinction enables a better understanding of complex strategic issues (Pettigrew and Whipp, 1991) and the development of
specific lenses and concepts for analysing and evaluating strategies. Indeed, within the field of strategy research many different concepts are developed for better understanding firm’s strategies, all of which could be of relevance for analysing PA strategy, depending on the specific question raised.

Considering the field of port research, the strategic orientation of the port PA has been addressed from different perspectives (see Goss, 1990; Cullinane and Song, 2002; Comtois and Slack, 2003; Baltazar and Brooks, 2007; Notteboom and Winkelmans, 2001; De Langen, 2004, 2008; Chlomoudis and Pallis, 2004; Bichou and Gray, 2004; Verhoeven, 2010; Heaver et al, 2001; Wang and Slack, 2004; Notteboom and Rodrigue; 2005, Haugstetter and Cahoon, 2010). Concepts from strategic management research are increasingly brought into the field of port management studies (Woo et al., 2011), although there are still many untapped research opportunities (Haugstetter and Cahoon, 2010). A vast amount of literature on the position and strategy of the PA takes an institutional perspective and focuses on the port administration model in which the division of responsibilities over public and private actors is key (Goss, 1990; Baird, 1995, 2000; Baltazar and Brooks, 2001; Wang et al., 2004; Chen, 2009). The resulting models have helped structuring the thinking about governance in ports and the position and role of the PA. Common understanding is an increased involvement of private sector in port operations with the PA acting under a landlord principle. However the models do not cover the complete range of PA governance models in practice (Brooks and Cullinane, 2007). Subsequent work on changes in the port administration model (see De Langen & Heij, 2014 for a recent overview), has shown that many ports have undergone a transition towards “a port industry where a publicly owned landlord PA operates as a commercial undertaking and with an appropriate regulatory framework in place” (De Langen & Heij, 2014: 399). There is a limited set of publications that explicitly focus on strategies of PAs. In his seminal work in 1990 Goss (Goss, 1990) identifies four strategies that PAs can follow: 1) being a minimalist PA and letting the private sector be in control of all cargo handling functions, 2) imposing some ad hoc control on the private sector, 3) actively introduce competition by means of well thought concessioning policies, 4) keep everything in public hands. Although Goss argues that the outcome should depend on specific goals and context of the PA, the third strategy on average gets the highest awarding. Goss’ approach focuses on the relation of the PA with the cargo handling business. Taking a wider perspective on ports as a complex of many economic activities (Bichou and Gray, 2005; de Langen and Haezendonck, 2012), results in a more encompassing analysis of PA’s strategies. De Langen (2004) focuses on the governance of the whole port cluster and describes a potential role for a PA as so-called cluster manager. This role is based on the role of the PA in

---

2 Indeed, following this seminal paper, a substantial body of research has addressed the issue of concessions in ports (see for example the special issue on Concessions in Maritime Policy and Management, eds. Notteboom et al., 2012). Through concession policy port authorities can retain some control on the organization and structure of the supply side of the port market and can encourage port service providers to optimize the use of scarce resources.
addressing collective action problems as they exist in the port cluster. Analysis shows that the PA is in the right position to develop ‘collective action regimes’ by acting as a cluster manager, for example in ensuring hinterland access (De Langen, 2008). Subsequent research argues that driven by increased financial accountability and autonomy as a result of institutional reform, PAs might even go beyond the role of a cluster manager, expanding their strategic scope and changing their business models (Hollen et al., 2013) by developing entrepreneurial activities and expanding their operational domain internationally (Verhoeven, 2010). A couple of studies consider the strategy of the PA in relation with other players in the port complex. Dooms and Verbeke (2007) apply a value chain concept to emphasize the relevance of stakeholder management as one of the strategic activities of PAs. Hall and Jacobs (2010) elaborate on proximity between actors, not only from geographical but also from organizational perspective. In their paper they stress the importance for the PA to position itself with the right distance towards port actors: connected but not too closely interrelated. Balthazar and Brooks (2007) stresses the relevance of a strategic fit between the port’s operating environment, the strategy and the structure of the port and concludes that it is the PA’s role to align the environment of the port with the governance structure and the strategy for the port. Changes in the logistics environment of ports with increased attention for logistics chain performance, drive PAs to look beyond the geographical domains of their ports and become networking organizations (Notteboom and Winkelmans, 2001; Notteboom et al., 2013), acting within a changed business context (Robinson, 2002, 2006). PAs might develop a “smart” role in improving interconnectivity and interoperability between private actors (Chlomoudis and Pallis, 2004). However, within a port context, PAs can be highly institutionalized organizations (Child et al., 2012; Notteboom et al., 2013), locked in national regulations and local structures and values, influencing both their behavior and it’s’ outcomes (Hall 2003; Debrie et al., 2013). Thereby, PAs themselves can be institutions to other actors, if they have a mandate from public authorities to issue regulations and norms for actors within the port’s jurisdiction (Hall, 2003).

