The role of a port authority is changing, due to the changing environment of the global transport industry. To stay competitive as a node in a global transport chain ports must market themselves, and this ta
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1. Introduction

1.1 Introduction
The market environment of seaports is changing. Ports are increasingly functioning as nodes in global supply chains, servicing large multinational corporations with complex logistical systems (Notteboom T., 2007). A transport customer more and more looks for a better service and fitter to his needs, with ‘just-in-time’ systems, complementary services of transformation, or transport systems in particular conditions (Pando, Araujo, & Maqueda, 2006). As such services provided by ports cover a wider range of activities and each port becomes more unique, tailored specifically to different customer’s needs. Two related trends are emerging in response to this changing environment.

Firstly the function of a port authority in the seaport is changing. It is becoming more complex and port authorities are becoming more involved in the operations of a seaport. Verhoeven (2010) and de Langen & van der Lugt (2007) both discuss this changing role of a port authority. One of the conclusion of the papers is that a seaport can benefits from increased involved of the port authority in activities that require collective action. One of these activities is marketing for the operations of the port.

This is closely related to the second trend, which is the increasing need for marketing seaports, in an environment where ports compete intensely for cargo flow. Ports and their respective port authorities used to service captive hinterlands located close to them and competition was limited. However the reduction in transport costs brought about by intermodal transportation and development in hinterland infrastructure has meant that more and more hinterland regions have become contestable and ports have to compete to serve them (Van Klink & van Den Berg, 1998). As such ports now have to be marketed more extensively than before.

Furthermore, the function of ports is becoming increasingly complex. As services are more differentiated than ever, there is greater need for marketing these distinctions to make, users as well as new potential clients, aware. Furthermore Parola et al (2013) explain that, in recent years there has been a trend in public sector reform, allowing publicly owned entities like seaports to become more and more market orientated, and thus pursue more advanced marketing techniques.

However end users of the port are not the only stakeholder that the port authority has to take into consideration. Ports and port users generate many externalities, externalities which consumers and the global community is becoming more and more aware off. Therefore the port must also target these issues in its marketing efforts. This will be explained in greater detail further on.

The paper also recognizes the fact that a port is also a place of employment, and thus some marketing effort is likely directed towards advertising the port as a place of employment. However this will not fall in the scope of this paper.
1.2 Research Question
For a port authority to undertake the responsibility of marketing the operations the port, is a relatively recent development. Furthermore, as explained, the increased need for marketing in the first place is also a recent development. Therefore it is not too surprising that there is a limited amount of literature on the topic of marketing from the perspective of a port authority. Some notable papers on the subject are Bernard (1995) and Cahoon (2004).

Bernard (1995) gives a very extensive, yet purely theoretical overview of the marketing communications techniques and how they are used, as well as some strengths and weaknesses of the different methods. However there is limited explanation of their application to port authorities, which as mentioned before have a very unique business model as well as marketing environment.

Cahoon (2004) on the other hand surveyed Australian sea ports to outline which types of marketing activities were actually being implied by sea ports. However with a lesser explanation on how or why they were employed. Both these papers also focus only on marketing the services of the seaport to current and potential clients, but ignore the other stakeholders mentioned above completely.

The aim of this paper is to give a more complete view on the structure and purpose behind the marketing communications mix of a port authority. The paper aims to identify the strategic objectives of a port authority, and explain how the different marketing communication channels are employed to pursue these objectives, and based on academic of the marketing communications mix, justify the use of the respective channels. The paper will be more complete, as unlike previous literature, this paper will focus not only on end users of the port as stakeholders, but also the government and public as stakeholders to be targeted by the marketing communications of the port authority.

The research question thus is:

“How is the conventional marketing communications mix adapted by a seaport?”

An important thing in marketing to consider is that in recent years the internet has become ubiquitous in the lives of consumers and businesses, especially in the form of social media. Advances in web based applications have changed the paradigms of marketing for the 21st century (Hamill, 1997). The current literature on marketing communications for port authorities, mentioned above, covers this area, of social media as a marketing tool, only to a limited extent and not in much detail. However social media has had a profound effect on the marketing communications of businesses in other industries (Erdoğan & Çiçek, 2012). This paper will try to establish how, social media can be applied to the communications mix of a seaport. Therefore the paper will be answering the sub-question:
"How has the explosion of social media marketing influenced the marketing communications mix of sea ports?"

This paper will specifically focus on landlord ports, where the port authority is public entity and the owner of the infrastructure and also acts as a regulating body. The port operations are carried out by private companies who own and operate the superstructure but pay rent to the landlord. This is indeed the most common form of structure for medium and large ports worldwide (PPIAF, 2007). This is a very important distinction to make as the marketing objectives of ports with a different structure may vary significantly.

Furthermore, the paper will look at those ports that have a certain degree of freedom and autonomy from the public sector, and are thus free to pursue profit maximizing objectives. This will be discussed in more detail in the section “characterization of a port authority”.

1.3 The structure of the paper
The paper will now proceed by reviewing conventional marketing literature in section 2. Section 2 will look at the role of marketing in an organization and distinguishing strategic and operational marketing. It will also look at literature to distinguish marketing business to business from marketing business to consumer. At this point the paper will discuss the academic literature on the marketing communications mix, looking at the strengths and weaknesses of its different elements. It will also examine when and how they are best employed. This will be the academic foundation of the paper, and these concepts will be used as the foundation to explain and justify the marketing communications structure we, in some cases, observe and expect to find being utilized by port authorities.

The paper will then also proceed to look at more recent literature to examine the impact social media has had on the marketing communications mix, which will help to answer the sub question of the paper.

After reviewing the marketing literature, the paper will proceed to section 3, to describe the main business model of a port authority, and what its strategic objectives may be. This will be based of literature on the port authority and seaport industry. This will help to illustrate how the business model of a port authority is unique and thus requires a non-conventional structure for its marketing mix.

Given the characterization of a port authority and its strategic goals, and the foundation of conventional theories on the marketing communications mix, the paper will hypothesize how the marketing communications mix may be structured, and how the channels are utilized by a port authority and where possible will provide examples of where this can be observed in real ports around the world, in section 4.
In order to give the paper real world economic validity, the paper will also perform a more in depth case study on the marketing communications mix for the Port of Rotterdam in section 5, using online resources as well as interviews to gain insight into the strategy and reasoning behind using certain communication channels. The interview will reveal more about the channels used in business to business communications of the port, which may otherwise be difficult to observe. From here, the paper will compare the hypothesized marketing communications mix to that of the port of Rotterdam, discuss and try to justify and similarities and differences between the two. Before ending, the paper will note its short coming’s and give recommendations for further research, finally summing up the paper to a conclusion.

2 Marketing Literature Review

2.1 The role of marketing in an organization
The term marketing is an extremely broad one. Frederick & Webster (1992) describe the changing role of marketing in a business. Traditionally the role of marketing was looked at as an optimization problem, regarding prices, revenues and profits, using marketing research to equate marginal revenue and costs for profit maximization. However the role of marketing has since evolved to a more holistic approach. It is a managerial way of thinking rather than a fixed set of problems and frameworks. It aims to encompass every aspect of the organization and make sure it maximizes value to the customer from every function of the organization. A modern definition of marketing is, what an organization must do to create and exchange value with customers (Silk, 2006). There are two stages to this simple definition however. The first stage is the strategic marketing stage. According to Lambin et al (2007), here is where the organization conducts its initial market research. That is, a firm will analyse what problems consumers have. Given the problem, the business will determine how it can use its resources, its production technologies or knowledge to provide a solution to that problem. These consumers could be individuals as well as other businesses. It includes segmenting the market, analysing the competitors in the market and then positioning itself in said market accordingly. That is, the organization will decide, given the market, which specific consumers it will serve, and how it will set itself apart from competitors. Often this is influenced by the strengths and weakness which defines a particular organization (DiMingo, 1988). This is sums up the strategic marketing stage, decisions are made for the medium to long term and a company’s mission usually reflects the strategic marketing plan (Lambin, Chumpitaz, & Schuiling, 2007).

