

The impact of competition regulation and law on innovativeness of SMEs in the logistic sector in the Netherlands

Author: Adin Sahbaz
University of Twente
P.O. Box 217, 7500AE Enschede
The Netherlands

Graduation Committee members: Dr. V.I. Daskalova & Dr. M. Ehrenhard

Keywords

Innovation, Competition regulation, Strategic behavior, Logistics, OECD

Permission to make digital or hard copies of all or part of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and the full citation on the first page. To copy otherwise, or republish, to post on servers or to redistribute to lists, requires prior specific permission and/or a fee.

9th IBA Bachelor Thesis Conference, July 5th, 2017, Enschede, The Netherlands.
Copyright 2017, University of Twente, The Faculty of Behavioral, Management and Social sciences.

1. INTRODUCTION

Innovation for companies is an integral part of economic policy to promote economic growth and welfare. The regulatory framework is usually enforced by governmental institutions. The different sectors and their stakeholders in the market can use this framework (self-regulatory coordination) to their advantage to stimulate innovativeness in their business (e.g. OECD, 1997). This regulatory framework (competition regulations/ laws) can stimulate or constrain innovativeness in a specific sector. For each sector the impact of the regulatory framework can differ. The information on the impact of the regulatory framework on innovation lacks. As it has not been researched in depth in antecedent studies. This impact can be researched and used to the advantage of entrepreneurs trying to enter specific markets (sectors) with their innovations. Furthermore, existing firms in specific sectors can use this studied impact to their advantage to keep their competitive advantage or gain a competitive advantage.

SCIENTIFIC AND SOCIETAL PURPOSE

From a scientific purpose, the impact that has to be studied (competition regulations on innovativeness in SME's) is important for not only new entrants, but also existing firms in specific sectors, because the impact has not been specifically studied before. The reason behind this could be that the life cycle of firms over the years has been changed. The last couple of years, innovation is one of the most important competitive advantages companies, especially SMEs, can have to succeed in the market. Also a reason could be, that companies do not think that the impact of regulation on innovation is such an important aspect for conducting business. Following is a couple of studies which reflect on the regulatory framework on innovation. The impact of regulatory frameworks on innovation has been discussed in academic literature on environmental issues (see Palmer et al., 1995 versus Porter and van der Linde, 1995). Also Blind, Petersen and Riillo came to the conclusion with empirical data, that low uncertain markets get constrained by regulations and standardization. The opposite, high uncertain markets, get more stimulated by regulations and standardization (Blind, Petersen, Riillo, 2017). This study shows that regulation does have an impact on markets. However, it does not research the impact of regulations on a specific sector in the market. From a societal purpose, it would be important as the impact for different sectors would be studied and explained. Hereby new firms and existing firms would better cope with the market. The economy would be better off, when the markets are better understood. Furthermore, innovation would lead to better (also less expensive due to the pareto-allocation (Barr, N., 2012)) markets, which the society could benefit from. As innovation not only improves efficiency, but also effectiveness, resources in markets could be better allocated. Companies would work more efficient and effective due to innovation. The efficiency and effectiveness would be beneficial influenced, as companies would be more geographically spread, flexible, competitive, changing to workplace dynamics and maximizing globalization connectivity (source in reference).

RATIONAL MOTIVATION

Given the differences of the regulatory framework for every sector and type of innovation, general conclusions cannot be drawn.

(Pelkmans and Renda, 2014). The impact of competition regulation on innovation is various times researched, but more specific case studies for SME's have still to be done. As SMEs could mostly cope with the market when they have innovation as a competitive advantage in a market with big players (suppliers). As the impact for every sector is different, research has to be done per different sector to know the impact of competition regulation on innovativeness for SME's. During this research the logistic sector in the Netherlands will be analyzed. The rational motivation of this research is that; entrepreneurs will understand the impacts of competition regulations in the logistic sector as this has not specifically been researched yet. The assumption that competition regulation promotes markets and protects innovation incentives will be tested.

RESEARCH OBJECTIVE

This study will perform a competition assessment for a limited number of innovative companies in the context in which they compete. The link between state of competition and the performance for success of innovative companies will be established. This will empower us to see whether competition law is actually stimulating innovative companies to get access to the market or constrain them.

2. RESEARCH QUESTION

To what extent does competition regulation / laws impact the innovativeness of SME's in the logistic sector in the Netherlands?

In order to answer the research question the following sub-questions will be answered in the analysis section of this paper.

What factors can influence innovation?

Is innovativeness more impacted by public or private regulations?

Does strategic behavior influence the way in which entrepreneurs want to compete in the same market as already established companies?

3. THEORETICAL FRAMEWORK

All figures mentioned are included in the appendix.

3.1. Innovation

3.1.1. Defining innovation

Granieri and Renda (2012) give the following definition for innovation: the creation of new (or the efficient reallocation of existing) resources which contribute to progress. The creation of new (or efficient reallocation of existing) resources is an ontological approach. As here an innovation can be: user-generated innovation, automated innovation, industrial R&D projects and public investment (Pelkmans and Renda, 2014). The teleological approach states that an innovation can only be seen as an innovation to the extent that it contributes as progress for social welfare. When the resources could not be allocated more efficiently elsewhere, the innovation can be seen as a progress to social welfare (Pelkmans and Renda, 2014).

