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Possible Benefits of Competing Pilotage in Finland

Master of Science Thesis

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CHALMERS UNIVERSITY OF TECHNOLOGY
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SUMMARY

The aim of the research is to find out what kind of benefits and disadvantages would arise if pilotage in Finland would be opened for competition. The purpose is also to find out if competition would strengthen or weaken the safety.

In the research a wide perspective was taken over the subject in order to get a good view of the factors that would be affected by the change. The price difference from a customers' point of view and the need for common rules if pilotage is opened for competition in Finland are examined as well. In order to reach the goal also a comparison to Denmark, where pilotage has been under competition for a number of years, has been made.

The theoretical part of this research is done by familiarizing with texts and researches over competition and monopoly. Also pilotage acts from Finland, Denmark and Sweden have been examined, even though this research is not taking into consideration if private pilotage is legal in Finland or not. The empirical part of this research is made by interviewing persons working within the pilotage segment both in Finland and Denmark.

The interviewees were carefully chosen, including authorities, public pilot operators and privately owned pilot operators. The interviews were analyzed and used as a base for the empirical part. Also new viewpoints consisting of benefits and disadvantages of competition were gathered from the interviews.

In pilotage benefits could be achieved through competition. The service level would probably be the biggest competition factor. Also safety and price could be used as competition factors in the open market of pilotage. The price of pilotage would most probably be decreased through competition and companies buying pilotage services could benefit by being able to buy services tailored especially for their needs.

When implementing a competed market from a monopolistic market new rules must be made for ensuring that it is functioning also in practice. Competition would put pressure on the operators and the market would start to innovate itself.

Keywords: Pilotage, competition, private pilotage, Pilot, service level, monopoly

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1 Introduction

This research handles the very sensitive subject of competition of pilotage. My interest woke up to this subject when I first heard about it in autumn 2007. At this time the issue came into public notice in Finland. Baltic Pilot, a privately owned pilot company in Finland, had already started their pilotage and the arguing about, if private pilotage is legal or not, started. The issue gets a lot of attention in maritime business. It seems that all, not only those who take part in the pilotage business, have their own thoughts about pilotage and the legal aspects. Later on the issue starts to move to more daily matters like the service level and the safety issues. At this point my interest gets fire under the arms. I have just participated in a “Quality Management” course at the “Nordic Master in Maritime Management” program and I am interested to know if pilotage quality could be increased through competition.

The master thesis project started by collecting old newspapers and reading about what had actually happened in the Finnish pilotage sector. A lot is written in the newspapers, but my thought that the articles written are just a scratch on the surface got proof after interviewing experts about this matter. The issue is sensitive because of natural thoughts; competition is good but not when it happens to me and my company. From the newspapers I got the feeling that a lot has been said and lot is still to be said to each other about this issue. About the issue and the case in Finland it will be more described in the background section later on.

This research is actually much about quality, management, economy and pilotage. These all, except for pilotage, are subjects we have been studying during our education at Chalmers. The research’s main subject will though be competition and if competition of pilotage affects the quality of the service. In this master thesis it is gone through pilotage acts and state decrees of Finland, Sweden and Denmark. These countries were carefully chosen by the fact that in Denmark pilotage has been open for open competition since 2006 and in Sweden there is not even a pilotage act. In Sweden pilotage is stated only in a state decree. The look into the law text is obvious, even if this research is not taking in consideration if private pilotage is legal or not, to get a wider perspective and to understand where everything has started. Through these law texts it is noticed that the Finnish pilotage act is a bit confusing. In the law texts of the other countries there is no room for misunderstandings. The confusing law text is the root of the case that is going on in Finland.

The law texts are quite often quoted in this research. This is done by purpose. It is done to minimize the risk of misunderstanding of the law; the law obeys as it is written. All the references used for this work is listed in the end of the thesis, both quoted and not quoted ones.

The thesis starts with an introduction chapter that is consisting of different parts; introduction, background, purpose of the research, limitation of research and method. After this the research is taking a look into the pilotage acts and to both the EU-competition law and the Finnish competition law. About pilotage it will be written twice, a general part and the interviewees' views of pilotage. Because of the fact that the research is about if pilotage could benefit from competition in Finland there is obviously a chapter that is about the market, consisting of both competition and monopoly. The research also has a chapter that is comparing competition and monopoly with each other.

The research is taking into consideration if pilotage should be opened for competition. What the benefits would be and if there are any disadvantages of competition. To get a good perspective of the issue many people have been interviewed. Some of these people wish to be anonymous because of the sensitivity of this subject. I have decided to respect their wish to be anonymous and will therefore in no case give their name or any information that might endanger their anonymous status.

I would like to thank all my interviewees for participating and I hope they have enjoyed the interviews as much as I have done. I also want to thank my supervisors, Margaretha Lützhof and Tor Charles Lund, for helping me making this research possible. I would also like to give a special thanks to my wife Satu Järnefelt for all the support I have gotten during this project. I hope that this research could be as a help in solving this sensitive case. This research could also be as a background for other countries facing the same issue.

1.1 Background

1.1.1 In general

Managing director Matti Aura from Finnports (Satamaliitto) says in a pronouncement on their own home web page that the government in Finland has made initiative to release the price setting of pilotage from the state to Finnpiilot, after this the state would no longer take part in pricing pilotage services. The government says that the meaning is to make the market setting the price for pilotage. At the same time they state that Finnpiilot should have monopoly and that Finnpiilot is not striving for profit. Usually things like this are not walking hand-in-hand. (Matti Aura, pronouncement)

In the law there is not stated whether pilotage is under monopoly or not. The state has an opinion that there is monopoly for the state pilot enterprise Finnpiilot and Baltic Pilot Ltd thinks that the market is open for competition. At the moment Ministry of Transport and Communications is considering if pilotage should be opened or closed for competition. (HS 17.10.2008, p. A4)

Matti Aura writes in his pronouncement that pilotage is a safety service and that the main question is; who takes the responsibility? Pilots have actually no responsibility on board vessels; it is always the captain who takes the responsibility whether there is a pilot onboard or not. In a questionnaire to the investigating group about pilotage, Mr Aura says; for this matter it is not for importance for which company the pilot works for.

1.1.2 Case background

The following information is gotten from news papers and Baltic Pilot's press release. This is added to the research even if this is not actually a case study. This will be given as information to the readers; this background will probably help the readers to pilot through the text.

- Everything started in year 2000 when the Finnish Maritime Administration started an investigation about if the state pilotage should be released from the Finnish Maritime

Administration and a new state enterprise, Finnpiilot, would be introduced. (Baltic Pilot)

- Ministry of Transport and Communications realize the suggestions made by The Finnish Maritime Administration. By changing the pilotage act 1st of January 2003 the state pilotage enterprise, hereinafter called Finnpiilot, is developed. At this stage Finnish Maritime Administration will only stay as a pilot supervisor, all pilot services will be offered by Finnpiilot. At the same time the pilots lose their state authority status. (Baltic Pilot)

In 2007 many things happen in Finnish pilotage history.

- The privately owned Baltic pilot Ltd starts their operations by piloting foreign cargo ships to and from the port of Rauma in Southwest Finland. The company has tens of foreign customers which want to tender the service level of Finnpiilot. (Baltic Pilot)
- On September 5th, 2007 Baltic Pilot is granted permission to continue pilotage on Finnish territorial waters by an e-mail written by Harri Cavén, director at Ministry of Transport and Communications. The Finnish Maritime Administration is not forbidding the pilotage because in their opinion the new pilotage act does not forbid private pilotage nor does the Finnpiilot have monopoly in Finland. (Baltic Pilot)
- Finnish pilot union bothers to the Prosecutor-General about Baltic Pilot and Finnish Maritime Administration. According to the pilot union, Finnish Maritime Administration has been acting wrong when granting permission to Baltic Pilot. (Baltic Pilot)
- On September 7th, 2007 Finnpiilot sends a letter to the shipowners in which they state that they have monopoly of collecting the piloting fees. (Baltic Pilot)
- Baltic Pilot sees the situation differently because of the permission granted by the Ministry of Transport and Communications. Baltic Pilot hires more personnel, orders pilot boats and makes other contracts that are needed for fulfilling pilotage operations. (Baltic Pilot)

- On November 28th the Prosecutor-General makes his decision that the meaning with the new pilotage act was to give monopoly to Finnpiilot. However he states that the monopoly is not stated in the act and that the pilotage act is not stated within the constitutional law which is obligatory when stating about monopolies and limitations of free competition on the open market. (Baltic Pilot)
- After the decision made by the Prosecutor-General, the Ministry of Transport and Communications decides to forbid Baltic Pilots operations. (Baltic Pilot)
- On December 4th, 2007 the competition authorities of Finland declare to the Ministry of Transport and Communications that pilotage could also be offered on the open market, admitting competition. By doing so Finnpilots efficiency and willingness for innovations could be ensured. The competition authorities also state that the Finnish Maritime Administration has been investigating this issue of competing pilotage on the open market and tendering it at different regions already in year 2000. (Baltic Pilot)

In 2008 the case continues.

- Baltic Pilot bothers to EU commission about forbidding private pilotage in Finland. According to Baltic Pilot the Finnish state is breaking against European Union competition laws when considering pilotage as a state monopoly while at the same time Finnpiilot is also operating on the open market by offering maritime consultant services. Baltic Pilot sees the situation so that the Ministry of Transport and Communications strengthened their authority after competitors had entered the market. Baltic Pilot thinks that the Ministry's standpoint is discriminating, and it is fighting against the freedom of practising business and it is not equality. (Hbl 29.12.2007, p. 17).
- According to the competition authorities Baltic Pilots market share was 1,5 % of all the pilotages in Finland when they were stopped. (Baltic Pilot)
- The Ministry of Transport and Communications starts an investigation about if private pilotage shall be legal or not in Finland, Anu Vehviläinen the Minister of Traffic in

Finland thinks this is a hard question. She is wondering how pilotage would be organized at for example lake of Saimaa which is a non profitable pilotage area. (Hbl 5.9.2008, p. 13)

- The EU commission did not investigate the bothering made by Baltic Pilot because the Ministry of Transport and Communications had already started their own investigation about the affair. Later the Ministry gives a new deadline till the end of year 2008 to the investigating group because no report was got till the original deadline. (Baltic Pilot)
- In the Autumn of 2008 Baltic Pilots pilot, Kimmo Lehto who has a pilot license granted by the Finnish Maritime Administration, pilots a ship that is obliged to use pilot. Captain of the ship is Captain Markku Soini. Captain Soini had decided to take a private pilot instead of a state pilot onboard his ship. This was also approved by the ship owner Captain Joakim Håkans. The meaning of this was to get a decision on which points in the state act private pilotage is forbidden. (Baltic Pilot)
- On October 15th, 2008 the District prosecutor Markku Heikonen from Southwest Finland's District decides not to prosecute against Lehto, Soini and Håkans because they had not done any crime. The District Prosecutor did not find any point on which he could be able to prosecute these three persons. Mr.Heikonen thinks that the pilotage act give obligation to Finnpilot to provide pilotage in Finland but the law do not forbid other operators to provide pilotage services in Finland as long they have a pilot license. (Hbl 17.10.2008, Baltic Pilot)
- The Ministry of Transport and Communications considers withdrawing pilot licenses from pilots working for privately owned pilot companies. The ministry states in a letter that Finnpilot is the only legal pilot operator in Finland. In this letter it is also stated that the Finnish Maritime Administration has the right to withdraw pilot licenses from private pilots if they break against the pilotage act. This statement was done after the decision made by the district prosecutor who thought that the law do not forbid private pilot operators. (Hbl 28.10.2008, p.13)

- The province prosecutor takes a decision that the pilotage act does not forbid private pilotage and it neither gives monopoly to Finnpiilot. (Baltic Pilot)

The case still continues and will probably continue also in 2010. (Joakim Håkans)

1.2 Purpose of the research

The purpose of this research is to get an answer to the question if competition of pilotage could have positive effects to the pilotage market. The research will consider if private pilot companies could increase the safety of pilot services in Finland and if competition could increase the service level of pilotage.