Once the strategic marketing strategy has been established, it is put into action via the operational marketing plan. According to Lambin et al (2007) operational marketing is concerned with the 4 P’s of marketing (Price, Product, Place, Promotion) or in other words setting prices, fixing the distribution
channels, setting the communications mix and designing the product packaging. The main aim of operational marketing is to achieve short to medium term goals such as market share and sales, in order to then fulfil the mission, or long term goal of the company reflected in the strategic marketing plan. It is the more visible, action orientated part of marketing, which is why it will be the operational marketing which is the focus of this paper. In order to give this paper a specific focus, it will look specifically at the marketing communications mix.

2.2 B2B vs B2C marketing
Before getting to the communication mix however it is important to also note that both the strategic marketing and the operational marketing plan are influenced by the type of market served by the organization, specifically whether a market is as business to business market or a business to consumer market. In fact whether a business chooses to serve other businesses or focuses on consumers is already part of its market positioning which is decided in the strategic marketing phase. Brennen et al (2014) explains that there are 3 categories which outline differences between B2B and B2C marketing. These categories are, the market structure, buying behaviour and marketing practices.

Regarding the market structure, B2B markets are often more concentrated than B2C markets. That is there are fewer buyers and fewer sellers. However the overall value of the market is larger. Even though there are fewer buyers, buyers are also more heterogeneous, that is each business has unique needs.

The buying behaviour is particularly influential in shaping the marketing communications mix. The buying behaviour in B2B markets exhibit more complex buying processes, involving more contracts and other paper work, where buyer and seller are interdependent, the purchase cycles are longer and the overall value of transactions are much greater. As a result, buyers in B2B markets often have dedicated professional teams of individuals who go through the purchasing process.

As a result of these differences there are different practices between B2B markets and B2C markets. For example the use of personal selling is thought to be more common in B2B markets, but branding is more important in B2C markets. Whether the port authority fits in to the typical behaviour of B2B or B2C markets will become clear as the paper develops.

2.3 The marketing communications mix
The marketing communications mix, consists of 8 types of marketing communications. These 8 forms of communication can be segregated into two broad categories, mass marketing and personal marketing. Mass marketing includes, advertising, sales promotions, event marketing and public relations. Personal marketing on the other hand, consists of direct and Interactive marketing, word of mouth marketing and personal selling. Based on the differences outlined by Bernnen et al(2014) between B2B and B2C markets, we can expect mass marketing to be more dominant in B2C markets.
and personal marketing to be more prevalent in B2B markets. However there are always exceptions and grey areas. The aim of the marketing communications mix is to deliver a unified customer focused message, which reflects the business goals and objectives, across its different mediums of communication (Boone & Kurtz, 2007). However, each medium has its own unique advantages and drawbacks making some more suitable for certain products, businesses and situation. There is abundant literature on the marketing communications mix available, (Koekmoer & Bird, 2004; Keller & Kotler, 2008; Dahlen et al, 2010). For the purpose of this paper, there is little differentiation within these different sources, and thus the following is summarised predominantly from Keller & Kotlers work.

2.3.1 Advertising
Advertising is defined as any paid for of non-personal presentation and promotion of ideas, goods or services (Keller & Kotler, 2008). Advertising itself has 4 main purposes, attracting attention, informing, persuading and reminding. It can be transmitted through, radio, television, the internet billboards and many other mediums. The key characteristic of advertising is that it is a one way communication to a target audience (Koekemoer & Bird, 2004). Thus the target audience will often define the medium through which an ad is transmitted.

Advertising as illustrated above advertising covers a broad ranges of functions and mediums, and thus it is difficult to pinpoint specific advantages of this form of communication. However Kotler and Keller (2008) highlight 3 which hold across all mediums. Firstly advertising allows a business to repeat a message many times, this can subconsciously influence a consumer to try out a good for the first time or purchase it again.
Second, advertising through use of artful sound, picture and print can evoke emotion from the consumer that they will relate to the company or product.
Lastly advertising has a large reach. This depends somewhat on the medium used; however the most popular ones like televisions and the internet have a very large reach.
A potential disadvantage of advertising is the fact that since it is a paid for, non-personal presentation, the company has no direct control over the ad once it has been released. It cannot be altered or changed in real time. Furthermore Dahlen et al (2010) argue that advertising media is become relatively more expensive when compared to newer media channels.

2.3.2 Sales Promotions
Sales promotions are incentives that encourage consumers to purchase, or purchase more of a particular product or service. It can come in many forms, such as coupons, price cuts, loyalty programs, free samples and many more (Pelsmacker, Geuens, & Van den Bergh, 2007). According to Keller and Kotler (2008) these types of promotions are predominantly short term. The advantage of sales promotions, in terms of marketing, is that there is monetary incentive to
purchase a product. The fact that they are short term, and temporary also means consumers are encouraged to purchase the product immediately or in the new future, and as any business knows, money today is always better than money tomorrow.

2.3.3 Event Marketing
Event marketing consists of company sponsored events or activities, ranging from sporting events, to fairs, festivals, annual events and entertainment tours (Hoyle, 2002). Event marketing, like advertising, is very broad; however it is still possible to define some general traits of event marketing. Event marketing brings awareness of the company, and of course if the event is successful, this awareness will result in positive association to the company and enhance the corporate image. Depending on the purpose of the event, it can also highlight the commitment a company has to the community or other social issues. However event marketing is not something for smaller firms, as it can be very expensive and time consuming to organize. Furthermore, unless the company is merely a sponsor to an event, it also takes additional marketing efforts to market the event itself. If on the other hand the company is just a sponsor then the success of the event is out of the control of the company.

2.3.4 Public Relations
Public relations are communications which are aimed at improving the relationship, not with clients or suppliers, but rather with other interest groups of the business. A public is any group that has an actual or potential interest in or impact on a company’s ability to achieve its objectives (Keller & Kotler, 2008). The key feature of Public Relations is that the communication is often not directly control by the company, but by 3rd parties, mostly independent news agencies or sections of government. The main advantage of this is that 3rd party news stories have more credibility than company funded advertising, since supposedly the 3rd party is impartial.

2.3.5 Direct Marketing
Direct marketing is characterized by marketing efforts that move, as the name implies, directly to the targeted customer without the use of a 3rd party. It includes, but is not limited to telemarketing, direct mailing, catalogues and websites. The major advantage of direct marketing is its ability to have customizable messages for individual consumers, and the ability to also alter the message according to how consumers respond. It is a way of building relationships with customers, and is closely related to customer relationship management.

2.3.6 Interactive Marketing
The definition of interactive marketing is somewhat blurred. Interactive marketing is characterized by marketing communication which flows two ways, from business to customer and vice versa. Channels of interactive marketing include official websites, mobile phones and online advertisement. Thus interactive marketing includes elements of advertising, direct marketing, word of mouth marketing
and pretty much all other forms of marketing but uses the internet to enhance these by making them more interactive. Social media marketing is one such form of interactive marketing and is discussed in greater detail in the next section of the paper. In order to define clearly the scope of Interactive marketing for this paper, interactive marketing will include any web based application outside that of social media, thus it is most likely to just refer to the official web page of a company.

2.3.7 Word of Mouth Marketing
Word of mouth marketing basically constitutes consumers communicating with each other rather than the firm communicating to the consumer. However firms can impact this type of marketing by giving consumers something to talk about, or creating a so called buzz. Word of mouth marketing is especially common in smaller, consumer orientated businesses such as restaurants.

2.3.8 Personal Selling
Personal is communicating value directly to a custom through a firm’s representative sales person. Personal selling is often a follow up from direct marketing or some other form of marketing, once customers have already been identified. That is, personal selling is employed closer to the point of sale. Personal selling is also often focused on long term relationships rather than one off sales. Sales personal are able to learn the needs of the customer as the relationship develops and become even more effective in their marketing.

With personal selling, the firm is able to communicate the value of the product in much more detail, and is able to address any questions or doubts the customer may have. Therefore this is especially useful for business to business relationships or products which are more complex in nature.

2.3.9 Summary
In summary, there are many different kinds of marketing techniques, not all of them are specific to one category, and in fact more often than not marketing communications overlap with several of these categories. Different literatures may have variations in titles for each of the categories, however all of the literature used in this paper, regarding the marketing mix, is unanimous in the thought that it is key for all marketing communications through the various channels to be consistent and in synergy.

2.4 The impact of Social Media
In this section, the impact of social media on modern marketing communications will be described. It is important to determine the extent and use of social media in modern marketing strategies so that this paper is relevant in for marketing in the 21st century. Furthermore, this will again be the theoretical base upon which the sub question of this paper will be answered.
Social media is a form of online interactive marketing tool. The explosion of online social media usage amongst consumers has changed the way a firm communicates with its stakeholders drastically (Mangold & Faulds, 2009). Therefore it is important to examine the impact it has had on business marketing communications before making other analysis.