The OECD (2005) divides innovation into four types: product innovation, process innovation, marketing innovation and organizational innovation.

The economic literature distinguishes innovation between disruptive (radical) and incremental (follow-on) innovation. When an innovation replaces existing products or process it is called a disruptive innovation. The opposite, improving attributes in products or processes is an incremental innovation.

3.1.2. Measuring innovation

Managers of firms which invest in the R&D have to evaluate the performance. Evaluating performance determines whether investments made are justified. When evaluated, managers can see if the maximum productivity of a technology (innovation) has been reached (Cordero, 1990). Evaluating overall performance means evaluating marketable outputs, resources to commercial metrics and resources to technical metrics. Before implementing an innovation, the measurement takes place in different stages. The first stage is the planning stage, in which the estimation needed has to be evaluated for innovation strategies. Hereby, the allocation of resources can be made. During the control stage, the measures should evaluate performance to know whether corrective action needs to take place (Cordero, 1990). Also the performance which is achieved by an NPD process is the innovation performance of a firm (Salomo, Strecker and Talke, 2007). An alternative way to measure the performance of an innovation is described by Cooper and Kleinschmidt (1995). The innovation performance can be measured by: success rate, sales percentage, profitability relative to spending, technical success rating, sales impact, profit impact, success in meeting sales objectives, success in meeting profit objectives, profitability relative to competitors and overall success.

3.1.3. Importance of innovation for SME's

Successful small and medium sized enterprises are characterized by innovation. Innovation is for SME's the most important characteristic associated with success. Innovative enterprises usually achieve stronger growth or are more successful than those that do not innovate (Imaginenatincomau, 2016). Furthermore, enterprises that gain market share and increase their profitability are innovative SME's (Tidd et al. 2005). High innovation performance is described by academic literature as an important characteristic for competitive advantage for SME's (O'Regan, Ghobadian & Sims, 2006).

Factors that influence the competitive battle between companies have changed over years in my opinion. From the 60's till the 90's the focus has changed from productivity and quality to flexibility. From the 90's till now the focus is to get a competitive advantage as a company lies in innovation. The advantages of innovations range from having a sustainable competitive advantage to requirement to survive in a turbulent market.

SMEs have to use product innovation in accordance with their competitive situation. When competitive pressure is low, SMEs should be cautious about exaggerating investments on product innovation, whereas investments in other type of market oriented behaviors could be more productive. On the other hand, firms

should focus on innovations based on market orientation when the competitive forces expose them to a harsh environment. (Ballester).

3.1.4. Innovation in the logistic sector

Innovation in the logistics sector is one of the most critical aspects to provide successful logistics services. The importance of having the knowledge for utilizing improvements for products and processes in the logistics sector is linked to organizational performance (A.Ellinger,D. Ellinger and Keller, 2002). Furthermore, customer-focused innovation is linked to a firm's performance based on academic research.

3.2.Regulation

Regulation can be used by governments to exert a wanted impact on the level and direction of innovation, in almost every sector and economy. When markets do not lead to a social optimal result (Pareto efficient – article), governments can engage regulation to force optimal allocation in a situated market (Pelkmans and Renda, 2014).

In Figure 1.1 we distinguish two causal effects which we will research in this study. The impact of the competitiveness in a specific market on innovation for SME's can be hindered or stimulated by different aspects. Public regulations, private regulations, strategic behavior and power are different aspects which can hinder or stimulate the innovativeness of SME's, Public regulations can be sector specific or general (e.g. subsidies, taxation, labor and protection). For private regulations - codes of conduct, industry association and standardization can be set up to regulate. Strategic behavior is the behavior competitors can follow, which exclude new entries. A strategic behavior could be, making a long-term contract with a couple of suppliers. This way they have excluded new entrants till their contract is valid to make business with their suppliers. For power, powerful customers, powerful suppliers and powerful competitors are important (CAT OECD, 2005). When for example the most powerful customers are convinced of the new innovation, the rest will follow. This is part of the innovation adoption curve.

In figure 1.2 we see the innovation adoption curve by Rogers. The innovators and early adopters are the most powerful customers. When succeeded to convince these customers to use the innovation invented, likely would be that the rest of the market will follow. This is why power is an aspect in the competition market that can have an impact on the innovations for SME's.

For the link between regulation (competition law) and competition market in a specific sector different case studies could be done to measure the effect. First the link between competition markets in specific sectors and innovativeness for SME's have to be researched.

In figure 1.3 we see that regulations, leadership/organizational structure and economic/financial aspects can lead to the importance of innovation. The aspects as viewed in figure 1.3 have push effects. Thus, economic/financial, regulations and leadership/organizational structure lead to the importance of innovation and not otherwise.

3.2.1. Porter's five forces theory

By applying Porter's five forces one may determine the competitive intensity and therefore the attractiveness of the industry. The analysis consists of five components: the threat of new entrants, the threat of substitute products and services, the bargaining power of suppliers, the bargaining power of buyers and industry rivalry.