The research will be about the competition of pilotage with weight on service level and the safety aspect. The research will also take into consideration other aspects like costs and benefits. The main question is:

- What are the benefits/disadvantages of competing pilotage in Finland?

Other important questions for the research are:

- Is the competition strengthening/weakening the safety of pilotage?
- How will costs differ from a customer's point of view?
- Are common rules needed if pilotage is set on the open market?

In the end of this research there are presented possible improvements for the above mentioned problems and questions. These improvements will hopefully make it easier to solve the piloting business problem in Finland and help other countries to face the problem if it arises in their country too.

1.3 Limitation of research

This research concentrates on what kind of effects competition of piloting could have on the service level in the piloting business in Finland. Also safety aspects will be taken into consideration. The research will not forget the fact that the price is playing a big role in the business and therefore the research is going to get also into economical matters of competition in general.

The research will go through the Finnish pilotage act and the Finnish competition law and Danish and Swedish pilotage acts. This will be done by making the reader more familiar to the theme and by explaining different paragraphs that are related to the problem in question. Anyhow this research will not take into consideration if private pilotage is legal in Finland or not.

The goal of this research is to examine the pilotage in Finland. Even though Danish and Swedish Pilotage are looked into as well, they are just done to get a wider perspective of issue. No comment in how the pilotage should be organized in other countries is made by the researcher.

1.4 Method

In this research a constructive method is used for finding new constructive solutions. The reason to this is that the present condition is considered to be confusing and inefficient and the goal is to find better solutions in the future. To achieve a less confusing condition could be to find a normative solution. The constructive method could be seen as a practical and rational method. (Kaikkonen 1997, p.93)

The goal of this research is to find out how pilotage could be offered in the future so that it is safer, more customer satisfying and cheaper. For non-written material a qualitative method has been used, by doing interviews with experts in piloting issues. Using this method the interviewees have carefully been chosen by the researcher, to get as wide perspective as possible. Different questions to the interviewees have been considered to be the most efficient

way to gather material even if some common questions are asked from almost everyone. As an example could be the question; How would You personally organize the pilotage in Finland?

The written material is collected from books about competition and monopoly, annual reports, law texts, newspapers and journals. There are also some internet sources that are considered safe enough to use. The written sources are mostly collected from the libraries of Helsinki University and Hanken Svenska Handelshögskolan (Hanken School of Economics).

2 Pilotage acts

2.1 Pilotage in the Finnish act

In the Finnish state act there is an own act for the pilotage, the pilotage act 940/2003. This act states the piloting issues in Finland. The purpose of the act is to promote safety of vessels and to prevent environmental damages caused by vessels (Pilotage act 940 §1). The act is supplemented by the government decree 982/2003. In the law book we also find the state act about the state enterprise, Finnipilot, 938/2003. There are in other words quite many paragraphs that state about pilotage in Finland.

Pilotage act; Section 2 – Definitions:

- 1) *“pilotage means activities related to the maneuvering of vessels in which the pilot acts as an advisor to the master of the vessel and as an expert on the local waters and their navigation; and”*

- 2) *“pilot means a person whom the Finnish Maritime Administration has, by granting him a pilot license, authorized to be a pilot in Finnish waters and in the part of the Saimaa Canal leased by Finland.” (Act 940/2003)*

The above mentioned law text states what the main job for a pilot is, and that the pilot has to have a pilot license granted by the Finnish Maritime Administration.

The Finnish Pilotage act states in section 4 – engagement in pilotage activities, that:

- 1) *“The State Pilotage Enterprise must provide pilotage services referred to in this Act in Finnish waters and in the part of the Saimaa Canal leased by Finland on those fairways where under section 5 pilots must be used.”* (Act 940/2003)

The act, section 4 point 1 states that the state pilotage enterprise must provide pilotage to all Finnish harbours and in the leased part of Saimaa Canal. In other words; Finnpiilot, the state pilot enterprise is the only company that is obliged to provide pilotage service in Finland. Finnpiilot has to provide pilot services even to those harbours that are not economically profitable.

This act has been understood in different ways. Finnpiilot has understood this act as if they have monopoly by law to provide pilotage services in Finland. Baltic Pilot, the only privately owned pilot company in Finland, has understood this the way that they have the right to provide pilotage services to Finnish harbours. Baltic Pilot has not considered that this act gives monopoly by law to Finnpiilot. Both pilot companies have or had fully authorised pilots to the ports in question issued by the Finnish Maritime Administration.

2.1.1 Using Pilots and granting pilot licenses

Vessels and vessel combinations must use pilots, when sailing on public fairways or in the leased part of Saimaa Canal, if the overall length exceeds 60 meters or the breadth is over 10 meters. Also if the summer load line draft is more than 4,5 meters use of pilots are compulsory. In the lake of Saimaa and in the Saimaa Canal vessels with a length exceeding 25 meters have to use pilot. Also vessels carrying dangerous liquefied gases or liquefied dangerous substances in bulk have to use pilot. Pilots are also compulsory for vessels carrying irradiated nuclear substances. (Act 940/2003, §5 and Government Decree 982/2003, §1)

For getting a pilot license trainings and tests have to be passed. The test and trainings for getting a pilot license is stated in the government decree 982/2003. The following section is shortened a bit, only taking into account the most relevant points.

Section 3 – “Granting pilot licenses”

(1) *“A pilot license may be granted if the applicant has:*

1) made the following number of training voyages on various types of ship in the fairway to be entered in the pilot license:

a) at least 25 voyages in both directions; or

b) at least five voyages in both directions if the applicant has already been granted a pilot license for another fairway;

2) passed a written examination held by the Finnish Maritime Administration

3) has undergone a practical pilotage assessment by a person authorized by the Finnish Maritime Administration in both directions of the fairway, and has in the assessment proven his knowledge

(2) Training voyages in fairways with low traffic levels may be replaced in part with vessel simulator training.

(3) A written and signed report must be presented on each training voyage and each instance of vessel simulator training.

(4) The applicant must have passed the written examination before undergoing the practical pilotage assessment. The assessment must take place within 12 months of the written examination”. (Decree 982/2003, § 3)

The pilotage act gives some exemptions from using pilots, Pilotage Act section 5, point 4 states following:

“The following vessels are exempt from compulsory pilotage based on the size of the vessel:

- 1) *vessels the master of which holds a Pilotage Exemption Certificate referred to in section 14 and granted by the Finnish Maritime Administration.” (Act 940/2003, § 5)*

In this research this point is the most interesting and that's why this research will take a look of section 14. This is of great interest because the pilotage is already actually under competition because exemptions are granted to masters for specific vessels and fairways. There are lower demands for getting a pilot exemption certificate for a specific ship and fairway than it is to get a pilot license. This can of course be explained with the fact that an exemption is only valid for a vessel that is well known by the holder of the exemption certificate.

In Finland, if holding a pilot exemption certificate you do not have to pay pilot fees either. A captain that holds an exemption like this usually gets a provision to himself of piloting without pilots. The provision is, depending on the charterer, usually some percentage of the pilot fee normally be paid.

“Section 14 – Pilotage Exemption Certificate

(1) Upon application, the Finnish Maritime Administration can grant a Pilotage Exemption Certificate for a specific fairway and vessel to a master of a vessel if he can show that he is familiar with the fairway used by the vessel. A Pilotage Exemption Certificate can also be granted to the vessel's navigating officer meeting the same conditions.

(2) A Pilotage Exemption Certificate may be granted if the applicant:

- 1) *has taken part in the navigation of the vessel subject to the application or of a similar vessel, as a master or a navigating officer, on the fairway to be entered in the pilot license;*
- 2) *has passed a written examination held by the Finnish Maritime Administration;*

3) *has undergone a practical pilotage assessment in both directions of the fairway to be entered in the Pilotage Exemption Certificate, or in the direction mentioned in the application, by a person approved by the Finnish Maritime Administration;*

4) *has an adequate command of Finnish or Swedish.*

(3) The Pilotage Exemption Certificate is granted for a fixed period of no longer than five years and can be renewed on request. The Pilotage Exemption Certificate can be renewed only if its holder shows that he is still familiar with the fairway.

(4) Further provisions on the conditions for granting a Pilotage Exemption Certificate and its content and renewal will be issued by Government decree.”(Act 940/2006, § 14)

To show that the demand for a pilot exemption certificate is lower than for a pilot license this research is showing the government decree 982/2003, § 6:

(1) “A Pilotage Exemption Certificate may only be granted if the applicant:

1) has, as proven by a reliable report based on the vessel log, taken part in the navigation of the vessel covered by the application or a similar vessel that does not substantially differ from the vessel covered by the application in size, technical arrangements or safety management systems, as a master or navigating officer:

a) in at least 5 voyages in the fairway in both directions during the last 12 months, or, when applying for a Pilotage Exemption Certificate for this particular direction, in at least 10 voyages in one direction during the last 12 months for a Cargo Vessel Pilotage Exemption Certificate; and” (Act 982/2003, § 6)

This decree is a little bit shortened, to make it clearer and to only take into account the most important parts.

Comparing section 3 (granting pilot license) and section 6 (granting pilotage exemption certificate), it is well shown that for getting a pilot license it is compulsory to sail 25 times on a fairway, in both directions, but for getting a pilot exemption certificate it is only needed to sail 5 times in both directions.

Baltic Pilot's pilot, Captain Markku Soini lost his pilot license on October 13th, 2008 because the Ministry of Transport and Communications thought that he had been continuously breaking the pilotage act by providing pilotage services from a privately owned company (Hbl 13.11.2008, s. 19). Pilot, Captain Markku Soini had a pilot license granted by the Finnish Maritime Administration for the fairway in question. The Prosecutor from Turku had an opinion that nothing illegal had happened. This opinion by the Prosecutor was supported (authority) by the "office of the Prosecutor-General".

2.1.2 Responsibility and rights during pilotage

No matter what the law says the pilot is important onboard vessels when navigating in shallow waters. Anyhow the pilot is not taking the responsibility of the navigation of the ship from the master. The responsibility is always the masters. "The pilot is responsible for the pilotage" (Act 940/2003). According to the pilotage act the master must provide the pilot with all information that is of importance for the pilotage. The pilot is obliged to give all information and instructions, which is necessary for a safe passage, to the master of the vessel. He shall also supervise the maneuvering and handling of the vessel to ensure the safety of the vessel and the environment. The pilot shall inform the Vessel Traffic Service with all observations that are of significance for the safety of the vessel, environment and persons onboard. (Act 940/2003, § 7, 8)

The pilot has according to the pilotage act § 11 the right to refuse or discontinue the voyage of the vessel if he considers it to be dangerous for the vessel, persons onboard or the environment. In these cases the pilot must immediately inform the master of the vessel about the refusal and notify him why this is happening. (Act 940/2003, § 11)

2.2 Danish Pilotage law

2.2.1 Written law

In Denmark pilotage is under open competition. Competition became possible on December 1st, 2006 when the new pilotage act 567:2006 came into force. Act 567:2006 is applied to pilotage that is performed in Danish territorial waters or, outside Danish territorial waters when the pilotage is performed from a Danish territory or if the pilotage is performed on the basis of a holder of a Danish pilot certificate. (Danish pilotage act 567:2006, section 1)

In Denmark pilotage can only be provided by a person who holds a pilot certificate issued by the Danish Pilotage Authority and pilotage may only be performed to the extent covered by the certificate. Danish Pilotage Authority grants pilot certificates only to well trained and suitable persons. A pilot shall have experience from sailing as master or chief mate and shall be trained both theoretically and practically. (Act 567:2006, s. 11, 12)

The law makes it very clear that private pilot providers are welcome on the market. A pilot provider shall be domiciled in an EU or EEA country and the company shall have arranged an insurance that covers the pilots. The Company shall be registered as a pilot service provider by the Danish Pilot Authority before any operation is started. The state pilot service, Danish Pilotage Service, is anyway obliged to provide pilotage within a defined period of notice to any ship that requires or is obliged to use pilot (Act 567:2006, s. 18-19, 24)

To be exact and to minimize the risk of misunderstanding, the research will quote the Danish Pilotage Act 567:2006, part 9 and 11, following sections:

“Pilotage service providers

Section 18.