Social Media as a marketing tool can communicate messages, images and videos, utilizing several different online social media platforms. The 8 most popular ones are, media sharing sites like YouTube, social bookmarking and review sites such as Reddit, review sites, forums, virtual worlds, networking sites like Facebook and LinkedIn and lastly blogs and microblogs such as Twitter. Social media can be used to market anything, from goods and services, to events, ideas and causes (Thackeray, Neiger, Hanson, & McKenzie, 2008). Facebook is currently the largest social media platform with 1 415 million users as of march 2015. It also has the most marketers active on it (Statista, 2015) . A clearer idea of the extent of social media usage can be seen in figure 1.

![Global social networks ranked by number of users 2015](image)

*Figure 1. Source: Statista (2015)*

In another market survey of 3342 marketers, by Stelzner (2011) it is reported that 93% of companies were already using social media as a marketing tool, unsurprisingly with Facebook being the most dominant one. Furthermore social media usage continues to expand (Lenhart, 2015). Based on this it can be expected that its use as a marketing tool will continue to grow as well.

A defining characteristic of social media marketing is that not only can firms communicate with consumers, but consumers can give feedback to the firm in real time (Hoffman & Fodor, 2010). Firms can adjust their marketing campaign frequently in order to adapt to new information or make changes in response to consumer feedback, allowing for greater Interaction and individualization (Keller & Kotler, 2008)

In terms of outward marketing communications, social media marketing has two other advantages.
Firstly social media is great in terms of reaching many people. A business can initiate communication via social media and depending on established the firm is on social media (e.g how many people currently follow their Facebook page) and the form of social media used, this message can reach anywhere from a few hundred to millions of consumers. However even more importantly through social media these consumers can share and pass on the message to potentially millions of other consumers (Mangold & Faulds, 2009). This can be compared to word of mouth marketing, however on a much larger scale. Secondly, social media marketing is comparatively cheap compared to other forms of marketing, according to Zarrella (2009) “it costs almost nothing”. This means it is especially cost effective in terms of the size of the audience. Furthermore, whether marketing a product, service, opinion or event, any social media activity provides exposure to the company.

The far reach of social media means social media marketing campaigns can have profound impacts on a business, not only in terms of sales figures but also image and recognition. Therefore firms need to be wary of the fact that social media campaigns can go wrong and affect not just a single product, but their whole image. Social media marketing campaigns in the past have had large, positive and negative impacts, and Hoffman & Fodor (2010) provide several examples of both. However Social Media does not only work for business to consumer marketing but also has been reportedly successful for business to business marketing. Businesses often use social media as a form of direct marketing and personal selling via social networks such as Facebook and LinkedIn. It has also shown to be an effective tool for firms to search for and identify suppliers as well as selecting the final supplier. It also functions to strengthening business relations and exchanging information between them (Brennan, Canning, & McDowell, 2014).

3. Characterization of a Port Authority

Having summarised the theoretical framework of the concept of marketing, specifically the concepts of the marketing communications mix, and how it related to the overall marketing objectives of the firm, the paper will proceed to characterize the port authority. A port authority is a very unique form of business, unlike any other type of organization. The following section will outline the characteristics that set a port authority apart from different forms of business. It is important to explain how a port authority is different from other businesses to justify, as well as predict what adaptations are present and could become utilized in its marketing mix.

3.1 The business model

Before answering, how a port can market itself, it is important to describe in more detail, the basic business model of the port authority and the port itself, that is who the customers of the port authority are and what the port authority actually offers. A port authority directly sells the land around and in the port. Thus, the direct customers to the port are the port operators. These are the terminal operators,
shipping lines, inland transportation companies, transport intermediaries, logistics service providers and other port related service providers (de Langen, Nijdam, & van der Lugt, 2012). The port also collects fees from the shipping lines who dock in the port, known as port dues. In turn these operating companies collectively provide services to the end users of the port, who are the importers and exporters who want the cargo moved to and from the hinterland. Often ports handle many different types of cargo, ranging from breakbulk to containers (de Langen, Nijdam, & van der Lugt, 2012), and these are the kind of ports this paper focuses on. Often the operating companies specialise in different types of cargo, meaning that a port that handles multiple types of cargo has a large amount of different operators present.

The role of the port authority extends beyond merely owning the land and nautical access. De Langen & van der Lugt (2007) describe in detail the extended role of a modern port authority. For a port to operate efficiently a lot of coordination is required between the different actors operating within the port. Coordination does not take place on its own amongst private firms in a port. Therefore a port authority is able to take on an active and managerial role. The port authority is able to implement coordination mechanisms, whole to be more competitive and efficient as a node in a logistics chain. There are also many activities within a port which would benefit from collective actions such as human resource development, investments in new technology and as mentioned in the introduction, marketing. A port authority is able to take an active role by providing incentives for collective action, and also being managing certain activities that benefit from collective action, such as marketing (van der Lugt & de Langen, 2007). Thus the main business drivers of the port authority are its physical attributes like its land and nautical access points but also its managerial and organizational attributes. The main feature of the land that makes it so valuable is the indeed the fact that it is so close to the nautical access point. The shipping lines and port companies value the port on a range of other criteria, such as its nautical accessibility (compared to other ports), connectivity to the hinterland, its infrastructure, and also its regulations and prices. The criterions for port selection are explained in greater detail by de Langen et al (2012). However, the port of today also serves the functions of a logistics and distribution centre, as well as an industrial site, thus other types of companies also seek land there and the management of the port and the different actors becomes even more complex. This is explained in greater detail later on.

3.2 Marketing to end users

The port land and demand for the other services a port authority provides are a derived demand. The drivers of this demand are the transport customers, or the customers who need to have goods moved. These are known as the end users. That is, the customers of the companies operating in the port. Ultimately the goal of the end users is low cost transportation of cargo. However Murphy et al (1992) indicates that there are also other important aspects, such as reliability, security and the ability to convey information regarding shipments to end clients. This is where the collective action problem
mentioned previously comes in. End users are not interested in the individual links in the transport chain, rather the entire supply chain. Therefore it is beneficial for the port authority to market the port as a whole, possibly in addition to individual operators marketing themselves. However, this presents a challenge, as the port authority is then marketing a range of services it does not directly provide or have direct control over. In fact the total process of importing or exporting goods through a port involves several different actors, as mentioned earlier. Often the companies responsible for the different stages are to some extent vertically integrated, however sometimes they are not. In addition there can be several companies providing the same or similar services. These companies are also competing with each other for business. As mentioned previously, supply chains and logistics networks are becoming increasingly complex in today’s world, and the information the port authority needs to convey mirrors this complexity.

This presents a problem in that the port authority may not have perfect information regarding the performance of the operations within the port, as companies may not wish to publicly disclose certain information. For example a terminal operating company may have impressive performance figures such as the turnaround time for ships. This could be used as a selling point for the port authority; however the terminal operating company may not wish to disclose these figures to its competitors. On the other hand, the competitors may also not want the port authority to disclose these figures to the public, if theirs are worse as they are in competition with the other terminal operator. Nevertheless the port authority aims to market itself in totality. This presents the need for a port authority to be in constant communication with its operators, and for the operators and port authority to trust each other.

3.3 Ownership structure
Traditionally a port authority was commonly run as a fully public owned entity. However, as mentioned in the introduction the market environment of a port has become much more competitive in recent times, and the role of port authorities has been extended. In order to become more efficient in its operations many governments and port authorities have looked to adopt certain characteristics of the private sector. In order to achieve this, ports can go through several processes which incrementally make the firm more autonomous (PPIAF, 2007). These processes are modernization, liberalization, commercialization, corporatization and ultimately privatization. This paper will not explain each stage in detail; however PPIAF port reform toolkit (2007) gives a very detailed explanation of each stage. What is relevant for this paper is that a landlord port is at any of the stages before complete privatization and is a very unique form of business. It is able to varying degree employ private sector practices, free of government restraints such as laws and policies, pursue private sector goals such as profit and market share, and most importantly for this paper, manage its own marketing communications mix. Yet the port is still government owned. As such the port authority has the motivations of a public entity, such as maximizing social welfare or providing social services.
However it also has the motivations of a privately owned corporation such as profit maximization, market capitalization and gaining market share. These are very different and can at times conflict with one another. For this paper, the former objectives will be referred to as the ports public objectives, and the latter as the ports private objectives, both are explained in more detail in the following section.