On the whole, one may conclude, after applying Porter's five forces, if an industry is attractive. Falling behind the competition in terms of technology could prove fatal for the entire enterprise. Porter's five forces analysis is a framework for analyzing the level of competition within an industry and business strategy development. It draws upon industrial organization (IO) economics to derive five forces that determine the competitive intensity and therefore the attractiveness of an industry. Attractiveness in this context refers to the overall industry profitability. An "unattractive" industry is one in which the combination of these five forces acts to drive down overall profitability. A very unattractive industry would be one approaching "pure competition", in which available profits for all firms are driven to normal profit. This analysis is associated with its principal innovator Michael E. Porter of Harvard University (Porter, 2008).

Porter refers to these forces as the micro environment, to contrast it with the more general term macro environment. They consist of those forces close to a company that affect its ability to serve its customers and make a profit. A change in any of the forces normally requires a business unit to re-assess the marketplace given the overall change in industry information. The overall industry attractiveness does not imply that every firm in the industry will return the same profitability. Firms are able to apply their core competencies, business model or network to achieve a profit above the industry average. A clear example of this is the airline industry. As an industry, profitability is low and yet individual companies, by applying unique business models, have been able to make a return in excess of the industry average (Porter, 2008)

Porter's five forces include three forces from 'horizontal' competition: the threat of substitute products or services, the threat of established rivals, and the threat of new entrants; and two forces from 'vertical' competition: the bargaining power of suppliers and the bargaining power of customers.

3.3. The link between regulation and innovation

The impact of regulation on innovation is discussed a couple of times in previous literature. However, each study rather researches the broad impact of regulation on innovation than the sector specific impact. Empirical data (quantitative data) showed, that low uncertain markets get constrained by regulations and standardization. The opposite, highly uncertain markets, get more stimulated by regulations and standardization (Knut Blind, Soren S. Petersen, Cesare A.F. Riillo, 2016). Stakeholders try to influence the regulation-making body in their own interest (Stigler, 1971). To better understand the impact of regulation and standardization on innovation in different market conditions, the information asymmetry models (e.g. Akerlof, 1970) can be combined with the regulatory capture process in which

industries try to influence the regulation-making body in their own interest.

4. RESEARCH DESIGN

4.1. Data selection

As stated in the problem definition and research question, the impact of competition regulation on innovation will be analyzed for the logistic sector in the Netherlands. The research will be done for three companies chosen in the logistics sector of the most innovative companies in the Netherlands. The three companies will be chosen from the MKB's list of most innovative companies in the Netherlands over the years 2008 - 2013.

Innovation in a company assures their continuity. Therefore the chamber of commerce tries to stimulate this growth for innovation. As Europe lags behind other continents like Asia and North America, the European Union encourages innovation for development in economic growth. Since 2007 the chamber of commerce lists the top 100 most innovative SME's. This list is divided into eight sectors; Food & Agriculture, ICT, Industry, Creative Industry, Construction, Logistics, Human Health and other. During this research the companies will be chosen from the logistics sector. From 2008 till 2013 all the companies within the logistics sector are put into a table. This table consists differentiation by year and province. This way it was difficult to make an appropriate sample for this research. The companies are chosen with less than 75 employees and which are comparable in the type of innovation which they invented. Also two companies from 2009 and two companies from 2012 are chosen which still exist today. This way the sample can also be analyzed what changed over the years and if they still are innovative. Another criteria is that the innovation/invention has to have positive impact on the society. All the following data is retrieved from the MKB's website for top 100 innovations in the Netherlands.

4.2. Competition criteria

The companies chosen are going to be interviewed based on the competition criteria of the OECD assessment toolkit. The competition checklist is divided into four effects; limits the number or range of suppliers, limits the ability of suppliers to compete, reduces the incentive of suppliers to compete and limits the choices and information available to customers.

(A) Limiting the number or range of suppliers, means due to exclusive rights to provide goods or services suppliers cannot enter the market. Furthermore, the need of permits or authorization processes as requirement of an operation can limit the number/range suppliers. Geographical barriers can also be a barrier for the ability to enter markets for suppliers.

(B) Limiting the ability of suppliers to compete has impact on the ability for suppliers to set prices for or services, ability to advertise/market their goods or services and the ability to significantly raise costs of the production/services for a couple of suppliers in relation to others.

(C) Reduction of incentives for suppliers to compete means creating a proposal that is self-regulatory or co-regulatory regime. Furthermore, the requirement of suppliers outputs, prices, sales and costs have to be published in some cases.

(D) Limiting the choices and information available to customers is the case when customers do not have full flexibility

in their choice of suppliers. Also the reduction of mobility of customers between suppliers of good or services by increasing costs when switching from suppliers is a barrier.

By using the OECD assessment toolkit (CAT) the four most important effects in every sector are covered for this topic. Interview questions are based on these four effects.