Pilotage service providers must be domiciled in an EU/EEA country.

Section 19.

The Danish Pilotage Service is obliged, subject to a defined period of notice, to provide a pilot for any ship that may require one or that is subject to the obligation to use a pilot.

Subsection 2. The region in which the Danish Pilotage Service is obliged to make a pilot available comprises Danish territorial waters and the Danish EEZ, as well as outside these waters in other coastal states' exclusive economic zones in the English Channel, the North Sea, Skagerrak, Kattegat and the Baltic Sea.

Subsection 3. The Danish Minister of Defence defines the periods of notice and more specific rules on how to order a pilot mentioned in subsection 1.

Subsection 4. The Danish Minister of Defence can define maximum rates for each kind of pilotage provided by the Danish Pilotage Service

Subsection 5. The Danish Pilotage Service may enter into partnership agreements with private services to perform the obligation described in subsection 1.” (Danish Act 567/2006, Part 9)

“Registration, inspection, etc.

Section 24

The Danish Pilotage Authority performs inspections of pilotage, pilots and pilotage service providers.

Subsection 2. The Danish Pilotage Authority maintains a register of companies that perform pilotage operations in Denmark.

Subsection 3. Pilotage operations may not be performed until registration has been completed in accordance with subsection 2.

Subsection 4. A company is entitled to be registered as a pilotage service provider if the company

- 1) satisfies the condition described in section 18,*
- 2) has arranged an insurance policy in accordance with the rules defined pursuant to subsection 6, and*
- 3) does not have any significant overdue debt to public authorities, defined as amounts to the order of DKK 50,000 or more, although cf. subsection 5.*

Subsection 5. If the director and all board members of a pilotage service provider operated in the form of a company, etc. do not satisfy the condition described in section 12, subsection 1, no. 9, inclusion in the register maintained by the Danish Pilotage Authority must be refused.

Subsection 6. The Danish Pilotage Authority defines more specific rules for pilotage service providers' operations, including the obligation to arrange insurance cover for pilots, the structure of accounts, internal controls, pilotage assignments ordered or performed, and the obligation to provide ongoing information to the authority, etc., including the method of submission. (Danish Act 567/2006, part 11)

The pilotage service in Denmark is supervised by the not-for-profit Danish Pilotage Authority and this makes it possible to have many different operators on the market. The Authorities have made rules how the pilot and master shall change information about sailing conditions, as well as how the pilot shall be taken into consideration onboard ships.(Act 567:2006, s. 8, Mercator Media Ltd; Port Strategy 1.3.2007)

The Danish Pilotage Service, DanPilot, (state owned pilot company) has many obligations according to the act. They shall among above mentioned things also forward pilot orders addressed to private pilot providers. They shall also be able to transport other companies pilots to and from ships, this is though optional. It is also optional for private pilot providers if they wish to use these services. Both these services are provided against a fee. A pilot who works for the DanPilot is not allowed to work for private pilot providers simultaneously. The employers at the Pilot Authorities are neither allowed to have interest at any pilot service provider. (Act 567:2006, s. 20, 22, 25)

Pilot service providers may be withdrawn from the register if they break against the act about registration. Also if they have been transit piloting they will be withdrawn from the register. Transit pilotage is according to the act, section 13, forbidden to be performed by any other than the state owned DanPilot. The reason for this is according to Frank Gottlieb, Pilotage superintendent at Danish Pilotage Authority, that there always must be pilots available for transit traffic when needed. Also if a pilot service provider has no pilots anymore employed they will be deleted from the register. (Act 567:2006, s. 30, 31)

A pilot is obliged, without payment, to take with him and to train a pilot trainee whether he works for the same company or not. Pilots also have to participate in testing pilot trainees or other pilots that are accompanied the pilot. (Act 567:2006, s. 8)

2.2.2 Discussions about the new act

In March 2007 no one had so far challenged the former state monopolist Danish state pilots association, nowadays named DanPilot. Head of Danish Pilot Authorities, Frank Gottlieb, says that the law was changed to make competition possible; the state wanted to improve the pilotage service level for the shipping lines. Competition should also help bringing down the pilotage fees in Denmark. This may lead to that more ships will use pilot service in the future. (Mercator Media Ltd, Gottlieb, Frank; Port Strategy 1.3.2007)

At the other end Stig Thomsen, head of the Danish Maritime Pilots Association (DMPA) claims the liberalisation of the pilotage act. He says to Port Strategy that;

“We believe future providers will look first at their bottom line performance, relegating safety into second place. This is because the only way pilot companies will be able to compete is on price. Vessel owners will therefore push pilots to do jobs in more and more uncertain ways. However, the DMPA argues that this is a public service and that economics should not be the main driver,” (Mercator Media Ltd Thomsen, Stig; Port Strategy 1.3.2007)

Mr. Thomsen also states that the pilot service must be provided on a certain level of quality. The competition body did not thought quality and price was mutually exclusive. (Mercator Media Ltd; Port Strategy 1.3.2007)

2.3 Swedish Pilotage law

In Sweden pilotage is not regulated in any act, it is only regulated in a pilotage decree 1982:569. Here it is stated the basic frames for pilotage. The Swedish Maritime Administration is entitled to give further and more detailed prescriptions.

The state is entitled, through Swedish Maritime Administration, to keep pilots on the Swedish coast, Lake Mälaren, Lake Vättern and the Trollhättan Canal. The one who wishes to get a pilot for piloting the ship in Swedish territorial waters are only to call a state pilot who is employed by the Swedish Maritime Administration (The Pilotage decree 1982:596, § 1, 2). The decree makes it already in the beginning very clear that the pilotage in Sweden is performed by state pilots, employed by the Swedish Maritime Administration. The Swedish Maritime Administration has monopoly in Sweden so no other than the state is allowed to make pilotage operations. No private pilot companies are allowed. If somebody breaks rules in section 2, about who is allowed to perform pilotage services, he may be imposed a fine (Decree 1982:596, § 11).

The Swedish Maritime Administration is a so called state enterprise in Sweden, this means that the administration need to have as full cost coverage as possible. Swedish Maritime Administration is getting their cost covered by different charges. Actually this means that the different sectors in the Swedish Maritime Administration shall cover their own costs. So the pilotage service shall cover their costs in the company by pilotage fees. Because pilotage is under monopoly in Sweden, the Swedish Maritime Administration gets only competition in pilotage from pilot exemption holders. (Swedish MaritimeAdministration / Lotsning)

3 Pilotage in general

Pilotage is guiding oneself to a destination. Pilots are usually used when guiding vessels or aircrafts to a port or to an airport. Pilots, who perform pilotage, are familiar with the environment and they shall know about special effects like wind and current at the piloting area.

3.1 What is maritime pilotage?

In maritime industry pilots guide vessels to and from ports but also in narrow or shallow waters like canals, for example Suez, Panama and Kiel Canal. There are also so called deep sea pilots. Deep sea pilots are used for example in the Baltic Sea. Baltic Sea is actually not narrow or shallow water but; it is highly trafficked and it is a Particularly Sensitive Sea Area (PSSA) which needs special protection according to International Maritime Organisation, IMO. Guidelines for designating PSSA:s are contained in the resolution A.982(24) *Revised guidelines for the identification and designation of particularly Sensitive Sea Areas (PSSAs)*. These should be some reasons for big tankers and cruise vessels to use pilots when navigating in the Baltic Sea area. Vessels with deep draft could even probably count the Baltic Sea as shallow waters. Baltic Sea piloting is competed on the open market. The Baltic Sea as a whole was listed on the PSSA list in 2005.

Maritime pilotage is a service, a safety service. A ship can be safely manoeuvred to a port by a pilot license or a pilot certificate holder. Pilots are not actually responsible for the ship, they are advisors. By this is meant that the captain is always responsible for the ships safety. Even if the pilot should advice the captain to navigate in a special manner the captain can refuse to do so if he considers it to be dangerous for him, his crew, his ship, the cargo or the environment. The communication between the pilot and the master of the vessel is of great importance for the safety, not only for the ship and its' crew but also for the environment. The master knows the ship and its manoeuvrability and the pilot knows the waters and the port. If these two work well together then the ship should be in good hands.

3.2 History of Pilotage

Pilotage is a very old job. It is even mentioned in the Bibel, the Old Testament. Marco Polo used pilots on his voyage to the Orient in 13th century. There were pilots in Finland and Sweden already in the 16th century, it is a very old job and piloting, at least used to be, a position of trust (SOU 2007:106, p. 49).

In a negotiation of a trade agreement between Sweden and Holland in 1525-1527, the Dutch wanted it to be stated that their ships must be provided with pilots in the Swedish archipelago. In the 16th century King Gustav Vasa released the ones from paying taxes, who were piloting the Royal Swedish ships. These pilots were obliged to teach new pilots for the area they were piloting, to ensure the availability of pilots. (Sou 2007:106, p. 50)

In 1641 Queen Kristina, Queen of Sweden, stated that ships using pilots on their way to Sweden and Finland (Finland was at this time a part of the Swedish empire), must compensate the job done by a payment. One year later it even came into force a rate of 6 silver coins for each piloted nautical mile. In the new maritime code of 1667 it was first time stated about the duty to use pilots. Four years later it became prohibited for other than pilots to pilot ships in Sweden. (Sou 2007:106, p. 52)

At the 18th century the rules of pilotage were changed a lot and often. Anyway in 1738 rules came out that all ships with a depth of at least 5 feet are obliged to use and pay for a pilot in Swedish and Finnish waters. One year later in a Royal letter all national trading ships were released from this obligation. 1745 it became compulsory again for these ships to use pilots in the Swedish and Finnish waters and in 1748 they were again released from this obligation. In 1781 all ships, whether sailing international or national, were again obliged to use pilots and to pay a pilot fee. In 1782 the national flagged vessels sailing national trade were again released from using pilots. Except national ships trading national, having a depth of five feet or more which should pay a quarter of the pilotage fee. (Sou 2007:106, p. 53)

In 1809 Finland became a part of the Russian Tsarist Empire and the pilotage was also expanded to cover the inland waterways. Later on when Finland became an independent country in 1917 the Finnish Maritime Administration was introduced. At that time the Finnish Maritime Administration had a department covering the pilotage and lighthouses. This

department got to take care of the majority of the old Pilot Administrations duties. In 2004 the State Pilot Enterprise, Finnpilot, was separated to an independent state enterprise. About this subject more is written in other parts of the master's thesis. (Annual Report, Finnpilot, p. Vision, strategy, etc.)

3.3 Pilotage in numbers in Finland

In year 2007 there were 36 466 pilotages in Finland consisting of 722 878 nautical miles. Finnpilot had a turnover of 40,8 million Euros. This was 1,2 millions more than in 2006 when the turnover was 39,6 million Euros. Finnpilot also has an obligation to serve non-profitable areas. Lake Saimaa which is a SGEI-area has lower pilotage fees than rest of the country; this loss is covered by state aids to Finnpilot. In 2007 this aid was 4,0 millions and therefore Finnpilot had a profitable year with a profit of 4,3 million Euros. This was 0,6 millions more than in year 2006. Finnpilot made investments of 3,3 millions in 2007, mostly in new pilot boats. (Annual Report, Finnpilot, p. 2, 3, 15, 16)

In 2007 the pilotages decreased by 0,9 % from 2006. Anyway the total piloted nautical miles increased by 2,5 %. This can be explained by that the ships size increased while at the same time the ports visited changed to destinations with a longer pilotage distance. The biggest increase of pilotages were made at Kotka where the container and wood market increased, also the transit traffic to Russia will explain this increase of pilotages. Also the cruise vessels pilotages increased in 2007, especially at Port of Helsinki. Lake Saimaa, the only SGEI-area had a decreasing demand for pilotage. (Annual Report, Finnpilot, p. 17)

According to the competition authorities Satamaliitto (Finnports) has done a comparison between different fees and costs for a ship that arrives to a Finnish port. In this comparison it is stated that the port gets an average revenue of 7864 € / ship and that the custom takes an average of 2200 € / ship as fairway dues etc. The ship dues / ship visits are about 1279 €. At the same time it must be mentioned that in 2007 when 36 466 pilotage were done in Finland the average pilotage revenue / pilotage was 1121 €. (Reimavuo, Seppo)

Finnpilot had in the end of 2007 404 persons employed. Of these persons, 25 were at the administrative department and 379 were working at the operative department. In 2008 there were 190 pilots working for Finnpiilot (LVM130:00/2007). (Annual Report, Finnpiilot, p. 18)

It should be noticed that state enterprises do not pay any taxes in Finland and therefore Finnpiilots profit is the same after taxes. The total profit made was 4 313 460,81 euros. This is including the state aid from Lake Saimaa traffic. Of Finnpiilots profit 2,2 millions were moved to the States account as a win (Annual Report, Finnpiilot, p. 32).