3.4 Objectives

As mentioned in the introduction, ports compete as nodes on global logistics chains. The term port here refers to the port authority as well as the private companies operating in the port, whose customers are the beneficiaries of that global logistics chain. These will be referred to as the end users. Therefore the port authority aims to position itself as a location that facilitates these operating companies to maximize their performance and profits. As mentioned in the business model of a port authority, there are several actions and activities a port authority can be involved with or manage that help achieve this. Thus private motives of the port authority are concerned mainly with the performance of the operating companies, and ultimately the demand for their services and land as a whole. If the performance, and revenue of the operating companies exceed those compared to operating companies in other ports or hinterland regions, locating in the port becomes desirable for private investors. Thus the port authority has the ability to charge higher rents and port dues, and ultimately make more revenue and possibly profit. Likewise if authority is able to lower its own cost, it may be able to lower land prices or port dues, and in that way attract more private operating companies. In de Langen (2006) it is explained that the transport companies operating in the port favour a high level of infrastructure, security, swift customs procedures and minimal intervention of the port authority regarding safety. Furthermore they favour transport friendly policies regarding emissions, and hinterland infrastructure charges. An issue for the port authority is that, while it tries to pursue these so called private objectives, it does not directly have control over some of the factors mentioned above, for example national transport policies or customs procedures.

As described previously, the port also has so called public objectives. Firstly, the port itself through its presence and economic activity has many spill-over effects which are of public benefit, such as trade enhancement, second order increases in production volumes, and collateral increases in trade-related services (PPIAF, 2007). However there are also other public goods produced, such as safety to the coast and marine biology and port security. Furthermore there are other public interests like that of the national government and local government. National governments are interested in maximum welfare effects through low generalized transport costs and limited negative externalities (de Langen P. W., 2006). These public objectives can conflict with private interests. For example the public interest to keep emissions low, in order to minimize negative externalities, might result in stricter regulations on emissions of machines used in the port. This in turn could drive up costs for private terminal
operators. Therefore private goals and public goals can conflict. Another example is a trade-off between port development and urban development of housing, or other amenities. It is the job of the port authority to communicate with the government as well as the private sector to find a balance between the sides.

It is also important for the port authority to achieve these so called public objectives because, as mentioned before, the national and local government can influence certain factors and policies which impact the ability of the port to achieve its private objectives. Therefore the port often has public and political connections it must maintain. This is especially true for the public. Ultimately, in a democracy, the public elects the government. The port engages the public so that the public community supports governments with pro port policies. Hence a port must not only market itself to the private sector but also to the public as an organization that is able to maximize social welfare.

3.5 Dominated by large players
An important point to note about industry of ocean freight and sea ports is in recent years it has undergone a great deal of vertical as well as horizontal integration, particularly in the container cargo sector. This has happened between the different actors in the transport chain, such as the shipping lines, terminal operator and logistics companies and forwarders. The main reason for this was to pursue the significant scale economies available in the freight transport and logistics industry. Notteboom & Winkelmans (2010) explain this trend in greater detail.

The result of this integration however has created a very unique situation for the port authorities, where its port users have a great deal of market power especially when compared to some of the other stakeholder groups. The port users of today have been described in several papers as being powerful and “footloose” (Heaver et al, 2010; Verhoeven, 2010; Notteboom & Winkelmans, 2010). The result of this market power is that a significant portion of cargo throughput is the result of very few businesses or decision makers, and thus the port authority has to be very considerate in any decision it takes regarding policy, prices and regulations. Losing one large customer could result in loosing many more businesses down the transport chain.

3.6 The port as a cluster
A port does not only function as a transportation hub. De Langen, Nijdam and van der Lugt (2012) outline 3 key port products. They are the cargo handling product, the logistics and storage product and the manufacturing product. The cargo handling product is the core product, as discussed before it involves the shipping lines, terminal operators and inland transport firms. This is the sector where the most vertical and horizontal integration is present. The main competitions for these firms as clients are other ports. The logistic product includes forwarders, and distribution centres. All 3 of these products also face all or some of the problems mentioned in the earlier point, in the sense that the overall port product is out of the hands of the port authority.

There is a second aspect to the three port products to consider. The three port products are interlinked.
The key product of the port remains the cargo handling product, however the logistics and manufacturing product are related economic activities. As explained by de Langen and van der Lugt, (2012) the manufacturing product benefits from the activities of the transport product and the logistics product. A good logistics product increases demand for the transport product and makes the port more attractive for manufacturing, while a good transport product increases demand for both logistics providers and manufacturing industries. For example a business may want to manufacture refined petroleum products at the port itself, where it receives new supplies of crude oil directly of the transport companies. After the refinement process is completed, it may be beneficial to store the product at the port temporarily until prices are favourable. At this point a logistics company at the port may organize for the products to be moved to clients in the hinterland. This example illustrates how all 3 port products can be utilized together by a single firm, which is the refined petroleum products producer. As such the port authority now has another position in the market. Not only does it sell land close to nautical access, but it also sells land that is port of an economic cluster. There are several papers on the benefits of economic clusters in general, and importance of managing this cluster from the point of view of the port authority.

3.7 Environmental Impact
Lastly, even though overall the port is a service provider, it is very land and capital intensive in its operations. Therefore a port can have a large effect on the surrounding community. While this is true for many large businesses, container ports, which are the focus of this paper especially, receive global attention in terms of their environmental impact and carbon footprint (Parola, Satta, Penco, & Profumo, 2013). Ports have a range of potential negative impacts, including on the quality of air, water, soil, biodiversity, as well as dust, noise, congestion and land use (Merk & Notteboom, 2013). Furthermore there is a trend of rising consumer awareness, about the environment, regulatory pressure to adopt eco-friendly products and processes, and concerns about health and safety (Global Industry Analysts, 2012). As such this adds another dimension to the marketing communications of the port authority, placing more emphasis on communicating not only with its current and potential clients but also the local and global community.

However it is not only the external stakeholders, such as members of the community, who express a desire for sustainable development and environmental concern. Port users and companies who receive goods through the port may also have interest for this. As consumers are more aware of things like the carbon footprint, they seek to purchase those goods from businesses that have eco-friendly value chains; as such it becomes a private business objective to associate with ports who endorse this.
4. Marketing communications mix for a port authority

In the previous sections of this paper, the purpose and general features of the marketing mix have been outlined. The distinctions between B2B and B2C markets have been made. Furthermore, the business model of a port authority has been explored and analysed. It has been established that a port authority, in a way has to market itself in a B2B market as well as in a B2C market. In this next section, the paper will take the first step of answering the main research question by examining how the different elements of the marketing mix can be employed by sea ports and which stakeholders and objectives of the port they target. This will be based of literature on seaports in practice, deductive reasoning from the previous sections as well as examples from observable marketing communications of seaports in practice.

4.1 Advertising for a port

Advertising via traditional channels like television, radio or billboards, may not be the most effective means of marketing a port for its private or public objectives. Often the large multinational businesses, which are dominant in the seaport and shipping industry already have ties to shipping lines, freight forwarders and seaports and are aware of the services offered. In turn the shipping lines themselves may already have dedicated terminals at a certain ports. Large businesses may have dedicated divisions that manage their supply chains and suppliers. This does not mean they are not open to persuasion. However it is unlikely to come from a simple advertisement in a brochure or via the television. Furthermore, the strength of advertising of being able to repeat a message over and over or being able to evoke emotional connections to the product is not very relevant in the port industry. Setting up in a port or selecting a port for a supply chain is a large business investment, unrelated to desires or other human emotion, but rather is a calculated decision to minimizing cost, these 2 points reflect clearly the B2B nature of the port product.

When it comes to marketing itself to the public, a B2C market, advertising is also not commonly observed for a port authority. As mentioned, the port aims to market itself here as an organization that is able to maximize social welfare and overall benefit the community and nation. Regarding this there are more effective ways to pursue such objective, in particular public relations, which will be talked about later on. In practice it is also difficult to observe any traditional advertising of seaports, such as in the form of radio, television or posters.