This PhD research on the PA strategy builds on a set of foundations laid by previous research as can be derived from literature.

- PAs become more autonomous, financially self-sustaining organizations which increases their needs for more commercial, business firm alike strategies, (see Verhoeven 2010; De Langen and Heij, 2014).

- Just like other business firms PAs can benefit from reconsidering their business models (see Van den Berg et al., 2014; Hollen et al., 2013).

- Just like other business firms, PA’s strategy making can gain by using concepts from business management research (see Woo et al., 2011; Haugstetter and Cahoon, 2010).

- The institutional context of PAs substantially guides but also conditions their strategic possibilities (Hall, 2003; Balthazar and Brooks, 2007; Notteboom et al., 2013).
- The relative position of PA’s to the port cluster and to their relevant business networks impacts their strategy making (see De Langen, 2004; Hall and Jacobs, 2010).

1.4 Structure of the research and thesis set-up

The above presented foundations form the starting point for the different research activities that together form this PhD research on the strategy of the PA. Figure 1 gives an overview of the different research activities and how they are embedded in the overall strategy-making framework of strategy process, strategy content, and strategy context.

![Figure 1: Structure of Research Steps](image-url)

The chapters of the dissertation (2-6) representing the above research structure, represent published research papers. Some overlap exists in introduction sections and theoretical elaborations.

Chapter 2 characterizes the PA and explores the possibilities for bridging general strategy analysis with PA analysis. Research questions underlying the paper are:
- How do PAs characterize from an organizational and institutional perspective?
- What does this mean for the applicability of theoretical concepts from strategy content research?

Using literature from public management theory, the PA is characterized as an organization that occupies a space between government and private business: a so-called shared value organization. The chapter further identifies the main strategic challenges that PAs face. Additionally, the chapter seeks to determine whether specific actor-related attributes can be validly balanced against different theoretical perspectives on strategy content and strategic analysis.

Chapter 3 adds to the understanding of the PA’s strategy process by applying a cognitive perspective. The research questions guiding the research are:
- What is the relevance of a cognitive perspective for the strategy-making of a PA?
- How do the strategic beliefs of PAs compare with ‘regular’ firms?
What impact does the institutional structure of PAs have on their strategic beliefs?
The strategic cognition of firms’ executives constitutes one of the explanatory variables for their strategic decision-making process. Furthermore, cognitive processes are influenced by the contexts, both past and present, of the executives and the organization. As a result, managerial perceptions may vary across industry contexts and histories. The research herein builds upon this proposition and hypothesizes about the overlaps and divergences in strategic beliefs between the executives of PAs and those of ‘regular’ for-profit firms. The hypotheses are tested by applying a survey-based measurement tool built around eight paradoxes underlying strategy formulation. The chapter also explores the differences in strategic beliefs between PAs with a more governmental character and those with a more businesslike character.

Chapter 4 empirically researches the strategic scope choices of a worldwide set of PAs and answers the following research questions:
- What is the strategic scope development of PAs worldwide?
- How does this relate to their institutional structure?
The chapter first conceptually defines a PA’s main directions for strategic scope development. In following, the chapter describes the empirical work, which entailed sending an extent survey to the executives of all major ports worldwide. The survey contained specific questions regarding PA’s strategic scope, institutional context, and general context. Afterward, the chapter offers a statistical assessment of the relationship between the PA’s strategic scope (goals and activities/functions done by the PA) and their institutional characteristics. A factor analysis is employed to identify consistent and recurring patterns of strategic activities. Further statistical analysis is applied in order to explore the relationships between PA’s institutional structures, strategic goals, and strategic activities.