Finnpiilot has one call centre, situated in Helsinki, from which every ship arriving a Finnish port, that want or is obliged to use a pilot, should order their pilot. The pilot order can be made by telephone, internet, fax or e-mail. All the ports, also the most Northern ones are taken care from here. At the rush hours a controlled chaos may exist at the call centre, especially if the weather conditions are bad. (Annual Report, Finnpiilot, p.7)

The Finnish state pilotage is divided into seven different pilotage sectors; Kotka, Helsinki, Rauma, Sea of Archipelago, the Quark, Bay of Bothnia and Lake Saimaa. There were 13 pilot stations and a needful number of sub-stations. These areas, pilot stations and sub-stations will be shown in appendix 1 and 2. (LVM130:00/2007, p. 16)

4 EU and state competition laws

The chapter is consisting of two different parts. The first part takes a look into the EU-law. The Finnish state act about competition, the competition act 480/1992, is especially based on EU-treaty articles 81 and 82. Also Denmark and Sweden have based their competition acts on these articles. The other part is taking a short look into the Finnish competition act.

The EU-commission stated in December 2007 that state enterprises like Finnpiilot should not exist because they have a special status differing from normal companies. In January 2008 the ministry committee started to investigate what should be done to state enterprises and decided at least not at present time to establish new state enterprises. (Annual Report, Finnpiilot, p. 40)

4.1 EU-law

As mentioned earlier the Finnish competition act is based on EU-treaty articles 81 and 82. The EU-treaty has actually 9 articles about competition. In article 81 it is stated that it is not allowed to make cartels, make associations and co-ordinated affairs that may hindrance free competition. The markets are neither allowed to be shared between competitors. Companies can any though make these above mentioned things legally if they can prove that it is for the best of the market or if it is improving the technical innovation or improving the distribution of the product. This in its' case demands that also the consumers must be a winning part of the whole. According to article 82 it is not allowed to limit production, markets and technical improvements for the disadvantage of the consumers.

Article 86 is the first article that is actually speaking about SGEI. SGEI is a special agreement and is an abbreviation from "Service of General Economic Interest". In article 86 point 2 it is stated that companies who are obliged to offer services on SGEI-areas are submitted to the articles in the EU-treaty especially the articles comprising competition, at least so that the rules are not a hindrance for fulfilling a task of SGEI nature. The development of the trade shall not be influenced in a matter that is fighting against the interest of EU.

At this point it should be mentioned that pilotage in Finland is not a Service of General Economic Interest, except Lake Saimaa pilotage area. Lake Saimaa pilotage is considered as a SGEI area and Finnpiilot is obliged to provide pilotage to and from the lake. (Seppo Reimavuo, Finnish Competition Authority)

Lake Saimaa has a pilotage fee that is lower than seaport pilotage fees. Finnpiilot gets a state aid that covers this loss. The state aid is possible because it is a SGEI-service (Reimavuo). Otherwise Finnpiilot is fully operating on "full cost coverage" principle. Because of the support for the Lake Saimaa pilotage Finnpiilot made a profit of about 4,3 million Euros (Satamaliitto, Finnports). (Ministry of Traffic and Telecommunications)

4.2 SGEI

Service of General Economic Interest are defined in EU competition law as economic activities that the authorities consider to be of importance to citizens and would not be supplied without any public support. SGEI is very close to “Universal Service Obligation” (USO). SGEI should not anyway lead to market distortions. EU’s mission is to ensure competition on the market. EU tries to push for open tenders whenever it is possible even if there sometimes may arise limitations for this. It must be noted that SGEI state aids are provided only to firms or parts of a firm that is providing services or products by loss. This state aid is provided to ensure these services to every citizen and to make the area in question more compatible, than it would be without this aid. (European commission > competition > state aid, p. 1 & 2)

In most of the cases where SGEI exists there used to be state monopolies. On this monopolies USO where usually imposed and losses from one service area were covered by more profitable areas, by having so called universal pricing. These monopolists where usually state owned enterprises without striving for efficiency. When the markets where opened and privatization started for real this kind of universal pricing where not anymore possible. Therefore EU has made state aids for SGEI (Former areas provided by USO) areas. SGEI areas are freely set by the independent state. This state aid is given to the one who serves the SGEI area. (European commission > competition > state aid, p. 2)

SGEI aids are, as said before, given to companies that offer services on, usually, competed markets to cover their loss from non-profitable areas. EU competition law should guarantee that no distortions of the market exist because of SGEI. Ensuring competition on the market is a very important thing of EU competition policy in the case of SGEI. The goal for state aid policy towards SGEI is to ensure competition of the market. SGEI areas should according to EU be competed on the market by open tendering (European commission>competition>state aid, p. 2, 5). Finland has set pilotage at Lake Saimaa to be a SGEI area but the other areas of pilotage are considered to be profitable enough to manage without state aids.

4.3 What is limited competition?

Free competition means that no hindrance, like laws or regulations, exists for competition. If a law or regulation states that only one specific service provider is allowed on the market then monopoly exist and the market can be considered closed. A company which have monopoly status have not always got it by having an extraordinary good product. They may have the monopoly by law. This means that there may be even better service providers if the market would be open for different service providers. (Bergström and Erixon, p. 39)

In reality a market cannot be exposed for perfect competition, there is always some market imperfections which makes the market forces are not able to lead to a socio economically best result. These market barriers may be created by the companies themselves which are operating on the market or by laws regulated by the authorities. (SOU 1995:105, p. 101-102)

4.4 Finnish hindrances of competition

The Finnish act of competition hindrances 480/1992 §1 states that this law is made to protect competition on the market against harmful competition hindrances. In the applying of this law it shall be taken into consideration the freedom to practice the industry. If a competition limitation can affect the trade between European Union states then articles 81 and 82 in EU-treaty should be applied. (Act 480/1992, § 1, 1a)

5 Market

The sellers strive to maximize their profits while the buyers try to get the highest value out of the service. In a market it shall be possible to leave a business relationship and create relationships with new customers. This is one way of making the sellers to try harder to satisfy the customers; a functioning market creates value for the service. A market that creates profit for the sellers will attract new operators to enter the market; this again will increase the pressure to reduce the price and to make rationalization of the service. (Ljung, Jörgen, Nilsson, Per, Olsson, Ulf E., 1994, p. 36)

An entrepreneur tries to solve problems that have arisen for the customers. The entrepreneur needs to make it clear for the customer that there are solutions and that they can provide the solutions to the customer if needed. We could say that an entrepreneur is in this case one who creates unbalances on the market by creating solutions we have never seen before. The entrepreneur is in this case an inventor. (Ljung etc, 1994, p.42)

The market is changing all the time; the future will be different tomorrow. The world is changing and one may say that the existent of change is constant but the change itself is not constant. Actually the rate of change is accelerating. Therefore we always have to look to the future; how will the world be tomorrow and the day after tomorrow. (Mattson, Stig-Arne 2000, p.13)

Peter Drucker, an American management guru, defined the purpose of the business as creation and retention of satisfied customers. This was done more than forty years ago. A good service level and customer satisfaction is the only reasons to be considered as an acceptable operator on the market. How can then customer satisfaction be achieved? It actually depends on how the company relates itself to its customers with reference to what customers need and want. From the customer perspective there are three levels of operating a relationship; self-centered level, customer satisfaction level and customer delight level. (Mattson 2000, p.13-14)

The self-centered level means that the operator makes their strategy from their own expectations of what the customers need. The customer satisfaction level is more customers based. In this level the customers' wants and expectations constitute the basis for the relationship. Measurements of the customers' needs shall in customer satisfaction level be carried out on regular basis. The customer delight level is the most advanced level. Here the relationship is represented by customers own wants and needs but the service provider tries to provide even more than what is expected. In this level the service provider tries to contribute to the customers' success with their own operations. (Mattson 2000, p. 14)

Acting on a self-centered level is not only acting on lack of information, it is also an issue of attitudes and awareness of customers' satisfaction. Statements like "We do not need to ask the customers anymore, we have done this so many years so we already know what they want and need" are very representative for this level. (Mattson 2000)

5.1 Monopoly

Monopoly is a situation where no competition exists. The monopoly may have been built up by law or by the fact that one provider has been more successful than others. Monopoly may also have arisen by illegal marketing like predatory pricing. Predatory pricing will be more described later in this research under competition. There are also situations where natural monopoly exists. In these cases competition may be hard to defend but it is not impossible.

The company could be thought to strive to be as productive as possible as long as the politics of a profit creating monopoly exist. If the monopoly is not striving for profit then it may be possible that there will be lack in the effective behavior. If, on the other hand, the monopoly is opened for open competition and new service providers are entering the market then, the economy may lose the benefits of economy of scale. (Olson, Hans (Eklund, Klas) 1991, p.12-13)

Public production and monopoly can be defended by following

- To prevent monopoly pricing in strong economy of scale situations
- The service is a collective utility (Olson, Hans (Eklund, Klas) 1991, p.15)

To defend public monopoly it is said that a private company is not capable of providing a service because of the service character. The monopoly is defended because of the risk that the market will fail. This may in some cases be right but usually failures of the market do rarely exist. Privately owned companies are usually more successful than monopoly defender think. (Bergström, Fredrik and Erixon, Fredrik, 2001, p.44)

From a social economic perspective monopoly by law may be costly. One cost is coming from the pressure-activity that is put down on the process for keeping monopoly. The ones who pursue after monopoly are in some cases ready to put the same amount of money on the pressure-activity as the loss would be by opening the market for competitors. From a social-economic perspective this is not preferable. (Bergström and Erixon, 2001, p.40)

Monopolies may exist for different reasons and they may also be natural monopolies. But they may also have grown up because of predatory pricing or formation of cartels by several

firms. These kinds of monopolies are based on behavioural abuses and they are so force not natural monopolies. (Sharkey, William W, 1982, p. 54)

A natural monopoly may exist even if the market is less than ideal. Some natural monopolies are restricted to enter by other operators. To be a fully natural monopoly it must be most efficient to produce a service or a product by a single firm even after the monopoly restrictions are removed and other companies are allowed to enter the market. (Sharkey, 1982, p. 55)

5.2 Oligopoly

Oligopoly is an imperfect competition. In cases where economy of scale and economy of scope are of great importance usually natural monopoly or oligopoly exists. Oligopoly is a state where only a few competitors are operating on the market. An oligopoly may have the same character as a monopoly. In oligopoly markets, companies may also start to co-operate to get better profit. (Olsson, Hans (Eklund, Klas), 1991, p. 13)

Also on markets which are facing a strong competition and where many operators may have the same character may lead to situations were companies start to co-operate. Typical examples of this kind of unions are seen in the airline traffic. Also in liner traffic, unions or cartels are very common (Stopford, Martin 1997, p. 348-351).