However, through online advertising via social media a port authority may be able to attract new customers, and even other businesses looking set up in the port itself. As mentioned earlier, businesses often use social media to find and select potential suppliers for business to business needs.
(Brennan, Canning, & McDowell, 2014). Smaller or medium sized companies, new companies or other companies that are not yet established in international trade, particularly the complementary businesses to the core business of the port, such as logistics providers and forwarders, could be attracted via online advertising and networking social media sites. This advertising can even direct them directly to the official website of the port authority where they can begin to gather more information as well as be exposed to the ports other marketing communications.

4.1 Sales Promotion for a port
Sales promotions are a difficult concept to apply to a sea port, both to its users and its external customers, again due to the B2B nature of the market. Investments in a port are often for the long term, and as sales promotions are designed for the short term. The nature of the ports products itself make it difficult for there to be many forms of sales promotions. For example it would be difficult for a seaport to offer a free trial, simply due to the size and value of such a commitment. Furthermore, as explained previously the port products are often interconnected, complex and provided by several different businesses whose individual products and services come together in an integrated supply chain. As such, to offer a sales promotion of some sort it would also require immense amount of coordination between all the actors involved. This could lead to high transactions costs and ultimately would not be economically viable.

4.3 Public Relations for a port
Port authorities are likely focus heavily on public relations communications to achieve its so called public objectives. As mentioned in the characterization of a port authority, the port needs to market itself to the public as an organization that maximizes overall welfare, even though it is often the focal point of criticism regarding negative externalities. Therefore it is important for the Port to create a positive image of itself with the community. Furthermore, the port authority itself is public owned, although it has both private and public interests. As the port is publicly owned the port authority has an intrinsic motivation to engage in activities that benefit the community as a whole anyway for example investing in environmental projects to compensate for the negative environmental impact of the port itself. Community support is important to a port authority for a number of reasons, mentioned previously. Public relations are the best way to communicate these efforts, as they are the most credible. For example, a television advertising or direct mailing from the port itself, claiming to have invested in green technology or given charitable donations would not seem very credible. However a newspaper article or live coverage of an event for, say, the opening of a new park with member of the port authority present is a much more credible communication. Public relations can be observed to happen in practice. For example the port of Vancouver in Canada, has a programme that providers scholarships for education in fields related to port related studies like marine education, transportation, logistics, geography, environment and agriculture (Community Investment | Port
Metro Vancouver, 2015). The port of South-Hampton in the UK similarly, is committed to public relations with the community; they have a program called charity of the year. This year the charity they are supporting is The Society of St. James (Charity of the Year - Southampton VTS - ABP Southampton, 2015).

Social media is useful here to extend the reach of public relations. Even if the effects of a public relations charity or scholarship fund do not extend beyond the district or nation, there is still benefit from spreading the message as it will provide a positive image of the port. Public relations efforts may also have a positive spill over effect to the channels of personal selling and direct mail. Even though the communication of public relations is aimed at the public, private investors and potential end users may also become aware of them. A port that is in good relationships with the community may also be a positive sign for investment.

4.4 Event marketing for a port
Event marketing is a suitable channel for a port authority. Firstly, event marketing is something very viable for a port, as it has sufficient size and resources to undertake this form of marketing. Port authorities can host lifestyle events, or sporting events, even though their products are not related to them. This is because by hosting events like these, the port authority can market itself as a social welfare maximizing business which garners support from the community and general public.

In practice many ports host port days, port tours or invite the public to the port in some way or another. Even though this is not exactly well defined, this falls could fall under event marketing as the port itself is the venue. It is great for educating and interacting with the public as well as providing exposure to the port. No other channels of communication would be able to communicate the level of information to such a large amount of people, in such a positive way. As mentioned previously, the port has an incentive to gain support from the public, as they can influence national policies that in turn affect the ability of the port to achieve private objectives. Educating the public about what goes on in a port ties back to the ports overall strategy to position itself as a public entity that maximizes social welfare. By educating the public, the public will have a better understanding of how the port indeed maximizes social welfare. This is also observable in practice. Some examples of the port authorities which host tours or invite the public into their port in some for or are the port of Hamburg, as well as the port of Antwerp.

Social media would be a great tool for generating the awareness for the port days or other so called events hosted by ports. The amount of people social media can reach is very great. It would be expected that a port authority would use multiple channels of social media to raise awareness for its events, especially if they represents considerable investment of resources.
4.5 Direct Marketing

Direct Marketing would seem to be a very important tool for the port authority in the B2B market. As mentioned before, the industry is characterized by very large companies with vertical and horizontal integration. As such the port authority aims to keep its large clients. Since the relationship between the port and the large users is already established direct marketing would be very suitable. The messages can be customized according to the needs of the company and there is a lot of control over the message itself, as there is no 3rd party involved. Direct marketing can also work to attract new companies. In the industry the large established players would be well known, and their representatives easily reached.

Furthermore direct marketing in the form on newsletters or emails is very cost effective. The port industry is always changing and new developments are a frequent matter. With direct mailing, the contents can be easily updated and reflect the current situation. Examples of port with direct mailing are, the port of Singapore, which has a quarterly publication called “Singapore Nautilus” (MPA - Singapore Nautilus, 2015), as well as the port of Rotterdam, which will be covered in more detail in the next section.

However a direct marketing may not be as useful for targeting potential new end users of the port, as if they have not done business with the port before, their identities would be unknown. This is where social media can help.

Social media can help the initial networking process between the port (its operators and port authority) and the end users. As mentioned before, social media will often direct potential end users to the web page of the port authority where they can then, in many cases, subscribe to the mailing list.

4.6 Interactive marketing for a port

Official websites of port authorities are a useful marketing tool towards end users. As defined earlier, the port product itself can be very complex and large ports often handle multiple different types of cargo. A website allows a potential client to so called, interact with a browser, by selecting which areas of the port product they are interested in, be it container shipping or breakbulk, or other logistics services. A customer is able to get a clearer picture of the operations of a port, and websites can contain links to all other channels of the port authority, such as links to personal sales teams, or other representatives of the port authority. The port authority’s official website is also often the place where subscription to direct mailing can take place. Furthermore, as mentioned before.

The paper can give examples of several official websites of port authorities with comprehensive coverage of services provided, and links to other channels of marketing, the port of Singapore, Hamburg and Antwerp are just a few among many.

Social media is defined to be part of the interactive marketing channel, but as proposed previously, as social media marketing has its own identity in this paper, the official website will be focused on for
the channel of interactive marketing. Social media and the official website work together to generate web traffic to the official website via social media and vice versa.

4.7 Personal Selling for a port
Given how the port has been characterized above, and the way personal selling has been described in literature, it would seem the personal selling is ideal for communicating with current or potential port users as well as end users. As is typical of B2B markets, the industry is dominated by large players; therefore a small quantity of personal sales people is sufficient to cater for the limited number of large players who represent a large portion of the market value. The port operations and port products itself are complex, so personal selling is able to provide the most detail regarding the product, in this case the infrastructure but also the ports policies and regulations which are very important to the port users. Sales personal are then able to answer any questions. As investments in port are typically also long term relationships, personal selling which transitions to customer relations is optimal changes in the port environment or vice versa. Furthermore the operating companies may work together with the port authority in marketing themselves to end users of the port. Personal communications are the also the best way to maintain positive relationships among the people in these organizations. This is also what is observed in practice. Bernard (1995) brings up 3 forms of personal selling in particular; these are international shipping exhibitions, port open days and direct business trips. This is difficult to observe in practice as most B2B communication is confidential. However what can be observed is the large number of shipping exhibitions that happen in practice around the world. The International Association of Ports and Harbours lists 29 upcoming events for the last quarter of 2015 alone (IAPH, 2015).
Social media can support personal selling in many ways. LinkedIn and Facebook especially help the networking and communication process between companies. Other social media platforms can be referred to keep clients informed with information about the port and the environment, for example via twitter.

4.8 Word-of-Mouth marketing for a port
As described previously, the port in general does not produce a consumer orientated product. Therefore this paper deems it a reasonable assumption that the port or its products is not something that would be talked in casual conversation or over dinner, by most people. However a port authority is involved in political and social issues. Ports are affected by transport policies and trade policies and therefore have political interest. Likewise ports serve a vital economical function, and as mentioned before it is in the interest of the national government for the port to perform well and provide low cost movement of goods. Therefore the port is a key player in the realm of politics. Furthermore ports impact and have the power to change the surrounding environment. Thus the port also becomes a key entity regarding social issues such as the environment. Therefore there may indeed be word of mouth
communication about the port authority, its policies and activities, which in turn can affect its image in the community, both with the public community as well as within the business community. However, the majority of the general public are not involved with politics, or and expert on environmental sustainability and thus traditional word of mouth marketing is still limited. However via social media the port can really strengthen its word of mouth communications.