Chapter 5 focuses on one of the strategic scope dimensions through which PAs can expand their strategic position: the hinterland. Using a case study approach, the chapter discusses the strategic reorientation of both PAs and terminal operators towards the port’s hinterland and the implications for the interrelationship between these actors. The questions underlying this research step are:
- What factors guide a PA’s logic when developing hinterland strategies?
- What role does interdependence play in this process?
Building on various relevant concepts from strategy research and institutional theory, we drafted a framework that structures the empirical analysis. By applying this analytical framework to an in-depth analysis of two cases, the Port of Rotterdam and the Port of Barcelona, the chapter bases in the expectation that the strategic reorientations of the two interdependent economic actors cannot be analysed in isolation. Such an analysis asks for an integrated investigation of the impact of changing market forces, changing institutional forces and the effects of the interrelationship between the actors.

Chapter 6 focuses at another dimension for widening the strategic scope: internationalization. Specifically, the chapter explores the international component of PA strategy, a new strategy that is not yet widely adopted. The research questions are:
- What internationalization process do PAs pursue?
What are motives behind PAs pursuing internationalization? 
Do concepts from general internationalization theory apply?

This chapter explores the international component of port authority strategy by describing and discussing the case of the Port of Rotterdam in terms of establishing an international strategy. The objective is to understand what such a strategy entails and to discuss the logic of this internationalization strategy for port authorities. Guided by explanatory theoretical concepts from internationalization literature, this exploration focuses on the PoR’s international strategy formation and implementation processes, their expected results, and the context in which internationalization takes place. In doing so, insights regarding an emergent strategy are derived and further research questions are generated.

The last chapter synthesizes the conclusions of each research paper in order to answer the main research question. There is also a reflective discussion about the research’s results and implications, both managerial and scientific.

Table 1 gives an overview of the papers that form the basis for the chapters, with the journal of publication, the co-authors, the research goal, theoretical perspectives and the methods and data.

---

3 Chapter 6 is a – by the author of this thesis, i.e. the PhD candidate – substantially revised version of the paper of which the PhD candidate was the co-author. For all other papers the PhD candidate was the first author.
<table>
<thead>
<tr>
<th>Title</th>
<th>Authors</th>
<th>Journal</th>
<th>Research goal</th>
<th>Theoretical perspectives</th>
<th>Methods and data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beyond the landlord: the strategic scope of the port authority</td>
<td>Larissa van der Lugt, Michael Dooms, Francesco Parola</td>
<td>Research in Transportation Business and Management Published</td>
<td>Characterizing the PA as in between public and private and analysing the applicability of theories from strategy research</td>
<td>Public private distinction Theories of the Firm</td>
<td>Conceptual paper, literature study on distinction between public and private companies</td>
</tr>
<tr>
<td>Strategic Beliefs of Port Authorities</td>
<td>Larissa van der Lugt, Peter de Langen, Lorike Hagdorn</td>
<td>Transport Reviews Submitted</td>
<td>Exploring strategic beliefs of PAs and analysing the impact of institutional structure</td>
<td>Cognitive perspective</td>
<td>Survey, statistical data analysis</td>
</tr>
<tr>
<td>Beyond the Landlord: Worldwide Empirical Analysis of Port Authority Strategies</td>
<td>Larissa van der Lugt, Peter de Langen, Lorike Hagdorn</td>
<td>International Journal of Shipping and Transport Logistics Accepted</td>
<td>Analysing the strategic scope of PAs worldwide and the impact of the institutional structure</td>
<td>Firm expansion Institutional perspective</td>
<td>Survey, factor analysis, correlation analysis</td>
</tr>
<tr>
<td>Strategic Reorientation of Interrelated Actors: An Integrative Analysis of Hinterland Strategies of two Key Port Actors</td>
<td>Larissa van der Lugt, Suzana Rodrigues, Roy van den Berg</td>
<td>International Journal of Transport Geography Published</td>
<td>Developing an analytical framework for the analysis of the interrelated strategic reorientation towards the hinterland of a port’s key actors</td>
<td>Ports regionalization Co-evolution theory</td>
<td>Longitudinal case study approach</td>
</tr>
<tr>
<td>Internationalization Strategies of PAs: the Case of the Port of Rotterdam Authority (adapted version from published paper)</td>
<td>Michael Dooms, Larissa van der Lugt, Peter de Langen</td>
<td>Research in Transportation Business and Management Published</td>
<td>Analysing the internationalization process of a PA</td>
<td>Internationalization theories</td>
<td>Single case study</td>
</tr>
<tr>
<td>Syntheses</td>
<td>Summarizing conclusions, implications for research and practice</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
REFERENCES


