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First versus late mover advantages on scooter-sharing applications expansion processes

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“Some people want it to happen,
some wish it would happen,
and others make it happen.”

— Michael Jordan

This research is dedicated to all those people who make it happen.

Abstract

1/2

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Title First versus late mover advantages on scooter-sharing applications expansion processes			
Main subject International business and sales management	Level Master's degree	Date 7 April 2020	Number of pages 70 + 3
<p>Abstract</p> <p>The objective of this study is to investigate the advantages of varied market entries in Finnish electric scooter rental market. The first mover advantages are compared with the advantages gained from a latter market entry. In addition, it is also a goal to examine how these advantages can affect different markets of shared mobility services. This research aims to weigh the impact of these market entry advantages, what can be used in companies' expansion strategies.</p> <p>In management literature first mover advantages is a broadly used theory and the late mover advantages are also commonly acknowledged. The late mover advantages are sometimes explained of first mover disadvantages. This research uses Lieberman & Montgomery's model of these advantages as a baseline and intends to contribute to previous literature on examining these advantages in the shared mobility services environment. Shared mobility services are quite modern phenomena, that has not been researched much, especially from the first mover advantage point of view. This research intends to examine these two individual subjects together and to create new knowledge on the subject.</p> <p>The data for this research was gathered in interviews during the year 2019. The researcher reached out to all the companies operating in the respected field in Finland and all the companies were interviewed for this research. The interviewees represented themselves, but had a broad view of the market, because of their involvement in their respected companies. There are four companies operating in Finland and six interviews were conducted for this research. Two of the six interviews were additional interviews that added data from two of the people already interviewed earlier. The interviewees and their companies are presented without the company names to protect each company's strategies.</p> <p>The findings of this research propose, that in Finnish market the late mover advantages have been more effective than the first mover advantages. Because the services offered by these companies are similar from technological point of view, the first movers haven't been able to capitalize on the advantages gained from technological leadership, while the late movers have gained advantages from the first mover companies' marketing and visibility. This research proposes that the companies must invest in their visibility and marketing to be successful, or create technologies that are yet to be seen, to take the first mover advantages to the maximum.</p> <p>The purpose of this research is to study the field of shared mobility services and especially the electronic scooter rental market in Finland. The findings of this research are meant to serve the companies operating in shared mobility services, in their expansion and internationalization processes. Based on these findings the companies should invest in marketing and technological research & development to operate successfully. The shared mobility services market is still young and in constant evolution, what makes it important for these companies, to be able to adapt to rapid changes.</p> <p>Keywords First Mover Advantage, Late Mover Advantage, Shared Mobility Services, Internationalization, Expansion</p>			