Twitter, Facebook, Reddit and other social media sites where people share their opinions and communicate are a great place for port authorities to communicate with the public and generate word of mouth communication. This is less so regarding the actual port products, but more so to do with the ports image. Ports can share opinions on government policies or business developments, communicate their plans for future developments or promoting events such as port days. The difference key between traditional word of mouth marketing and that through the internet is that the internet allows people who have opinions on the matter and are knowledgeable regarding that matter, to come together more easily, using sub headings of web pages and simplifying the search.

4.9 Table Summary
A brief summary of the different channels, their target audience and relevance has been presented in figure 2 below. The term “relevance” refers to how relevant the marketing communication is for a port authority to employ, regardless of whether it is directed to the end users, operators or public. The spill over effect refers to any impact that one marketing channel may carry over to another.

<table>
<thead>
<tr>
<th>Channel</th>
<th>Target Stakeholder</th>
<th>Form</th>
<th>The relevance</th>
<th>Impact of social media</th>
<th>Spill over Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advertising</td>
<td>Operators</td>
<td>Online ads, banners</td>
<td>Some relevance</td>
<td>Social media enables online advertising via social media platforms</td>
<td></td>
</tr>
<tr>
<td>Sales promotion</td>
<td>NA</td>
<td>NA</td>
<td>Not applicable</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>Event Marketing</td>
<td>Public/Community</td>
<td>Port Sponsored Events, Port open days</td>
<td>High relevance</td>
<td>Social media can raise awareness for events Social media can document events</td>
<td>Public relations</td>
</tr>
</tbody>
</table>
Public Relations | Public/Community | Community development, News stories/features, Sponsorships, Charities | High relevance | Social media can raise awareness for events | Social media can document events | Personal selling

Direct | Port users/operators | Newsletters, E-mails, Direct Calls | Medium relevance | Social media can raise awareness | Help initial networking |

Interactive | Port users | Company Website | High relevance | Increase web traffic | Enforces all channels

Personal Selling | Port users/ Large port operators | Business trips, Conferences and Trade fares, Port Tours | High relevance | Social media can aid in networking

Word of Mouth | Public/Community Port users | NA | Somewhat relevant | Social media enables word of mouth marketing to be relevant | Personal selling

5. Case Study: The Port of Rotterdam

5.1 Introduction
To validate the hypothesized marketing communications mix strategy the paper will continue with a case study on the Port of Rotterdam Authority. The port of Rotterdam is one of the largest ports in the world in terms of throughout (Top 50 World Container Ports | World Shipping Council, 2015). It is a suitable port of analyses for this paper as it fulfils several of the parameters of this paper. Firstly the port of Rotterdam is a landlord port regarding its ownership structure. Indeed the port is owned 70% by the municipality, or local government of the city of Rotterdam, and 30% by the national government of the Netherlands. It is also a large port in terms of throughput as well as other measurements such as, number of employees and calculated value added, thus it is reasonable to assume that it has a comparatively large budget for marketing communications. The port of Rotterdam is also diverse in its port products. It housing several logistics parks, has on sight storage tanks for fuel, facilitates throughput of cargo via road, rail and barge and holds refineries for chemical products. Therefore it should accurately reflect the challenges mentioned under the characterization of a port authority, regarding the complexity and diversity of marketing the port products. The paper will analyse the marketing communications mix utilized by the port authority to market the
port of Rotterdam brand. The port of Rotterdam is a brand itself, and consists of the port authority and the port operators which work together with one another. The paper will use online resources, such as the official website, and other related publications by the port authority, as well as an interview with members of the port authority, in order to gain insight into such areas as personal and direct marketing efforts that are not visible to the public.

5.2 Method
In order to ascertain what the structure of the marketing mix is like for the port of Rotterdam, the paper first examined all available online material related to the port of Rotterdam. For example, the official website of the port of Rotterdam gave a great overview of its marketing efforts, and in itself is one such channel. From there, other resources were accessible, such as dedicated web pages for specific events the port hosts, for descriptions of its newsletters and more. However some channels of communication, particularly for B2B marketing, such as personal selling, were not found via online resources. Therefore the paper also included 2 interviews, which gave further insight into the marketing mix structure. The first interview was with Ellen Hamelink, who is the director for marketing at the Rotterdam Port Promotion Council. This council is an external council that organizes networking for the port and its operators. The port authority is a member of this external organizations and works closely together with them. The paper interviewed Mrs.Hamelink in regards to the role and functions of the RPPC, and how they work together with the port authority. The paper also interviewed Christa Joan Stoekenbroek, who is the marketing communications advisor at the port of Rotterdam authority. The paper interviewed Mrs.Stoekenbroek in regards to how the port utilizes its different marketing channels, including those that were not visible through online searches. Furthermore the content of the interview revealed also the reason behind the different marketing channels as well as some developments yet to be implemented in certain channels.

5.3 The port of Rotterdam, B2B marketing channels
The marketing channels the port of Rotterdam uses on a B2B basis are more difficult to observe from an external point of view. Therefore the paper gained valuable insight into these activities from the interview with Christa Joan Stoekenbroek (2015). A significant proportion of this case study is based on said interview.

The port of Rotterdam strategic goal in the B2B environment is to maximize cargo flow and related business activity through the port of Rotterdam. There is currently no spare capacity of land, therefore the port authorities focus lies more in maximizing profitability, and as mentioned previously, facilitating and enhancing its operators to carry out their business, rather than marketing the land itself. To do this the port utilizes 3 communication channels.

Firstly the port has 2 newsletters it sends out to its operators monthly and other subscribers regularly.
These are, “The port in action newsletter” and “the port of Rotterdam insider” (Newsletters, 2015). The former newsletter focuses more on reporting events, and developments that have occurred, for example the investment of the firm Kramer in a “semi-automatic empty depot”. The latter focuses more on the sharing of knowledge, ideas, theories and trends such as the article “room for the future” (Thissen, 2015). However both newsletters can be seen as a way for the port authority to communicate with its operating companies as well as a showcase of innovativeness to potential end users. In fact, while the news letters are managed by the port authority the content comes from various sources, including members of operating firms in the port. Thus it embodies the strategic goal of the port working with its operators to operate and market the port.

The second channel the port utilizes in the B2B market is personal selling. The port authority does this in all 3 distinct ways mentioned previously. These are business trips and networking events abroad, conventions and trade fairs to which the port sends representatives and tours of the port where end users are invited to the port and given tours of the port. The port of Rotterdam works closely with its operators to network with current and potential end users. Both the port of Rotterdam, as well as representatives from companies operating in the port will take part in these activities. The port authority of Rotterdam is the one who organizes these events. The port authority and the operating companies then send representatives to market the ports products. One point of interest here is that the port authority does not distinguish between its larger or smaller operators in the activities it uses to network. However larger operators have dedicated personal contacts at the port authority to communicate with, while smaller firms do not have dedicated liaisons at the port authority (Stoekenbroek, 2015).

The port of Rotterdam authority is also a member of the Rotterdam Port Promotion Council hence for the referred to as the RPPC. Ellen Hamelink who is the manager of marketing services at the RPPC was also interviewed to gain insight into the role of the RPPC. Many companies operating within the port are also members of the RPPC, this figure lies at approximately 200 (Hamelink, 2015). The RPPC is basically an external organization that further organizes business trips and events, port tours and takes part in trade fares to connect the port with end users. The fact that the port authority utilizes the RPPC as well as organizes personal selling activities themselves emphasizes the great importance of this communication channel in the industry. The port of Rotterdam also cannot solely rely on the RPPC as not all operators within the port are members of the RPPC, which has a member’s fee.