Market power decreases with the number of firms in the business area; this may lead to that one may think that the larger number of firms on the market, the greater will the benefit also be. This is not always the case because of the fixed costs. Of course a higher number of operators on the market increase the consumer surplus and the allocative efficiency; because competition decreases the prices. On the other hand again fixed costs also get doubled; this represents a loss of productive efficiency. This trade-off between productive and allocative efficiency makes it useless to maximise the number of firms on a specific market. (Motta, Massimo 2004, p. 51)

5.3 Competition

Competition is not easy to define; in this work competition is defined as follows: The policies and laws are set in a way that the competition in the marketplace is not restricted in such a way that is detrimental to the society. The utility loss could be described as detrimental to the society. (Motta 2004, p.30)

Why is then competition good for the market and the society? The reason why competition would be preferable would be that it is not known which way is the best to provide services. Also some consumers may have different needs. Competition makes it possible to serve all consumers in the way they feel most comfortable. So, competition actually makes it possible to satisfy a higher number of consumers. (Bergström and Erixon, 2001, p. 102)

By competition it is meant that there are two or more companies providing a service or a product that is similar enough for the consumers, who are able to choose the service provider freely. These providers are free to choose the quality and price of the service or product. There are no legal hindrances for competition and all new service providers are free to enter the market. All companies are also free to leave the market if wanted. Competition may therefore result in a situation where there only is one provider left. This may be a result of very good services by one company or equally bad service by the other ones. (Bergström and Erixon, 2001, p. 101)

Competition does not always have to be straight in the same business. For example even if the railway companies have monopoly status, they are anyway competing on the market. They are not though competing against other railway operators; their competitors come from another segment like bus transports and taxis. Even the museums are competing with other segments, only to mention some examples; theatres and zoo could be characterized like a competitor for the museums. (SOU 2007:117, p. 24)

Characteristics of a competed market are that the customer shall have the chance to choose his product or service from more than one option. Off course these services shall be as homogenous as possible. The geographic should also be taken into consideration. A service must be served at the same location from all providers otherwise they cannot be considered as competitors. As an example it could be mentioned that a hotel in Helsinki is not competing

with a hotel in Singapore, but it is competing with a hostel located in Espoo near Helsinki. There are three things that characterise the competition in the service segment; services should be as homogenous as possible, they should be provided at the same area and there must be more than one provider for the service to fulfil the characteristics of competition. Usually public services that are self-supporting by fees are operating on the open market competing with the private sector; anyhow this is not always the situation. (SOU 2007:117, p. 25-26)

Finland stopped the common regulation of prizes in 1988. At that time the competition law's goal was to ensure competition because competition was seen as a better alternative to organizing services. As an argument for this was stated that competition would ensure consumers surplus, the states and also the companies own advantages by keeping their products or services as desired as possible for the consumers. Competition was also seen as a base for striving for innovations and improvements of their own services or products so that companies could be better than their competitors. (LVM130:00/2007)

5.3.1 Predatory pricing

Predatory pricing is when an operator is lowering the prices to compete other operators out from the market. The prices may even be put under the marginal costs for a while. Predatory pricing is illegal in EU. The idea with predatory pricing is that the loss with lowering the prices will be less than the income after the monopoly status the company achieves with this performance. The prices will usually be increased soon after when the competitors have fallen out from the market. (SOU 2007:117, p. 39)

5.4 Public and private ownership

“The impression is that efficiency does not in general depend on whether a firm is public or private.” (Willner 1994, p.1)

In democracy, the citizens' value should be reflected in state owned or municipal enterprises. For example, a public enterprise should create value for the society but it might also be required to maximize the total surplus in the industry. The common believe that the labor unions are stronger in public firms is not certain. One of the reasons in Britain, while privatization was done, was to reduce the public ownership and the union power. Anyway it is far from sure that labor unions are stronger under public ownership. (Willner 1994, p.5)

A privately owned company is considered to be better than a state owned enterprise because they strive for better results and for more customers. Already or even only the possibility of bankruptcy is enforcing the directors to making results. All the available means could be used to make the company grow. One good thing is that the shareholders are controlling the situation all the time; this ensures that the owners have better control of the directors than in public enterprises. These benefits are best shown on a competed market; there exists a risk though that the directors will make decisions that are more profitable for them than for the company or the society. (Lehto, 1997, p. 16)

A public service provider may have monopoly. Public services are usually paid by taxes and they are not striving for profits like the private sector. In the public sector the community is in the centre of interest while the private sector serves the customer and therefore has the point of view that the customer is in the centre of their operation. (SOU 2007:117, p.23)

Directors in public state owned enterprises can be given a stricter liability of the business; in this liability also competition could be added. When, in Finland and Sweden the public services were moved from the administrations to state owned enterprises, this above mentioned amendments were made except for the competition in some segments, like pilotage. What happens, in a situation where the directors have to take more liability of the business and the companies are forced to be self-supported, is that the companies (in this case state owned enterprises) are starting to act more like privately owned companies and is so for striving for profit. This is because the directors are evaluated by the result and in this case it means that public and privately owned companies are acting almost in the same manner. (Lehto, 1997, p.18)

Usually it could be thought that having a powerful public service with a lot of economical support monopoly status could be defended. The more self-supporting the public service is,

for example with some kind of fees, the more it is also acting like a normal company on the open market even if it would not be operating on the open market. (SOU 2007:117, p. 24)

6 Competition versus monopoly

6.1 Influence of competition

In a competitive market the sellers try to adjust the service so that it meets the customers' needs. With adjustable services the seller can charge a higher price. Competition usually decreases sellers' costs; these two things together will lead to a greater profit, at least during the time it takes for the competitors to adjust to the market with similar solutions. (Ljung etc, 1994, p.37)

Some additional services could be offered together with pilotage services, so called tailor made services made for the customers. It is important to remember that the service quality must be improved all the time because customer loyalty cannot be taken for granted (Mattson 2000, p.9).

The benefits that come from competition are usually bigger than the disadvantages. A situation where natural monopoly exists is an exception. Competition improves both the productivity and the effectiveness. The productivity is improved for two reasons;

- It makes the company, and especially the directors of the company, to strive more for the result than in situation where no competition exists.
- Secondly the situation of competition will not forgive companies that are not improving themselves. (Lehto, Eero, 1997, p.12)

Competition pressure is growing when a new or an old entrepreneur takes measures to increase their market shares or market space. When a company is meeting this kind of pressure they have to decide; do they stay on the market or do they leave the market. In cases where the market is a second business for the company they can decide to leave the market

and to focus on their core business. If the entrepreneur chooses to stay on the market and to fight for their market shares then they have to fit in the new situation. The new situation may lead to agreements between entrepreneurs or predatory pricing. Also real, honest, competition may grow and in the best scenario we will see the market grow to meet the consumer's needs, more because of different niches and tailor made services. (Granberg, Georg, 1995, p. 28-29)

Pilotage is a safety service there is no question about that. Also towing and ambulance transport are safety services, these two are both competed on the market, writes Captain Joakim Håkans, Managing Director of Baltic Pilot, in a column in Turun Sanomat on November 15th, 2008. In the same column he writes that through increased competition in towing business the service has changed to be more efficient. (TS 15.11.2008)

It is anyway good to remember that increased competition does not always ensure the efficiency of the service. In situations where there already exists a lot of competition more competition may not increase the efficiency, it may even reduce the efficiency. Anyway a monopolistic market will be more efficient in all circumstances, except for natural monopoly, when it is opened for competition. (Motta 2004, p. 47-48)

Releasing the monopoly regulations and opening the market for competition may lead to a situation where we have very energetic and progressive areas, or even only ports which are progressive and energetic, and then areas or ports which will sooner or later starve in shortage of customers (Maliranta, Mika, Ylä-Anttila, Pekka, p.189).

In Finland the monopoly of Finnpilot has been defended by the concern that pilotage will only exist at high profit areas after competition. Pilotage shall be available to all ports in Finland.

In pilotage the customers are the ship operators and they have the power of keeping the prices at an accepted level. It is wrong to think that the prices would be rising if the markets will be opened for competition. Also the fear of having lack in service providers in some ports is not defensible. To ports where there is regular traffic the problem of lack of service providers will in no condition exist. In ports with less traffic the risk of lack of service is more obvious. Of course the price for these pilotages may be increased to a higher level, it is anyway good to remember that most of these ports are privately owned by big industrial companies. (Matti Aura, Answers to questionnaires)

In the Darwinian selection, where competition exists, many different projects, technologies and products are available. In such a case only the best will survive and other will disappear. On an open market it is good to remember that different customers have different needs and this allows many companies to work with similar services on the same market. (Motta 2004, p.50)

A monopolistic market that is released to the open market requires common competition rules. These rules are to maintain competition and to protect customers. Rules are important; they take care of all parts which are operating on the market. Other things like, coordination and co-operation are also important things on the market. These things are not usually granted by rules; they have to be created by the companies themselves. (Ljung etc, 1994, p.38-39, 43)

By making common rules competition could be involved in almost every business. For example in pilotage; different sectors with profitable and less profitable pilot stations together, could be tendered for the service providers. The benefits should though be compared to the costs of this system. By competition costs and prices can be reduced. The kick for competition is that the legal aspects for competition are approved by the state authorities. If common rules are made then they should be made by the authorities, otherwise the rules could be thought as cartels. Rules stating the fees are usually done in sectors with only little competition. The rules also help new competitors to enter the market (Lehto, 1997, p. 14).

The prices are the ones that dominate the competition together with the quality of the product or service on the market. The consumers are the ones who decide what should be provided, what the quality of the service should be and what is the right price. A service provider must meet the requirements of the consumers, because their competitors do so, otherwise they have the risk of making bankruptcy. (Bergström and Erixon, 2001, p.28)

In pilotage, quality is often thought to be a composition of safety and service level. If a pilot service provider can provide safer and better service to meet the customer's needs than their competitors, they will probably win market shares. A service meeting customer's criteria may be priced higher than a basic service and if the provider succeeds in creating the needed service, he gets a better profit. If no competition exists at all, the pilot service provider doesn't need to offer more than the basic service – which is now regulated in the Finnish Pilotage Act and in the Pilotage Decree. The minimum safety level is controlled by the Maritime

Administration and can therefore not be reduced. The safety level could though be increased and that way used as a mean of competition on an open market.

In a market economy everyone specializes in what they are good in and then try to change this service to money. A company usually strives to get greater market shares by providing unique services at a competitive price. This is essential in market economy because one with a low quality level may lose market shares. (Bergström and Erixon, 2001, p.28, 31-32)

For a perfect competition there is a need for several service providers and lot of customers which are not only aware of the service and the quality but also aware of the price. As a consequence of this the service provider has an opportunity to increase the quality and to get greater revenue. This in other words means that if one increases the price without touching the service level he may risk losing market shares. (Bergström and Erixon, 2001, p. 24)

Also in this research like in many others (Motta 2004, SOU 117:2000 and Granberg 1995) it is shown that competition creates advantages for the market and that monopoly usually makes the companies more inefficient. Monopoly defenders should remember that a natural monopoly should be functioning on the open market to meet pressure of competitors who may enter the market.

6.2 Influence of monopoly

A monopolist is able to charge higher prices for a service than is optimal for a society; this is leading to a welfare loss called allocative inefficiency. A firm operating under monopoly may also have higher costs in producing a service than it would have if working under competition; this is called productive inefficiency. It does not seem to be reasonable that a company facing no competition should make effort to innovate or improve its services. Also the technology used may not be the best one, because it does not need to be. Massimo Motta (2004) defines, in “competition policy”, two reasons for productive inefficiency caused by monopoly:

- Managers have less incentive to make innovations.

- The Darwinian selection when competition exists, the efficient company will survive and the other ones will be eaten up (Motta 2004, p. 45-47). At monopolistic markets this selection does not exist. In monopoly situations an inefficient service provider will exist as likely as an efficient one.