4.3. Methodology

In order to answer the research question adequately several types of research methodology will be used. The research is based on a qualitative analysis; also called descriptive analysis. Meaning we will have to get data from interviews and surveys. This will be combined with desk research (literature review). The aim as mentioned before, is to analyze to what extent competition law/regulation affects a company's innovation. Therefore, in depth interviews have been conducted with managers from the chosen three innovative companies. In depth interviews are primary data collection methods, which are verbal and obtrusive. "Response set refers to the tendency of the respondent to answer items in a way conscious or unconscious, which gives a preferred image. This refers to the term social desirability which means that a person tends to answer items in a socially desirable way" (Dooley, p. 82). The awareness of being interviewed (direct verbal contact) will be tried to exclude from the interviews by conducting surveys and interviews, which give a consistent view overall. When obtrusiveness is a problem, the overall view will be distorted. This distortion can be analyzed and asked further for better analysis. Furthermore, the ethical approval will allow managers to speak more freely, as the data collected (asked) will stay anonymous. The reliability will be questioned by using the alternative-form method (Raskin & S Hall, 1981) in the interview. Hereby, the data collected will be more reliable by asking questions in a different way, but exemplifying the same question. For an efficient interview, the deductive approach will be used. Meaning working from the more general to more specific survey questions.

The sampling method is based on the MKB's most innovative companies over the years in the Netherlands. From a big sample over five years (2008-2013) from all the companies over the Netherlands, a small sample of three companies has been chosen by criteria explained in the research design section. Therefore, also the validity has been assured, as the companies are not randomly chosen. The companies are chosen specific for the logistics sector on ground. Also secondary data will be collected; data on the web about the companies, literature about innovation and regulation and the MKB's website for top 100 innovations in the Netherlands. For this case the unit of analysis are the chosen companies from the MKB's list and the unit of observation are the individuals; managers being interviewed. Limitations for this research could be that the managers do not want to inform us about classified data, which could harm their company. The selection criteria used by the MKB in order to compose the list for the most innovative companies could be unrepresentative for this research. As this research tries to analyze the impact of competition regulation on innovation of SME's, the sample of MKB could represent different types of innovative companies. The MKB list could represent companies which come with one time innovations. This could be a threat to the validity. For the interview, questions are operationalized on key variables, which I would like to test in this study to answer the research questions.

In the following table I have specified every question asked to the managers of the firms with the key variable behind it. Furthermore, for ease, the questions

Company information	
Conduct of business	What does your company do?
Conduct of business	Why did you decide to innovate in the logistic sector?
Conduct of business	Why did you register your company to MKB's top 100 innovations in the Netherlands?
Key variables	
Innovativeness	
Definition of innovativeness	How would you describe innovation?
Importance of innovativeness	To what extent is innovation of importance in your company (SME)?
Measurement of innovativeness	How do you measure innovation in your company?
Conduct of business	To what extent does your company engage in open innovations?
Ability to compete	What regulations hinder your innovativeness in your company?
Impact of public regulations	
Ability to compete	To what extent does public regulation influence the innovativeness of your company?
Impact of private regulations	
Ability to compete	To what extent does private regulation influence the innovativeness of your company?
Influences by strategic behavior, power and licenses/permits	
Conduct of business	What are the most important rules and regulations which your company faces in the logistic sector?
Ability to compete	Do these regulations mentioned influence the entry to this market in the logistic sector?

Ability to compete	To what extent does strategic behavior influence the innovativeness of your company?
Ability to compete, Limitation of number or range of suppliers	Would you characterize your relationship with suppliers/buyers as equal or do you experience inequalities of bargaining power when dealing with suppliers/buyers?
Ability to compete, limitation of number or range of suppliers	Are there any licenses or permits you have to get before conducting business in this logistic sector?
Ability to compete	Are you as a company influenced by the big suppliers in the market, which use the regulations in their advantage?
Reduction of the incentive of suppliers to compete	Which regulations support SME's to conduct business in the logistic sector?
Link between regulation and innovation	
Link between regulation and innovation	What is your perspective on the link between competition regulation and innovativeness of companies in the logistic sector? Does regulation stimulate or hinder the innovativeness?

Key variables and questions (divided into headings)

4.4. Limitations

Limitations are included in every research, as it is in this one. Limitations do not mean that your research is not valid. However, it does show the flaws what could influence the data of the research on quality, validity and ability to generalize conclusions. For this research there are a couple of limitations I faced. The first limitation is the sample used for this research. Due to the limited time period, we could not get a very big sample. Also a lot of companies were not willing to participate with this research. This limitation would be an even bigger flaw for a quantitative research. However, by conducting an exploratory qualitative research, the small sample is not a very big problem. The participation of companies was a problem and this was in my eyes lack of knowledge of the companies for this topic. The companies were not willing to cooperate, because they did not think that this would help them in any way possible. However, as explained in the problem definition, for the societal purpose it is important. Furthermore, the sample was chosen from the MKB's top 100 innovative companies every year in the Netherlands. However, the MKB's way of presenting a company as innovative could be different from innovative companies that are not listed in the list. This is a threat to the validity of the data obtained from the companies. Also the companies listed in this list have to register themselves. Thus, companies which are innovative (or

maybe even more innovative and do not want to know the whole world about their invention) and do not register themselves, will not be included in this list. Another limitation would be the social acceptable answers, which managers interviewed could give. This I tried to exclude from the data obtained by asking questions several times but in different ways. Another limitation, as mentioned before, is the lack of prior scientific research on this topic. This made it harder to do desk research where needed.