The third major channel used by the port of Rotterdam authority is that of the interactive channel, namely their official website. The website has recently been updated and designed from the outside in from port operators and client’s perspectives (Stoekenbroek, 2015). The website gives a clear overview of the different products of the port. That is the cargo handling product of various types of cargo, logistics and maritime services and manufacturing products of the port. The website also gives an overview of all the other channels used. There are links to the social and environmental initiative of the port authority. There are links to the events the port hosts, and there are links to all the social
media platforms. Furthermore the mission statement of the port is also on the website. The website as mentioned previously was recently, in the first half of 2015, redesigned to be more users friendly. Once a user has navigated to a dedicated page on the website, for example regarding breakbulk, they are able to receive detailed information in the form of online text and download of other documents related to the subject. In some cases contacts from the port authority are also provided for more personal communication follow up.

However, the RPPC also provides an interactive communication channel, in the form of the “Rotterdam Port Connector”. This is something completely new and not used in any other port. The Rotterdam port connector is a web based application, which allows potential clients of the port to select a port product and write an enquiry regarding that product, into a web browser. The Rotterdam port connector will then pass this enquiry to the relevant parties, which are responsible for the product in question, so that these parties can then get in touch with the potential client. The Rotterdam Port Connector thus simplifies the search process between supply and demand by a great deal.

Advertising is not a major channel for the port of Rotterdam. According to interview conducted, advertising is employed very limitedly in the form of online banners, on a port related website. The only function of this advertising was in fact to promote the newly designed website of the port authority.

5.4 The port of Rotterdam B2C marketing channels

It was hypothesized that a port authority would find it necessary not only to market itself to operators and end users in a b2b environment, but also market itself to the public, on what can be labelled as a B2C market. The port of Rotterdam holds true to this hypothesis. The port of Rotterdam utilizes three distinct channels for communicating and marketing themselves to the public.

The first channel is public relations. The port of Rotterdam, utilizes several forms of public relations. Firstly the port authority is involved in giving back to the community in the form of charitable donations. The port of Rotterdam here refers to the port authority, as well as businesses within the port that are part of the program.

The companies give financial contributions to non-profit organisations. These organisations are active in the fields of culture, welfare, sport and recreation in the immediate vicinity of the Rotterdam port and industrial area (Port of Rotterdam Authority, 2015). This is done through the “DeltaPORT donation fund” The port is also involved with the community on a more cultural level, its sponsors the Rotterdam Philharmonic Orchestra to travel and perform around the world. The port authority is also a sponsor of the Rotterdam Zoo. Although both, sponsoring the Zoo and the Orchestra could also be considered event marketing, the line between the two is somewhat blurred here.

The second channel that is utilized by the port to sell its image to the public, is that of event marketing. The port hosts the Rotterdam North Sea Jazz festival annually. Last year the festival had between 65000 and 70000 visitors (About North Sea Jazz, 2015). This provides great exposure for the port of
Rotterdam brand. The port authority also receives tickets to the festival which it in fact uses for less formal networking events with representative of its operators (Stoekenbroek, 2015). This is particularly important to maintain good relationships with its operators, as sometimes problems can arise. For example, the port of Rotterdam recently developed the Maasvlakte 2 container terminal, but not all its operators were given a plot of land to operate on there. This caused some conflict between the port authority and the terminal operators. Even though this is not related to marketing communications, an event such as this, which affects the relationship between the port and the operators can impact the cooperation between them, which in turn can impact the effectiveness of the ports marketing communications.

The port also has a special committee dedicated to planning and executing the world port days, hosted in the port of Rotterdam annually on the first weekend of September. The world port days provide exposure to the port to the public as well as fun and educational activities take place, such as visits, tours and workshops at the various areas of the port. The fact that there is a special committee solely for planning and executing this event again shows how much emphasis the port authority places on this. Again this event is planned largely by the port authority, but operating companies within the port will contribute to content and activities of this event (Wereld Haven Dagen, 2015).

Lastly, the port of Rotterdam official website is also a channel for marketing to the public. On the website again, are links to the other 2 channels mentioned above. Furthermore there are statements and documents available regarding the ports stance on corporate social responsibility. There are pages dedicated to explaining the sustainability of the port and its environment, as well as pages dedicated to stressing the safety of the port. The website as mentioned previously, also link to social media platforms, where there is further content aimed at the public.

5.5 The port of Rotterdam’s use of social media

As mentioned previously, the port has linked several platforms of social media via its website. What follows is a description of the different platforms, their content and function.

5.5.1 Twitter

The Port of Rotterdam has been active on twitter since 2009. The port authority utilizes Twitter for several functions. There is a twitter in Dutch language. This account is used to communicate with the community, regarding events, developments and policies which impact the port in the more immediate area. There are also links to news articles in Dutch, regarding the port on the website of “Nieuwsblad Transport”. It can be seen more as a tool to supporting public relations. However, there are also tweets that can be seen as promoting the port to operators and end users of the port. For example on August 11th it was tweeted that the port has invested 31 million euros in buoys and pilings. Thus the twitter account also works as a form of direct marketing for investors in the port and end users. (Havenbedrijf R’dam (@HavenRotterdam) | Twitter, 2015).
The port authority also has an English Twitter account. This is aimed more at an international audience, and is there to communicate value to end users on a global level. There are also plans to expand the port authority’s activity on Twitter. The authority is looking to create twitter accounts that are more focused on specific areas of the port. For example one account that focuses on that of off-shore facilities and their development at the port of Rotterdam. The twitter account would be linked to those people within the port authority who are responsible for the corresponding department (Stoekenbroek, 2015).

5.5.2 LinkedIn
LinkedIn is a professional networking tool, and the Port of Rotterdam makes use of it as such. The profile contains general information about the objectives of the port and some of the ports facts and figures such as throughput. LinkedIn can be viewed as a supporting tool for the ports personal selling channel of communication. Through LinkedIn customers to the port of Rotterdam are able to communicate with the relevant individuals within the Port Authority, as well as connect to member of firms operating within the port.

5.5.3 YouTube
The YouTube channel is observed to support several marketing channels and targets different stakeholder groups. For example, there are informational videos showcasing the abilities of the port like the video “ECT to Nuremberg” which advertises the ports ability to throughput cargo to Western Germany, within 48 hours or videos like “Port Tube Pioneering Spirit” which highlights the innovativeness of the port, in utilizing new offshore technologies. These videos can be seen as directly targeting end users. As such the YouTube page can be seen to a form of advertising or a support to the direct marketing channel. The YouTube channel also has videos that are more in the field of public relations, such as the video which shows the CEO of the Port of Rotterdam authority partaking in the “ALS ice bucket challenge”. This gives an indication of the Ports service to the community by raising awareness to a charitable cause.
Several videos are also showing clips of the World Port days hosted by the port of Rotterdam annually, and in that way are promoting and creating interest for them, thus are supporting the channel of event marketing.
Lastly, there are also many videos that simple show the scenic and picturesque qualities of the port, its surroundings and exciting operations. These videos use artistic ability, and music to showcase the beauty of the port. Mrs.Stoekenbroek explained, that these help to showcase the port as a clean and safe environment to work, and counter common misconception of the port being an unclean hazardous environment, and thus advertises the port as an attractive place to work (Stoekenbroek, 2015). The port as an employer of labour is an area not covered in the scope of this paper. However, the videos also help reinforce the point of the port being environmentally friendly and sustainable. Thus it
supports both public relations as well as making the port more attractive to customers who desire environmentally friendly logistic chains.

There are currently over 150 videos on the Port Authorities YouTube channel.

5.5.4 Facebook

Facebook, as reported previously, is by far the largest platform by users, of social media. The Facebook page of the port of Rotterdam basically carries out the function of all the other platforms combined. There are pictures and statements and links to more comprehensive publications, like one would find on the twitter account, as well as videos that are found on the YouTube page. Furthermore Facebook also has the function of networking like that of LinkedIn however it is not as business focused.

6 Results, Conclusion and Reflection

6.1 Results

In this section the results of the case study will briefly be discussed, that is a comparison will be made between the hypothesized marketing mix structure and that which was observed of the port of Rotterdam. Any differences will try to be accounted for.

The structure of the marketing communication mix of the port of Rotterdam is quite accurate to that presented in the table at the end of section 4. As hypothesized, the major channels for B2B marketing were, personal marketing, direct mail and interactive marketing through the official website. However the situation of the port of Rotterdam was that the port authority was not looking to market or sell land in and around the port, as it is already fully utilized. The focus of the Rotterdam port authority was in working with its operators to market the port as a whole and bring value to end users under a single brand name, which is the Port of Rotterdam. Therefore little can be said about how the port would market itself to operators if it was actively looking to sell land.