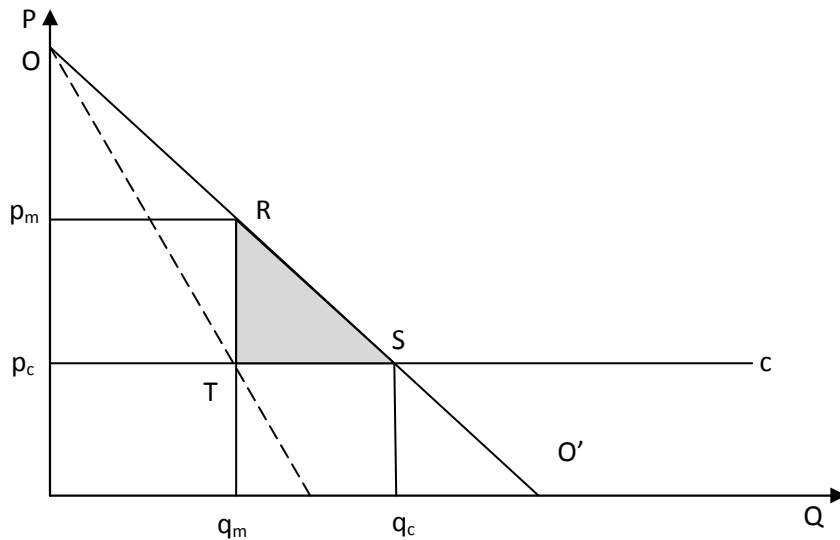


Figure. Welfare loss created by monopoly (Motta, 2004)

If we assume a linear market demand OO' and a constant marginal cost described by the line $p_c c$. The P axis is the price and the Q axis is the quantity. In the most competitive case the price (p_c) equals the cost (c) and the quantity sold is (q_c). This is a perfect competition situation, a so called “pareto-optimum at equilibrium” (Lumsden, Kent 2007, s. 59). In this case no one can increase their benefit without decreasing it for another one (Lumsden 2007). In a pareto-optimum state the price is always equal to the marginal cost (Lumsden 2007). Consider then the case that a company has monopoly and that company is charging a monopoly price (p_m), the output would then be put at a new quantity (q_m). The max utility is the sum of the consumer surplus and the producer surplus. In a pareto-optimum case the max utility is given as a triangle made by Op_cS . When the company has monopoly and is charging a monopoly price (p_m) the utility will be defined by the area Op_cTR , here the consumer surplus will be the area Op_mR and the producer surplus is the square $p_m p_c TR$, by this we can make a notice that the utility loss created by monopoly is the triangle TSR . This is the deadweight loss for the economy in question. (Motta 2004, p.42-43)

Of course a state monopoly by law could have a low price for the service. Like a price as near average cost as possible, but in cases like this the importance of decreasing the costs would

not be of great importance. As shown earlier and also later in this research, monopoly does not innovate or improve efficiency and therefore the costs will not be decreased while the service quality would be increased. In a competitive situation companies are trying to offer as good and ordinary service as possible, this means that improvements will be done to meet the customer's needs. The service must also be offered at a competitive price; therefore the costs will be kept as low as possible for the service. This is done by improvements, innovations and new technologies.

On a monopolistic market the pressure for innovations and improvements will not exist and no selections for the customers exist either. All have to use the same service whether it is the best solution for them or not.

7 Interviews

Pilotage as a subject is actually quite little researched in Finland and therefore it is difficult to get information about it. That is why the empirical part of this research is made by interviewing persons working within the pilotage business or related areas. Most of the interviews were done in Finland. In order to get a wider perspective of the subject also a few interviews were made in Denmark, where pilotage was opened for competition already in 2006.

The monopoly has been quite widely accepted way of organizing pilotage in Finland and only recently questions have been raised about how pilotage could be organized more effectively. Through the interviews the meaning was also to get personal opinions of the experts working within the industry of the consequences of opening pilotage for competition in Finland.

The interviews for this research have mostly been made by telephone but also some were made face to face. The purpose was to get a wide perspective of the pilotage by interviewing state pilot enterprises, privately owned companies, competition authorities and also some other sources who are working within the pilotage segment. Because of the sensitivity of this subject in Finland at the moment, I as a researcher have decided to respect the wish by some interviewees to stay anonymous. Therefore I will in no circumstance reveal their names, employer's or any other information that could endanger their anonymous status.

According to Captain Joakim Håkans, Managing Director of Baltic Pilot, state enterprises that are functioning on a “full cost coverage” principle, are ready to meet competition because they are acting on normal economy principle except that they are not paying taxes and they do not bear the risk of making bankruptcy. State enterprises like Finnpilot shall according to EU not even exist.

7.1 How to arrange pilotage?

According to an anonymous source in Denmark (source A), where pilotage have been opened for competition in 2006, the new system has been functioning but, the state is losing money because of the private operators. The private operators are mostly operating at ports with heavy traffic and the state pilot company DanPilot is obliged to serve also the non-profitable ports. In Denmark pilotage is shared in different regions, like in Finland, and some of these areas are not profitable.

There have been discussions in Finland about a risk that pilot operators would lose the interest for small non-profitable ports and no one would anymore be providing services in these ports. Captain Håkans, says that a scenario like this shall not occur in reality, pilotage must be provided to all ports whether they are profitable or not. According to Captain Håkans the risk of losing pilotage operators for a specific area could be avoided by linking different ports and fairways into pilotage areas, the state could tender these sectors to all the operators. The winner of the tender would get a service obligation for a number of years for this area. Captain Håkans also thinks that many ports and fairways are profitable enough to be opened for competition in the real meaning. Open competition means that all operators are welcome to operate the port in question and that the price is set by the pilotage providers themselves.

Captain Håkans continues by telling that pilotage shall be provided to all ports in Finland even if a port in question is not profitable. For example Åland, this is a non profitable pilotage area. In Åland there are a lot of captains who sail for half a year. There are not too many pilotage operations to and from Åland. These pilotages could easily be made by the captains living on the island during their off period from work. These pilotages could be an extra job for those captains who wish to work more, he says.

Also other interviewees are on the same basis with tendering pilotage in different sectors, an anonymous source from Finland (source B) would organize the pilotage in Finland in this way only. Source B thinks that by tendering different linked sectors the pilotage could be ensured at all ports in Finland. Source B says that there shall not be situations where, for example at Utö pilot station, there are two or more pilot companies waiting at the same pilot station. Source B thinks that open competition does not come in question. Pilotage should be competed on the market but only by tendering different sectors linked by ports and fairways, he says.

Matti Pajula, the Managing Director of Finnpilot, says in an interview held on April 28th, 2009 that pilotage should actually be organized in a fully different way; pilotage should be put together with the vessel traffic service (VTS) instead of being competed. He says that pilotage is a small business in Finland and therefore there is no need to split it between competitors, it should rather be linked together with other state services so that the benefits achieved from economy of scale would not be lost. In his opinion the possibility of being able to use the personnel and the material in a cross over way is a strength in the system the pilotage has nowadays in Finland. Mr. Pajula also says that a big organization is better than a small one and this is the way the pilotage should be arranged in Finland also in the future.

One thing that the source A states to a risk situation in Denmark is that the private pilot companies do not have any obligation to continue with pilot services on an area where they have been providing these services. The company can actually turn around anytime and say that they stop working in the business segment of pilotage. This could be a big risk for the future, especially if the privately owned company is the only operator on the area of question. In this case stopping of providing pilotage services could have remarkable effect on shipping to this area. On a fully open market it shall though be possible to leave the market whenever the company wants (Ljung etc, p. 36).

Captain Håkans thinks that Finnpilot should have “Universal Service Obligation” for pilotage in Finland, at least in the beginning after the markets are opened. They should be obliged to participate in the tendering of different pilotage areas which would be made of some ports. This because Finnpilot has the economy of scale; they have pilots to all areas and enough of pilot boats too; they have all the resources available for participating in the tendering. This would ensure availability to all ports in Finland. Later this obligation could be reduced or

even excluded from FinnpiLOTS obligations. During this time it would be seen if FinnpiLOTS way of doing pilotage is the best and most efficient way. The competition would have easy rules; if you do not match the game you lose and fall out. The normal market rules would also be a reality for FinnpiLOT after the market is opened, says Captain Håkans.

Seppo Reimavuo, Head of Advocacy Unit at the Finnish Competition Authority, says that the competition authorities view is that pilotage should be opened for competition. There has not been shown enough proof for continuing monopoly in pilotage. Mr. Reimavuo says that it could be possible to, at first, tender different pilotage regions, at least to the most profitable parts. And it could even be chosen more than one operator for the area in question. After a while the system could change into a totally open competition or a system with both open competition for the profitable parts and with tendering less profitable areas and giving these areas SGEI status. Mr. Reimavuo says that it must still be investigated which parts could be profitable enough to be opened for open competition and which parts should be tendered as pilotage areas on the market.

Captain Soini, Chief Pilot and Operational Director at Baltic Pilot, states that Baltic Pilot has investigated the market of Port of Rauma and Pori and that if pilotage is done in the way they think is most efficient it should be economically profitable. Baltic Pilot is able to use the personnel more efficiently and they are also able to buy the pilot transfers from another company. This makes the pilotage more profitable according to Captain Soini. He also states that the same area is not profitable for FinnpiLOT.

It is also good to remember that in Denmark there has not arisen any kind of oligopoly situation. When pilotage was released for competition in Denmark in late 2006 it took a while for competitors to come on the market. Nowadays, in March 2009, there are 8 pilot companies operating on the Danish market. The competition is therefore healthy, 7 of these companies are privately owned and one is state owned. The state owned company has monopoly of transfer piloting through the Sound and the Belt and Source A says that this is the most lucrative part of piloting in Denmark. This does not seem to be a problem for entering the market by privately owned operators - the conclusion can be made from that there have been an increasing number of new operators on the Danish pilotage market.

7.2 Discussions of opening pilotage for competition

Captain Håkans thinks that pilotage is a service where the pilot company shall also listen to the customers and take into account their needs. Flexibility and tailor-made services for each customer as they wish is service that is needed on the market, says Captain Håkans. The pilotage quality could according to Captain Håkans be increased through competition of pilotage. He thinks that the service level would be forced up and that would also increase automatically the safety.

Source B thinks that safety in pilotage would not be affected through competition because there are rules that already have to be followed. But by tailor-made packages consisting of, for example, towing and agency services, the service level could be increased.

When asked if safety, service level or price would be affected by competition of pilotage, Mr. Pajula answers that it is impossible to answer a question like this. He says that there are no boundary conditions made and neither any model on how competition would be organized. He states that it would be very costly to open pilotage for competition and that if it is not done properly it may become a fiasco.

Frank Gottlieb, Pilotage Superintendent from Danish Pilot Authorities, says that pilotage quality and education have been ensured in Denmark by implementing the resolution A.960(23) from 2003. He also remembers that Denmark was the first country to implement the IMO resolution A.960(23) from 2003. This resolution is about:

“Recommendations on training and certification and operational procedures for maritime pilots other than deep-sea pilots, which includes Recommendation on Training and Certification of Maritime Pilots other than Deep sea Pilots and Recommendation on Operational Procedures for Maritime Pilots other than Deep sea Pilots”. (IMO / pilotage)

Captain Håkans thinks that on a competitive market the service level will play the most important role. All operators on the market are striving for better safety but the service level will be the most important competition factor. He says that according to some of their customers the price is not as important as a good and reliable service. Captain Markku Soini

shares Captain Håkans opinion; he says that competition is much about customer service. And that a satisfied customer, not only comes back to the service provider, but even brings new customers. Captain Soini really thinks that “Quality is free”, invested money will make higher revenue through an increased service level and by that market shares can be won. He also thinks that innovations will decrease the price of piloting while the quality would be increased at the same time.

One interesting question is in Captain Håkans’s mind; why is Finnpilot afraid of competition while they have almost 200 pilots, all boats and all the pilot stations ready and they even say that they do pilotage in the best way? If they are so good in their business they should not have to be afraid of a small competitor.

The Ministry of Transport and Communications is the owner of Finnpilot. Finnish Maritime Administration is also a part of the same ministry. Both Captain Håkans and Source B think that this is not right, they both state that the Finnish Maritime Administration and Finnpilot should be under different ministries. Finnish competition authorities also think that if pilotage would be opened for competition then Finnpilot couldn’t anymore be a state enterprise, they should be re-organized to a stock company.