Tiivistelmä

2/2

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Pääaine Kansainvälinen liiketalous ja myynnin johtaminen	Työn laji Maisterin tutkinto	Aika 7.4.2020	Sivuja 70 + 3
<p>Tiivistelmä</p> <p>Tämän tutkimuksen tavoitteena on tutkia eri aikoihin sijoituvista markkinoille tulo strategioista syntyviä etuja, suomalaisilla sähköpotkulautavuokraus -markkinoilla. Ensimmäisenä markkinoille tulevan etuja verrataan niihin etuihin, joita myöhemmin markkinoille tulevat saavat. Lisäksi on tarkoitus tarkastella, kuinka nämä edut voivat vaikuttaa muissa jaettujen liikunnan palveluissa. Tämä tutkimus pyrkii arvioimaan näiden markkina sisääntulojen vaikutusta, mitä voidaan käyttää hyväksi kyseisten yritysten laajentumissuunnitelmissa.</p> <p>Johtamisen kirjallisuudessa, ensimmäisenä markkinoille kerkeän edut, ovat yleisesti käytetty teoria, ja myös myöhemmin markkinoille tulevien edut on selvästi huomioitu. Joskus myöhempien edut selitetään ensimmäisten haittoina. Tässä tutkimuksessa käytetään lähtökohtana Lieberman & Montgomeryn mallia näistä eduista, ja tämä tutkimus pyrkii lisäämään jo olemassa olevaan teoriaan, tutkimalla aihetta jaettujen liikuntapalveluiden näkökulmasta. Jaetut liikuntapalvelut ovat vielä melko uusi ilmiö, eikä sitä ole tutkittu paljolti, varsinkaan ensiksi markkinoille ehtivän näkökulmasta. Tämä tutkimus pyrkii tutkimaan näitä kahta yksittäistä aihealuetta ja tuomaan uutta tietoa aiheista.</p> <p>Tässä tutkimuksessa käytetty aineisto kerättiin haastatteluissa, vuoden 2019 aikana. Tutkija tavoitteli kaikkia yrityksiä, jotka toimivat kyseisellä alalla Suomessa, ja kaikkia yrityksiä myös haastateltiin tätä tutkimusta varten. Haastateltavat edustivat itsejään, mutta heillä oli laaja näkemys alasta, koska toimivat näissä kyseisissä yrityksissä. Suomessa on toiminnassa neljä yritystä tällä alalla ja tätä tutkimusta varten pidettiin yhteensä kuusi haastattelua. Kaksi näistä kuudesta haastattelusta olivat lisähaastatteluja, joissa käytiin läpi tarkentavia kysymyksiä kahdelta jo haastatellulta henkilöltä. Haastatellut henkilöt ja yritykset, ovat esitelty ilman nimiä, jotta yritysten strategioita ei paljasteta.</p> <p>Tämän tutkimuksen tulosten mukaan, yritykset, jotka eivät saapuneet Suomen markkinoille ensimmäisinä, ovat saavuttaneet enemmän etuja, kuin ensimmäisinä saapuneet. Koska, näiden yritysten tarjoamat palvelut ovat hyvin samanlaisia teknologisesti näkökulmasta, ensimmäisenä markkinoille saapuneet eivät ole pystyneet hyödyntämään etuja, joita voisi saada teknologisesti johtajuudesta, kun taas myöhemmin markkinoille saapuneet, ovat hyötyneet ensimmäisten markkinoinnista ja näkyvyydestä. Tämä tutkimus ehdottaa, että yritysten tulee panostaa erityisesti niiden näkyvyyteensä ja markkinointinsa menestyäkseen, tai kehittää teknologioita, joita ei ole vielä markkinoilla nähty, joiden myötä he pystyvät maksimoimaan ensimmäiseen markkinoille tulijan edut.</p> <p>Tämän tutkimuksen tarkoitus on tutkia jaettujen liikuntapalveluiden aluetta, ja varsinkin sähköpotkulautojen vuokrauspalveluiden markkinaa Suomessa. Havaintojen on tarkoitus palvella, Suomessa alalla toimivia yrityksiä heidän laajentumis- ja kansainvälistymisprosesseissaan. Näiden tulosten pohjalta, kyseisten yritysten tulisi panostaa markkinointiin, sekä teknologiseen kehitykseen ja tutkimukseen, jotta ne voivat toimia mahdollisimman tehokkaasti. Jaettujen liikuntapalveluiden markkinat ovat vielä uudet ja jatkuvassa muutoksessa, minkä takia näille yrityksille on tärkeää pystyä muokkautumaan ja adaptoimaan nopeasti muuttuvat markkinat.</p>			
<p>Avainsanat</p> <p>Markkinapioneerin edut, Myöhemmin markkinoille tulijoiden edut, Jaetut liikuntapalvelut, kansainvälistyminen, laajentuminen</p>			

Table of content

1. Introduction	7
1.1 Background for research	7
1.2 Research problem	8
1.3 Aim of the study	8
1.4 Delimitations	9
1.5 The research questions	10
1.6 Key concepts	10
Shared mobility services	10
Electric scooter rental applications.....	10
First mover advantage	10
Late mover advantage	11
1.7 Structure of the research.....	11
2. Theory	13
2.1 Shared mobility services	13
2.1.1 Modern trends.....	14
2.1.2 Environmental view	15
2.2 First Mover Advantage theory	16
2.2.1 Advantages of first mover	16
2.2.2 Disadvantages of first mover.....	22
3. Methodology	27
3.1 Research task.....	27
3.2 Research Philosophy	27
3.3 Research method	28
3.3.1 Choosing semi-structured interviews as a research method.....	29
3.3.2 Collecting data with a semi-structured interview	30
3.4 Study design	31
3.4.1 Companies	31
3.4.2 Market areas	31
3.4.3 Research design.....	31
3.5 Analysis method.....	34
3.6 Validity and reliability.....	36
3.7 Researcher's role	37
4. Empirical findings	38
4.1 Presentation of the analysis and findings with the help of research question	38
4.1.1 Functional Benefits.....	39