However, the channel of personal selling still remains the core channel, and personal communications with operating companies can be seen as part of that channel. What was unexpected is the level of cooperation between the port and its operators. Be it for business trips or conferences, members of the port authority are always accompanied by representatives from port operators, to represent their part in the port hub. The fact that the port of Rotterdam Authority does not rely solely on the RPPC for personal marketing and networking, because not all of its operating companies are members of the RPPC, shows the importance the port authority places on representing all of its operating companies equally. The channel of direct marketing was utilized to a higher degree than expected too. The fact that the port of Rotterdam has 2 different newsletters it sends on a monthly basis signifies the
importance of this channel. Like with personal marketing, one major focus of the newsletters was on the communication between the different actors in the port, and synergy between the actors. This could be explained by the fact that the port of Rotterdam’s focus lies on maximizing value to the end users and being competitive that way. It was hypothesized that advertising via online channels could potentially be useful for attracting smaller businesses who may operate more like consumers when it comes to purchasing or investments. However advertising is not used in that way at all. It was only used to promote the new website, in the form on online banners, on a very limited scope.

The hypothesis was also accurate with regards to B2C marketing, or marketing to the general public, by a port authority. The major channels used were event marketing and public relations. One unexpected spill over effect between marketing channels was that between Personal selling and Event marketing, where the events sponsored by the Port of Rotterdam became locations for networking between the port authority and the port operators. Again this emphasizes the need for a positive and co-operative relationship between the port and its operators, even if conflicts can arise. However it is not clear whether there really exists a spill over effect between public relations and personal selling, as it is unclear how appreciative or how aware private investors are regarding the public relations of a port authority.

The official website was already known to support both the B2B and B2C markets of the port. The port of Rotterdam has placed great emphasis on this channel, as is evident by the fact the website was recently updated and redesigned. Indeed it now gives a very neat and clear overview of the different functions of the port, and all its communication channels. What again was not predicted by the theoretical literature is the amount of input from the operating companies, even when it comes to marketing to the public. From the case study it was illustrated that private companies operating within the port don’t just work together with the port authority in regards to attracting end users. They also contribute to event marketing and public initiatives and promoting sustainability.

The port of Rotterdam has made use of several different platforms of social media. As already illustrated in the case study, the different platforms can be seen to support several different communication channels of the port. Furthermore the port of Rotterdam is looking to expand its use of social media. This is in line with the hypothesis that social media is able to affect all channels as well as the trend of social media usage expanding for business use. Lastly, as hypothesized there are no sales promotions that the port uses, at least that is true under the traditional definition of a sales promotion. In the interview with Mrs. Stoekenbroek it was revealed that some form of discounts and bargaining may be present contractually between the port authority and its operators. However this could not be verified.

6.2 Conclusion
In conclusion, to answer the research question, it can be said that the structure of the marketing
communications mix of a port authority in a landlord port, is determined by its 2 distinct strategic goals, on 2 different markets. On the one hand the port authority aims to be competitive, maximize cargo flow through their port as well as turn a profit for further investment through rent of its land and nautical access. To do so it must position itself, and market itself in a competitive way in what is a typical B2B market. However the port authority is very dependent on government policy and public support for license to operate. Therefore the port must market itself in to the community in what reflects a more B2C marketing environment. These 2 strategic goals define the majority of a port authorities marketing mix structure. There is one final factor which adds the marketing mix structure, and that is the need for a port as a whole to coordinate, and communicate within the different areas of the port and among the different port operators. This level of coordination was more than theoretical literature would have predicted, and the port and port authority share a lot of responsibility when it comes to marketing the port to businesses as well as consumers. Sometimes conflicts arise, that fall outside the scope of marketing, but can impact the co-operation between the parties. Therefore communication channels must be personal and frequent, to maintain positive relationships between the port authority and the operators.

A port authorities marketing is very typical when it comes to its business to business communication, in the sense that it uses personal selling as the major channel. The channel of direct mailing and the way it is used by a port authority is somewhat more unique to the port industry. Direct mailing is used mainly in the form of newsletters to communicate with port operators but often other stakeholders can request access. The use of direct mailing reflects the interdependency between the different actors in the port, as the news letters typically include content from various areas of the port. The extensive use of interactive marketing in the form of websites reflects a ports diverse range of products and services, which can also be interdependent on one another. Websites allow for user friendly presentation of these products. The concept of interactive marketing has been taken further still, by the RPPC, in the form of the Rotterdam port connector, essentially carrying out the function of the ports official website even more efficiently, which is matching demand and supply of the port products for end users.

The marketing communication mix of a port authority is also very dependent on public relations and event marketing, both of which are closely related and in some cases overlap. The support from the community and local government is valuable to a port and can determine other factors, such as transport policies, which impact that ports competitiveness in the market. Furthermore the port authority often receives the blame for negative externalities of the port. Therefore port authorities look to be as involved as possible with the community through public relations and events marketing more so than one would expect from businesses in other industries. This is reflected in the communications mix. A port often has several social initiatives and community involvement operations ongoing at once, so again a website is able to give a good overview of the total situation.

In answering the sub question, it can be said that social media has impacted port authorities
communication channels in a big way especially with regards to the public. Social media has enabled
the channel of word of mouth communication to become a relevant channel by providing exposure to
the port and port authority and in that way bringing the port into the lives of the public through
platforms like YouTube and Twitter. It has helped remove negative stigmas regarding ports and it has
helped to promote the other channels of communication like public relations and events marketing. In
business to business, social media has been used to support the typical business to business channels
like personal selling, through platforms such as LinkedIn.
Port authorities continue to innovate and come up with creative solutions to market themselves
especially in the channels of social media and interactive marketing. The Rotterdam port connector is
a prime example of this innovativeness. The port of Rotterdam is an example of a port that is still
expanding its presence on social media, and it is expected based on this paper that other ports will
likely become more active on social media too.

6.3 Reflection, limitations and areas for future research
The paper recognizes that it has several limitations regarding the conclusions drawn. Firstly, the scope
of the paper was indeed very limited. The paper focused only on landlord ports, which were large and
offered multiple port products and goods. It excluded specialised ports handling single types of cargo
as well as ports with different ownership structures. Furthermore accounting for the differences in the
marketing communications mix using only the port of Rotterdam as a reference means there can be no
general statements made regarding the marketing communications mix of ports around the world,
even in the already limited scope of other ports that fit specifically the types of port this paper focused
on.
This paper aimed to identify, explain and justify the structure of the marketing mix of a port authority,
as well as examine the impact of social media marketing, on said structure. The theoretical foundation
of the paper is based on traditional marketing literatures description of the 8 communication channels
of the marketing mix. As the paper developed it became clear that defining and categorizing certain
marketing activities undertaken by port authorities into these 8 distinct categories was not an accurate.
Many marketing activities include elements of multiple channels, and this is even more so the case
when bringing online marketing and social media into the mix. Therefore in reflection it becomes
clear that, traditional marketing literature is only applicable to sea ports to a limited extent. Never the
less the paper serves as a starting point upon which to build further. By justifying certain marketing
communications, and also identifying other marketing communication that work in theory, sea ports
as well as other businesses may be able to look at their own marketing communication from a more
theory driven perspective. This could then be the baseline for setting up studies to measure the cost
effectiveness of the different marketing techniques. This leads to another limitation of the paper.
This limitation is conceptually the question itself. Accounting for why differences in marketing
communications in sea ports exists, purely using logical, theory derived deductive reasoning is not
sufficient to draw conclusions that will impact the economics of seaports. Rather the conclusions are more useful for academic purposes. What is really needed is to assess the effectiveness of the different techniques. In theory advertising via television would not be cost effective for a port authority, but has this been proven with statistics?

Thus an area suggested for future research would be to actually assess the cost effectiveness of the different marketing communications channels. However it is not easy to do this as a lot of private financial data would need to be accessed, therefore it is most likely a research that would be conducted privately by a business and not publicised.

A second research topic for the future could be focus on a different type of port. Perhaps there is a difference between landlord port and fully privately owned ports in terms of their marketing communications? Or the focus could be on relatively smaller ports, which are specialized and have a much smaller budget. Would their marketing communications reflect those typically found in smaller firms of other industries?

The results of this paper should provide a starting point for these topics of future research.
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