For ensuring the safety, Captains Håkans and Soini and Source B think that there should be common rules for weather restrictions. At the moment there are not even recommendations. Source B thinks that the VTS should be supervising about the weather and following that the restrictions would be followed. Source B says that at the moment VTS do not have the knowledge of supervising this. There should be, according to Source B, more experience of seafaring at VTS than there is at the moment so that the VTS could better also supervise common pilotage conditions.

7.3 Pilotage quality

A committee, investigating how the pilotage should be arranged in Finland, arranged by the decision LVM130:00/2007 of Ministry of Transport and Communications, writes in its report that pilotage should be available at all Finnish ports and that the quality must be held at the present standard; pilots must be available at all ports within a defined period of notice.

Pilotage should also be arranged as cost efficient as possible. The safety aspects have anyway been the most important issue in the investigation about pilotage.

What is quality? How is pilotage quality defined? Captain Soini says that to increase the quality in pilotage, quality has to be defined first. As a former pilot of Finnpilot he says that Finnpilot defines quality as a time in which the company has to provide a pilot to a ship. Finnpilot has an obligation to provide a pilot to any ship that wants or is obliged to use pilot within a two hours period of notice (Finnish Competition Authority). According to Mr. Reimavuo Finnpilot reached this goal in 99,99 % of all pilotage assignments. Finnish Competition Authority asks if this is over quality. Captain Soini does not consider this as a quality measurer because he thinks that with the technology the world is fitted with today it should not be a problem to provide pilotage within a defined period of notice.

When asking Captain Soini what quality is, he states that the safety is an important thing in quality. Everything starts from the fact that safety rules have to be followed. Otherwise he thinks that planning of the pilotage is one of the most important things. It is important that the master of the vessel can in advance take a stand of what is going to happen. He thinks that planning the pilotage in advance is already a big part of the pilotage quality. And then at last: the impression the pilot gives to the customer that he is behaving and looking sophisticated is also good service, he adds.

Captain Soini continues to tell about the issue; by keeping the ship informed all the time during their voyage is important. The pilot should keep himself also informed about where the ship is sailing and their ETA to the pilot station. The pilot should be ordered by persons that really know the environment and weather conditions at the pilot station. Different info, like side and height of the pilot ladders, must be given in advance. Captain Soini reminds that it should be notices that many masters are usually nervous about the pilotage. Information given in advance may calm down the stress in tight situations, he says.

In the past pilots were ordered by contacting the pilot station, not through pilot order call centers like nowadays in Finland. The pilot did a lot of other things than just embarked the ship. He told the ship in advance about the weather conditions, available tug boats and if the tug boats were needed for the arrival and other information that was of importance during the arrival of the ship. This was quality, and it would be effective nowadays too.

In Mr. Pajula's opinion a good quality could be achieved by linking pilotage and VTS together. The VTS could offer normal traffic services to ships with pilot exemption certificate, and a more advanced service to ships that are not so familiar with the fairway. Also shore based pilotage could be tried, especially to those ships that know the fairway a little bit better. And then off course, the normal piloting service would also be provided. This all could be provided by one big organization, he says.

Both Captain Håkans and Soini thinks that by making a good relationship with customers, giving and sharing information that is needed, market shares could be won. This is actually quality of pilotage. And by being reliable and having a service that satisfies the customer there might even grow new customer relationships. When the customers get a positive picture of the company they do not easily turn to a competitor, they adds.

Source B thinks that pilotage quality is regulations from inside and in the pilotage itself it is that the pilots keep their standards. As a basic thing, it could be mentioned that pilots are always available, so the ships do not have to wait and be delayed from their schedules.

Frank Gottlieb, Pilotage superintendent at Danish Pilotage Authority, says in a telephone interview that the service level has increased after competition started. Now many operators do the same job and they have to think of new ways to provide the service to keep their market shares. Innovations have to be made all the time. This may in the beginning be a little bit more costly but in the long run it may become cheaper. He also thinks that the safety has changed after the markets were opened for competition, but only in a positive way.

Mr. Gottlieb continues to explain why the safety has increased through competition. Nowadays the pilotage companies have to give their statements over their quality and safety management and how these are improved. When using pilots, all the rules have to be strictly followed. There is no room for breaking the rules, he says. If one breaks the rules then the master, and pilot will be imposed a fine. The rules are supervised by the not-for-profit pilotage authorities. Violations will also be reported to the police.

Overall Mr. Gottlieb has a positive view from the competition of pilotage in Denmark.

8 Conclusions

8.1 Possible benefits of competing pilotage in Finland

By cost efficiency it is wrong to think that the safety will be endangered. Costs will be decreased as much as possible on a competitive market, but new improvements will anyway be done to ensure the safety. It must be remembered that the shipping companies appreciate safety. This conclusion can already be made by the fact that an accident usually costs a lot. Also the insurance companies demand safety of navigation at seas. It could be thought that all ship owners know the old saying: “if you think safety is expensive, try an accident”. Therefore it could be drawn the conclusion that if one pilot operator is unsafe and the others are safe, the unsafe one has to improve safety to keep the customers and to be able to stay on the market. Already the risk of losing the customers should be a reason enough to act as safe as possible and in a customer satisfied way.

A risk of having lack in safety issues could be solved by having strict regulations of minimum safety standards controlled by the authorities. If a pilotage provider would not comply with these regulations he could neither pilot ships in Finland. When the minimum standard for safety issues would be regulated then safety could also arise to be a competition factor. There are always companies who appreciate a good standard of safety. In the future I even think that safety issues will be more important than they are today. An accident is always costing a lot and in the future maybe even more because environmental protection is getting more attraction all the time.

During my career I have worked at the Helsinki VTS as a VTS-operator. With other operators we often thought about how there should be common rules for weather conditions during pilotage. In Finland there are no wind and visibility restrictions for pilotage. In a competitive market, and why not also on a monopolistic market, there should be rules made by the authorities who also supervise these rules. In the aeronautical business the traffic control takes the decision if the airplanes are taking off or not. In Finnish seafaring these kinds of rules do not exist. Many VTS-operators, and also many of the interviewees, think that rules like this would really help the pilot and the captains’ work and also ensure the safety at sea. If pilotage

will be opened for competition I really think this is one important thing to be implemented. There shall not be possibilities that one pilot company says that they are not taking a vessel in or out from the port due to bad weather condition and another company takes the vessels in and out. By common rules it could be ensured that the competition does not in any case endanger the safety.

It should be remembered that competition also exists in the aviation business. Air transport is considered very safe because of competition; competition together with strict regulations is one of the main safety affecter in the aviation business. In aviation traffic a monopolistic situation would probably be thought to be very risky and it would surely awake concern not only among the authorities but also among the customers. The rules are supervised by independent authorities who are taking care of that all the airline operators follow the safety issues. The pilotage could probably get same benefits in safety issues through competition but to be sure about this further research is needed. Maybe even in the future the thoughts would be more like in the aviation business; that a monopolistic pilotage market would be a risk for the safety.

In the research I have described the Finnish pilotage act and it can be noticed that it is easier to get a pilot exemption certificate for a fairway than it is to get a real pilot license. The State considers it to endanger the safety if a pilot license holder pilots ships for a private pilotage company. This seems a little contradictory with the fact that it is shown in many researches that private service providers are at least as good as public ones. Also the competition between the operators would be good because of the pressure the companies would get through this. It is a fact that on a competitive market you just cannot be bad, you have to strive to be better than your competitors. In towing and ambulance transport the public service providers are competing with the privately ones. Why could not this be the case in pilotage also?

It also seems very strange that a professional and skilled pilot, who meets all the criteria's for piloting ships, is considered to be a safety risk because he is working at a privately owned company. If this is the case then also pilot exemption holders should be considered as a risk, even if they would be sailing every day in the Finnish archipelago, because they are working for privately owned companies. A private pilot has at least the same education as a state pilot

because the education is stated in the law. Therefore it does not really seem to be a risk that a private pilot would pilot ships in Finland.

Rules for pilotage are really important but that's not enough. The rules also have to be followed and they have to be supervised by a fully objective and professional authority. The ones who break the rules should be punished - the pilot, the pilot company and the captain of the vessel in question. For ensuring safety it could be obligatory to give a statement of the pilot company's quality and safety management, like it is in Denmark. Then the authorities would decide if the company is complying with the rules or not.

The Finnish archipelago is exceptional with its narrow and shallow waters. The waters are also rocky and full of stones. Finland is also the only country in the world whose whole coast gets ice cover every year. When arriving to Finland in winter time, the ships have to be maneuvered in stony and ice covered waters, during winter time there is usually also hard wind. These are reasons why pilotage is very challenging in Finland. The safety of pilotage has to be regulated and therefore rules made by the authorities are needed. These rules together with the benefits that arise from competition will increase the safety of shipping in Finnish waters.

With competed pilotage the operators have to strive to a more cost effective behaviour, productive inefficiency is not acceptable. In a competitive market everyone has to improve their ability to make a good result. This could maybe lead to outsourcing some parts of the service, like pilot boats for example. Outsourcing in this case could also lead to a situation where the costs could be decreased. For example, if a pilot operator would buy the pilot transportation from another company, which could be also operating with other things in the harbour area, then they do not have to have pilot boats and pilot boat operators by themselves; they could just buy these services and pay for the job done. This kind of solution would probably also decrease the price of pilotage. The ship owners would be one of the winners if pilotage would be opened for competition. The service could be produced cheaper and therefore the pilotage fees could also be lower than what they are today.

On a competitive market the customers choose the service that fits them best. One company can find it difficult to meet all different consumer needs. On a competitive market the consumers can choose the best provider or the one which fits their concept in the best way. A

situation like this would absolutely make the pilot operators to strive for a better, more customer satisfied service. It should also be remembered that a satisfied customer will not only come back, he will even bring new customers to the company. Opening pilotage for competition would surely increase the customer satisfaction by having a service that fits their operation best.

Nowadays Finnpiilot is not paying any taxes to the state. They are getting a support for the Lake Saimaa pilotage of about 4 million Euros each year. If pilotage would be opened for competition all the operators have to pay taxes from their profit. This would maybe increase the price but by innovations the price could be held in an acceptable level and even get decreased in the future. The society could even win because of taxes paid. Maybe pilotage would even be more lucrative to use after an increased service level. Off course pilotage in Finland is at the moment obligatory but by good service the shipping companies would maybe prefer to use pilots instead of paying pilot exemption certificates to their masters.

Also supply of different tailor-made services, consisting for example of different shipping services or logistic solutions could be provided and this could be one mean of competition. Things like agency services, towing services, land transport for cargo or cargo handling at a port could be considered as services that could be linked together with pilotage. By offering a big package economy of scale could be achieved and also a well coordinated solution could be offered at the same time. There are different kinds of solutions that could be offered on a competitive market and by having as many services as possible a well functioning market could grow up.

If pilotage will be opened for competition in Finland I really think that tailor-made services will become quite common. The pilot operators could make tailor-made services fitted for each customer as they want. There would be basic service available, but for customers who want more additional package solutions could be offered. Maybe customers want more information about the port during their voyage or maybe they want crew transportation to the airport or just to the city for relaxation? For regular customers even more specific packages could be offered and be improved to meet their future needs. Maybe sometimes in the future we can see a tailor-made service with pre-information about the port, pilotage, tugboats, port operations, land transport and agency; all in one package made by one company or

cooperation by different companies. On a competitive market innovations and new solutions arise continuously.

Often there is a difference in efficiency between the private sector and the public sector. Also it must be noticed that after pilotage were opened for competition in Denmark both safety and the service level got positive effects. The companies are striving for more profit by innovations of their service and improvements of their safety. This is the only way to win market shares. If these effects would also arrive to Finland after competition it would be a remarkable win for the environment, shipping itself and also for the whole society. The environment would probably win by fewer accidents through an increased safety. The shipping lines would get lower pilotage fees and maybe also tailor-made services that fit their operation in the best way. The society could be a winner by the same reason; fewer accidents and more users of pilotage services, which means more money to the state because of taxes paid. In Denmark there are many operators on the market nowadays, even if use of pilotage is in a great sense optional. There is no reason why the same would not happen in Finland.