5. DATA

In this section the key variables; conduct of business, innovativeness, the limitation of the ability of suppliers to compete, the limitation of the number or range of suppliers, reduction of the incentive of suppliers to compete and the link between regulation and innovation will be explained by the information obtained from the managers during the interviews. For every key variable a different heading with data obtained will be established.

5.1 Conduct of business

Before starting the interview questions on the subject, a couple of questions are asked to know in what business/markets the companies operate. All three of the companies have registered themselves for the MKB's top 100 innovations in the Netherlands, because this would give them more name popularity. Company A provides the information on the tables in the Netherlands on the highways, etc. Company B has a platform in which car owners can rent their own car for a price and people who want to rent cars, can rent these cars. Company C has invented a car which is fully electrical and helps people with moving (totally green moving). Furthermore, all three of the companies engage in open innovations. Open innovations is the practice of companies to share innovative ideas with others. By sharing new processes and/or inventions within the company or with other companies to merge. The reason for open innovations nowadays is; companies cannot trust on only their own research (Lakhani and Panetta, 2007). They find it important as their innovation which made them successful were also open innovations. Company A said: "You do not know if it will work when someone comes with an invention. However, you'll never know what would happen if the invention succeeded."

5.2 Innovativeness

Innovativeness is broadly by all three of the companies described as "a product or process which differs from the rest of the market". Also for all three companies innovation is the main driver in their structure, as this ensures their competitive advantage.

The first questions asked about innovativeness is the most casual question you can ask; how would you describe innovation? Company A said: "Innovation is a solution to a problem which cannot be solved and/or is already being solved but can be done better". Company B said: "Innovation is totally different from everything what is already available. Radical innovations is what real innovations actually are. Process improvements we do not see as an innovation in our company." Company C said: "Innovation is the driver for most small to medium sized companies to differ from the rest. We would not have this interview if innovation was

a little improvement in a process which already is invented. Therefore innovation is not only an invention, but also a strategy for companies to differ from the rest and be successful.”

The next question on the variable innovativeness is; to what extent is innovation important for your company? The answers to this question was almost for all companies the same. Company A was very direct to this question. For company A, the manager said they would not exist in this dynamic market if they would not keep investing in R&D and their company would also not exist if the innovation was not implemented. Company B also points out that their company would not exist if innovation was not their lead strategy. Company C already gave answer in the first question about this variable. The third and last question on this variable was: how do you measure innovation? Company A does not have a specific way for measurement of innovation in their company. As they are the only supplier in the Netherlands for this service/product a measurement on innovation they find not important. However, they do find themselves involved in a lot of KPI's to measure their success. Company B has KPI's for the total rented cars per time period (over a rented car they have a percentage which they take from both parties) and puts this in tables to see over time (after marketing strategies) if they grow or not. For now they keep having a stable growing line. Company C also have KPI's to measure how often in a time period their fully electrical car is taken out for service. Also measurement from the moment an innovation comes to the R&D department to the market is measured. Furthermore, they tend to invest more in marketing the last couple of months, because people are more often using their service. The reason for this is that more people are more aware of the environment and society and want to help the environment.

5.3 Regulation

5.3.1. *The limitation of the number or range of suppliers*

The number or range of suppliers can be limited by regulations. To measure this variable the following questions with corresponding answers are asked and given. Do the rules and regulations for your sector influence the entry barrier? Company A directly said no. As there are not rules and regulations that limit the entry of his market. They find themselves more than only a supplier in the market. They deal with a niche-market. As they are the biggest supplier, they also do not have problems with strategic behavior of other suppliers. However, they do not have a lot of competition in their sector, as they are the biggest suppliers in the Netherlands for their product/services. Company B said: “We have to meet a couple of regulations concerning the cars. Also this makes it more risky and attractive to enter the market. Therefore there are not a lot of SME's rental car companies. But because we have a different concept, our risk is minimized in this sector.” For Company C has a lot of rules and regulations on environmental and societal purposes. They have to meet a couple of regulations to even conduct their business. They think the entry barrier is limited in their market, as they do not have many competition and they themselves tried for a longer time to enter this market and meet the regulations. Would you characterize your relationship with suppliers/ buyers as equal or do you experience inequalities of bargaining power when dealing with suppliers/buyers, was asked to all three of the companies. Company A already gave answer to this by saying we are the biggest in our

market. We have a niche-market. Thus they do not have the inequality with other suppliers/buyers. Company B does think they have experienced inequalities with the big car rental companies in the Netherlands. Even-though, they have a different concept, still when people think of car rental they usually think about the big players in the market. Company C does not have a problem with this. As they are one of a kind starting in this business. They are marketing their innovation more and more. Also the MKB gives them a lot of recognition. Thus for people wanting to move green, they can choose for company C they said. Are there any licenses or permits you have to get before conducting business in this logistic sector? Company A has to deal with the “regelgeving waterstaat”. This concludes how they can operate on the roads. It are not rules, but moral norms. Furthermore, the “arbo-wetverklaring” as every other company in the Netherlands also has to be meet. For Company B the privacy policy has to be meet. They do not have permits/licenses that needs to be granted before conducting business in this sector. Company C does have a lot of permits/licenses that need to be granted. They have a certificate for the quality management systems. Also for the environment management systems they have a certificate. This is because they are keeping the environmental risks as low as possible with their innovation. Also as every other the “arbo-wetverklaring” for the insurance of employees. Personal management systems for the personnel is granted to company C. Last but not least, often in this sector the question on quality norm certificate is asked. They also have this one.