The fact is that the price will probably always be a competition factor. This will bring the pilotage fees down on the most areas. When the minimum safety is regulated in the law there will be no risk of having more accidents. The price will probably go down while the service level, which probably will be the biggest competition factor, will go up and become more tailor-made to customer's needs. Some shipping operators do look at the price as the most important thing but not all of them -some shipping lines will give value to a good and reliable service even if the price would be higher.

As discussed earlier in the research competition often decreases the price of producing services and there is a good chance this happens in pilotage sector as well. Because of the pressure companies would get from the open market and their competitors, would the price and service level probably be influenced. Also innovations and new solutions that arise to provide services in a more cost efficient way will lower the prices of pilotage. When the costs drop, the price of the service can be changed to a new customer satisfied level. In a situation like this the ship owners become a winning party, when they can choose a service for their needs at a compatible price.

Even though price is not the only factor in the competition, there is no denying that it plays a big role. Especially in a market situation we have today in the world, this is of great interest as almost everyone is trying to save money wherever they can. The economic crisis of 2009 has also hit the Maritime Industry and ship owners must think of their expenses as the money coming in has diminished. Even small savings will count and changes in the pilotage market could be one factor helping to keep the expenses limited. Who knows, the smaller costs could even bring more ships to Finland and it would surely help ship owners to survive and to be able to make innovations themselves with the saved money.

On a competitive market also real customer relationships may grow by serving the customers as they wish. On a monopolistic market this does not have to be the case because everyone, whether they want or not, must use the same operator. A monopolistic market, stated by law, will therefore not improve the service for the best of the consumers and the costs do not need to drop either, because the price is set by the state. It should be remembered that innovations and improvements done on a competitive market are not only done for the benefit of the pilot company itself, they will also benefit the ship owners and eventually, even the consumers.

It actually seems obvious to ensure competition by rules for the pilotage operators. Rules made by the authorities ensure that the competition really is on equal terms; it must be remembered that rules made between competitors may endanger the market. It may arise cartels, co-ordinate affairs etc. Also predatory pricing may arise to execute new comers on the market. These all are illegal according to the EU treaty and obviously must be avoided.

In Denmark the competition has overall been good for pilotage. I really see that this could be the case in Finland too. Ships that get a service they want could also listen more to the pilots opinion for example if he has some recommendations like use of tug boats or if he thinks that the ship should wait in port for better weather before leaving.

How should then pilotage be organized in the future? After the material I have gone through during this research it seems obvious to me that pilotage should be opened for competition. There seems to be more benefits than disadvantages from competition. The disadvantages can more or less be avoided by making clear rules for the business. The law needs to be changed anyway in both cases; whether the future of pilotage means monopoly or competition. The benefits achieved from competition are obvious; one cannot seriously disagree to that fact that

competition keeps the market alive and improving itself. When the decision is made of competing pilotage in Finland it should be remembered that the existent of change will always be there, and the change is accelerating. A competed market can better fit this change by keeping pressure on the competitors. This is the main point why pilotage should be opened for competition.

On all markets there are cheaper and more expensive service providers. By this the conclusion could be drawn that the price does not play the most important role. The shipping lines would benefit from this; the ones who want a special, more improved service are free to choose one and the ones who want a basic service, a service that is just complying to the rules, can have that one. The freedom of choice is probably the biggest thing that competition creates; the freedom of having a service that you want and need. Also in our daily lives we have the freedom of choosing from where we buy our food and clothes, why not give the ship owners the freedom of choosing a service they want?

8.2 Future researches

In the future it must be researched more closely on how competition of pilotage should be arranged in Finland in the future. There are many different alternatives in arranging the pilotage like; open competition, competition by tendering pilotage areas or a combination of these two. A closer look should also be taken into how the pilotage areas could be re-arranged and which areas are profitable and which are not. In these researches all the aspects should be taken in consideration, both private and public service providers. Also on areas where there has been only one pilot operator before, the fact that another service provider could have solutions to operate the market more profitably should be investigated carefully.

The researchers should not be allowed to have any interest in any of the operators' organization. It must be kept in mind that the Ministry of Transport and Communications is the owner of Finnpiilot, the same Ministry that is also the supervising authority of pilotage in Finland. Therefore the Ministry of Transport and Communications could be considered having interest in this question and cannot be considered as an objective researcher. The research must be done as objectively as possible and by a team with no conflict of interest for instance by the Finnish Competition Authorities.

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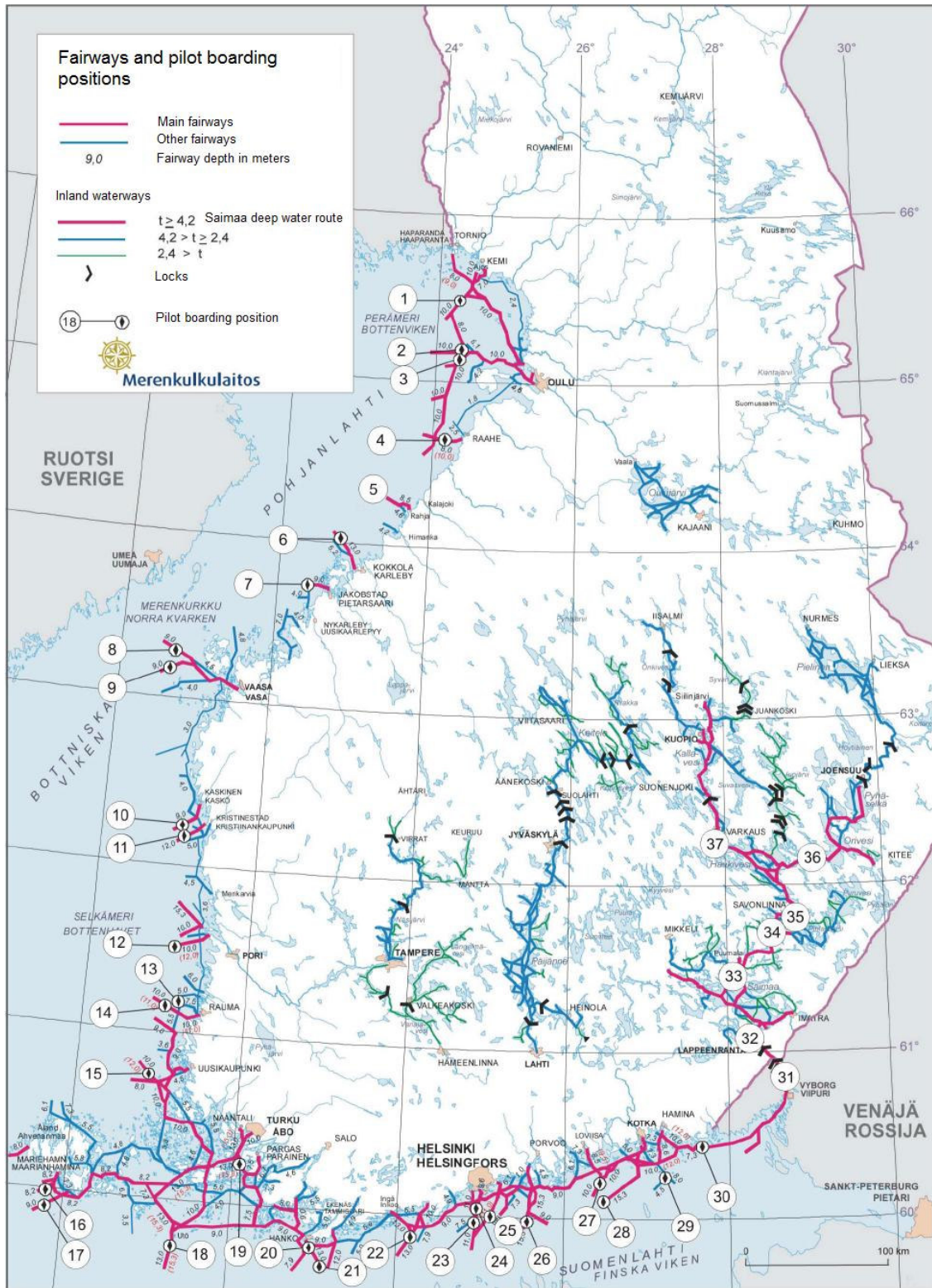
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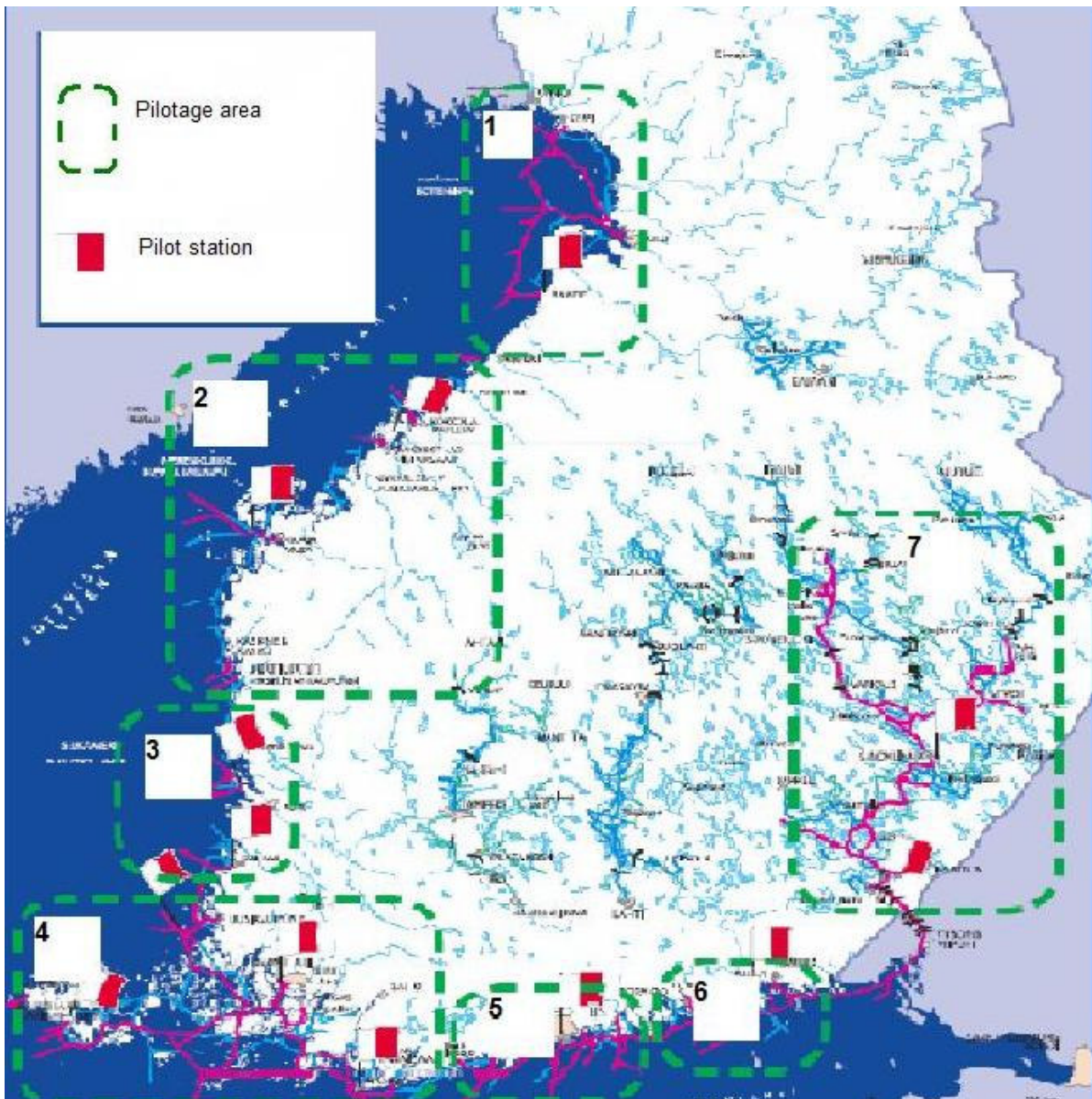
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