5.3.2. *The limitation of the ability of suppliers to compete*

The ability of other suppliers to compete is rather restricted by the strategic behavior of companies than regulations which restrict companies to enter specific markets. As two of the three companies are in a niche market they can influence the market for their products/services.

The questions asked in this section are about public regulations, private regulations, strategic behavior and other barriers that could influence the ability to compete in this sector. Company A does not have a lot of regulations that they have to deal with. However, their sector and market in which they operate does have strategic behavior influences. The strategic behavior influences are given by the biggest player in the market and that is company A themselves. They want to keep their competitive advantages - innovation and biggest in their market - by pushing on the other suppliers with strategic behavior. This way they always have time to adopt, when there is someone with a better plan. Company B has a couple of public regulations which they have to meet for the car rental. The standard needed papers (APK, insurance, assumption) for every car in the Netherlands have to be in order before renting a car. For private regulations, there are a lot of codes of conduct for this sector. “A company has to be trusted, before going into see with them” Company B said. Therefore they first needed to get recognition by the MKB and other platforms before business. Furthermore, there are a couple of standardization in this sector, as the way a car is rented. This is available like every other rental service in the Netherlands: online or via telephone. Company C finds themselves meeting a lot of the public regulations on environmental rules, societal rules, quality rules, etc. For private regulation there are no regulations which stimulate and/or hinder their conduct of business. Furthermore, strategic behavior is also not a problem in their sector. The manager said “If we would operate like every other moving service, with normal cars, we would have a problem with

the bigger suppliers. They can drop their prices and still be profitable. However, we are a totally different concept on moving. People want to help the environment even if they have to pay a bit more.”

5.3.3. Reduction of the incentive of suppliers to compete

The government in the Netherlands helps SMEs with the law WBSO, which gives subsidies. However, only when they meet the regulations of WBSO. WBSO is for Dutch companies which have research projects. Starting entrepreneurs, freelancers, SMEs to multinationals in every sector in the market could get subsidy from this law. Inventing technical physical products, physical production processes and/or researching a technical-science subject could get you qualified for WBSO (Rijksdienst voor Ondernemend Nederland, z.j.) Furthermore, incentives internally are not specifically discussed in the companies.

The question which regulations support SME's to conduct business in the logistic sector is asked to see if there are incentives that stimulate SME's in the logistic sector to be innovative. As for every other sector, there is an law in the Netherlands called WBSO. This law works together with the MKB and tries to help SME's with subsidies when they have innovations. To see if a company has right to get WBSO subsidy, they can go to the site WBSO-MKB.NL and do the check. Furthermore, Company A said: “for open innovations or process improvements conceived by employees, incentives are available. But only IF the innovations go to the market.” Company A did not want to go into detail into the incentives question. However, they did say “there are always rewards for open minded employees.” For company B incentives are not really needed, as their company is owned by not so many people. These people are also the founders of the company. Thus, for them incentives are not needed they said. When an new innovation succeeds they get the return of it directly. Company C rewards their employees that come with new ideas with a “green-minded dinner and opportunities for the future in the company”.

5.4 The link between regulation and innovation

The link between regulation and innovation is by two of the three companies described as positive. The reason behind this is that when meeting the regulations for their innovations, they get provided subsidies by the government, which stimulates their conduct of business. The other company finds the regulations not stimulating, as the companies has to meet a lot of regulations. However, there is no “reward” by meeting the regulations.

What is your perspective on the link between (competition) regulation and innovativeness of companies in the logistic sector? Does regulation stimulate or hinder the innovativeness? These questions are asked to all three of the companies. Company A does think there is a link between regulation and innovation. However he does not think it hinders the innovativeness in his company. The reason for this is that he does not have a lot of regulations he needs to deal with (only the ones mentioned before). However, the government does support his company to keep providing the services/products they deliver, because it improves mobility in the Netherlands with less accidents. Thus

company A finds there is a positive effect for his company because he does not have to deal with the negative effects of the regulations. Company B finds themselves not so stimulated by the regulations, because they have a couple of regulations on which the cars rented have to fulfill. They find themselves more hindered by the regulations on this section. However, the thought after the regulations for their conduct of business they find usual. As the cars have to meet safety rules and regulations. Furthermore, when accidents occur a fully insurance report has to fulfill that they are not responsible for flaws on the car. Company C finds the regulations a lot on environment and societal purposes. However, they find that these regulations do support their company, as they get provided money from the government when they meet the regulations for the environment and society in the form of subsidies. Also Company C finds that the money provided for meeting the regulations for the environment and society is a need, as the regulations are very difficult to meet (in costs perspective and time perspective).

6. ANALYSIS

As studied before by academics; innovation is important for SMEs to succeed in the market (Tidd. Et. Al 2005). They get a competitive advantage by being innovative. (O'Regan, Ghobadian & Sims, 2006). Furthermore, all three of the companies find innovation the most important factor for their company. They find that innovation not only ensures a competitive advantage, but also find that their companies grew more by being innovative.

What factors can influence innovation is one of the sub-questions which was tried to research during this study. There are different factors that influence innovation. There are innovation specific rules that promote innovation. (Pelkmans and Renda, 2012). The WBSO law in the Netherlands is one of these factors. When companies meet the WBSO law in the Netherlands, the companies are provided by subsidies. Most of the companies find themselves hiring a consultant on this specific type of law to ensure that their company gets the subsidies. Other factors that can influence innovation are: public law, private law and strategic behavior.

Public laws have more stimulating effect on innovation. As before mentioned the WBSO is one of the public laws, which stimulates innovation. The WBSO reduces labor costs and others costs for the R&D of a project. The benefit of the WBSO you can deduct through your tax return in the Netherlands. This way you also have fiscal benefits. Two out of the three companies interviewed find themselves having the benefits from the WBSO law. They let a consultancy company on WBSO help them get the subsidies by meeting the laws.

Private laws have a negative effect on the innovation. This is already cited in the research design a conclusion made from a small sample. Thus it is limited valid. However, from the three companies, only one is faced with a lot of private laws. This company has to get a lot of certificates to provide the “quality” and “environment-friendly conduct of business” to ensure continuity of their company with their innovation. Furthermore, these certificates could also not be the standard certificates people would like to see in a company. Therefore, the certificates could also not always be reliable and valid.

The last sub-question is about the strategic behavior in the logistic sector and what kind of impact it has on the innovativeness. Strategic behavior has a lot of influence in this sector. As with strategic behavior the established suppliers already have contracts with consumers of their products/services. Therefore the

entry for new suppliers is difficult. Two out of the three companies are working in a niche-market. One of them has a totally different product in which they control the whole market. The other has an innovation, which establishes their position in the market. With this position they can influence the market for new entries.

7.CONCLUSION

The research question; to what extent does competition regulation / laws impact the innovativeness of SME's in the logistic sector in the Netherlands, cannot be answered in one sentence. By dividing this question into different variables, it can be answered. The hypothesis that regulation has an impact on innovation is true. However, there are different types of regulations in different sectors. Therefore we conclude our answer only on the competition regulations/laws in the logistic sector.

The impact of public laws on regulation has a stimulating effect, as the government tries to improve the innovation in the Netherlands by providing SMEs subsidies when meeting the regulations. Innovation is also in my opinion the most important aspect nowadays for companies to get a competitive advantage.

Private laws restrict innovation, as different kind of certificates have to be earned to show a level of "quality, environmental-friendly conduct of business, etc". However, when these certificates are earned not every consumer will ensure the validity of these certificates.

Strategic behavior also impacts the innovation in the logistic sector a lot. As market-leading companies can ensure their continuity through contracts with consumers. Hereby. The entry barrier for entrants is more difficult. Thus, the strategic behavior has a negative impact on innovation. Entrepreneurs with possible better innovations have to get through the entry barriers set up by the market-leaders.

References

- Akerlof, G. A. (1970). The Market for "Lemons": Quality Uncertainty and the Market Mechanism. *The Quarterly Journal of Economics*, 84, 488.
- Blind, K., Petersen, S. S., & Riillo, C. A. F. (2017). The impact of standards and regulation on innovation in uncertain markets. *Research Policy*, 46, 249–264.
- Cooper, R. G., & Kleinschmidt, E. J. (1995). Benchmarking the firm's critical success factors in new product development. *Journal of product innovation management*, 12, 374-391.
- Cordero, R. (1990). The measurement of innovation performance in the firm: an overview. *Research Policy*, 19, 185-192.
- Ellinger, A. E., Ellinger, A. D., & Keller, S. B. (2002). logistics managers' learning environments and firm performance. *Journal of Business Logistics*, 23, 19-37.
- Imaginenatincomau, A. (2016, 7 maart). 8 reasons why innovation is important to businesses today. Retrieved from <http://www.imagination.com.au/innovation-blog/8-reasons-innovation-important-businesses-today/>
- Lakhani, K. R., & Panetta, J. A. (2007). The principles of distributed innovation. *The MIT Press Journals* 2, 97-112.
- MKB innovatie top 100. (2012). MKB Innovatie Top 100 2012. Retrieved from <https://www.mkbinnovatietop100.nl/site/top-100-2012>
- MKB innovatie top 100. (2009). MKB Innovatie Top 100 2009. Retrieved from <https://www.mkbinnovatietop100.nl/site/top-100-2009>
- Kerzner, H. (2001). *Strategic planning for project management using a project management maturity model*. Chichester, England: Wiley
- O'Regan, N., Ghobadian, A. and Sims, M. (2006). Fast Tracking Innovation in Manufacturing SMEs. *Technovation*, 26, 251–61.
- Palmer, K., Oates, W. E., & Portney, P. R. (1995). Tightening environmental standards: The benefit-cost or the no-cost paradigm?. *The journal of economic perspectives*, 9, 119-132.
- Pelkman, J., Renda, A., (2014). *Does EU regulation stimulate or hinder innovation?* (CEPS Special Report No. 96). Retrieved from <https://www.ceps.eu/system/files/No%2096%20EU%20Legislation%20and%20Innovation.pdf>
- Porter, M. E. (2008). The five competitive forces that shape strategy. *Harvard business review*, 86(1), 25-40.
- Raskin, R., & Hall, C. S. (1981). The Narcissistic Personality Inventory: Alternative form reliability and further evidence of construct validity. *Journal of personality assessment*, 45, 159-162.
- Rijksdienst voor Ondernemend Nederland. (z.j.). Kom ik in aanmerking voor de WBSO? Retrieved from <http://www.rvo.nl/subsidies-regelingen/wbso/kom-ik-aanmerking>
- Salomo, S., Strecker, N. and Talke, K. (2007) Innovation Strategy – Investigating the Performance Effects of Innovativeness, Familiarity, Driver of Innovation, and Innovation Field Orientation. *14th International Product Development Management Conference, Porto, Portugal*.
- Stigler, G. J. (1971). The theory of economic regulation. *The Bell journal of economics and management science*, 2, 3-21.
- Tidd, J., Bessant, J., & Pavitt, K. (2005). *Managing innovation. Integrating technological, market and organizational change (3rd ed.)*. Chichester, England: Wiley.

Appendix

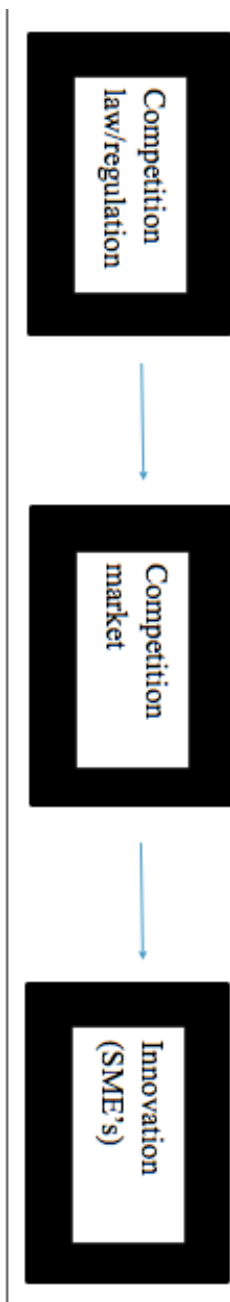


Figure 1.1 - causal effect to innovation for SME's

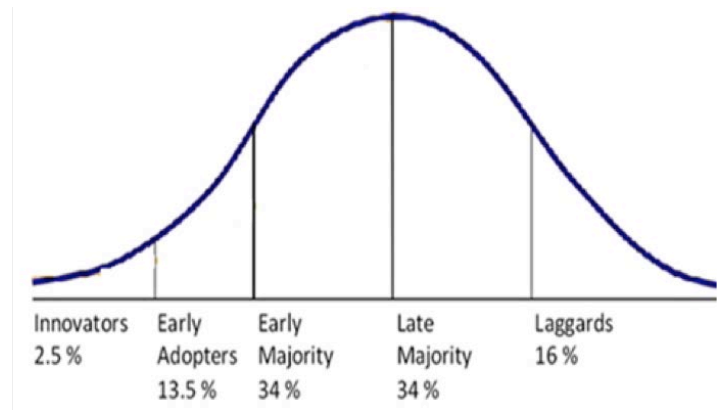


Figure 1.2 - innovation adoption curve (Rogers)

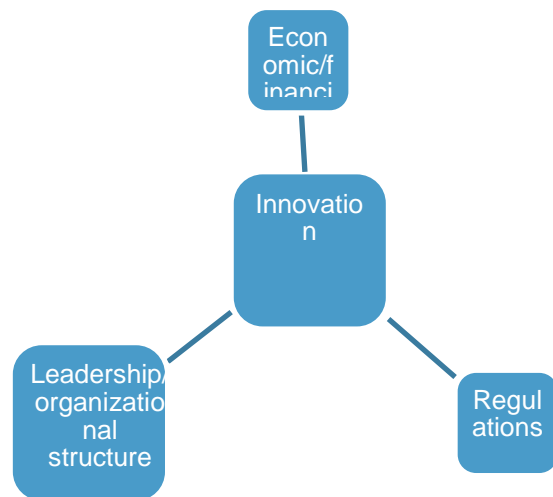


Figure 1.3 - Push aspects for importance of innovation

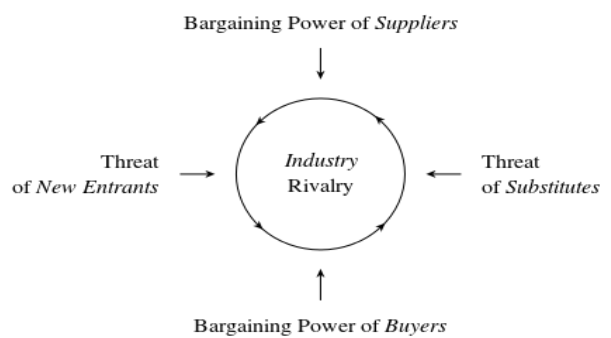


Figure 1.4 - Porter's five forces