4.1.2 Financial Benefits.....	41
4.1.3 Change in Mobility.....	45
4.1.4 Technological Benefits.....	47
4.1.5 Market Position	49
4.2 Summarizing the effects of First Mover vs. Late Mover advantage	53
4.3 Summarizing the key findings.....	55
5. Discussion	58
5.1 Contributions to existing research.....	58
5.2 Learned advices from the companies	59
5.3 The outcome of Mover strategies	60
5.4 Profitable learnings.....	61
6. Conclusions	62
6.1 Main conclusions.....	62
6.2 Limitations	63
6.3 Further research.....	64
7. Sources	66
8. Attachments.....	71
8.1 Interview form.....	71
8.2 Additional interview form.....	73

1. Introduction

1.1 Background for research

The way people consume services and products has changed drastically in the last century. This can be verified from the annual report of the Finnish trade union. (Kaupan Liitto, 2019). The tendency is to offer products and services more often online and through applications. The online sales of consumer products grow around 15% annually, when the brick and mortar store sales grow around 5% annually. (Kaupan Liitto, 2019). Online sales include sales made in traditional online stores, but also sales made through applications, which is currently the biggest growing sector.

The researcher is very interested in the services that are provided via apps, because he feels that people are shifting more and more to the model where they choose some service providers and stick to them. Some examples: People used to rent movies from rental establishments, but nowadays they pay a monthly subscription to Netflix, HBO, or Viaplay to consume their entertainment, and most likely watch it through an app. Previously people would book hotels or hostels by calling the reception, but nowadays one would simply browse through all the hotels in Hotels.com, Trivago or the newcomer AirBnB. Taxis used to be managed by territorial call centres or institutions controlled by government, but nowadays there are multiple companies that provide transportation services like Uber, Yango or Taxify. Food services have become very competitive market field since there are multiple companies that offer food delivery services, such as Wolt, Foodora, Uber Eats and Deliveroo. Several different companies have also entered the market of shared mobility services in Finland. These services include ride-, car-, bicycle, boat- and scooter-sharing.

The main trend that is shared over the boundaries of these markets is that most of these services use some sort of a partner services to fulfil the customers' requirements. The role of the seller has shifted from "merchant intermediates" that buy from distributors and sell to customers to orchestrators of two-sided platforms, according to Sorescu et. al. (2011). For example, when the end customer orders a car from Uber app, Uber sends the information to the driver, who is not in a direct employment situation with Uber but works as his or her own employer. This type of model reduces the risk from the services provider because they don't have to carry the risk of recruiting so many employees.

The reason why the researcher is interested in these types of companies is because he feels that this trend is going to move further on to more and more fields of business and getting to be in the customer's top10 most important applications is an important part of continued sales. It might require big investments from the service providers to uphold that position, but the purchases will be made easy for the customer, and therefore one would expect loyal customers. In his study Ramanathan (2011) showcased, that gaining the loyalty of the customer, has increased its importance, especially in e-commerce, for companies to succeed financially.

As portrayed in the first paragraph, the inevitable change in the way people consume, can be seen from the report of the Finnish trade union (Kaupan Liitto). Because of this the researcher wanted to focus on sales and services that are mostly consumed online, and especially through the mobile platforms, them being the fastest growing sector.

1.2 Research problem

The research problem of this study is the quick and competitive nature of the field of business. Services that are provided via apps and shared mobility services are both new fields of business compared to many other more traditional markets. Because of these elements the market is still shaping up and finding its form, and there are newcomers arriving to the market all the time. As the field of business is so new there is also not much research about shared mobility services and specially about the ones that are featured in this research, and because of this there is demand for this kind of research. Also, there are big technological advantages happening in the application side, so the power of first mover cannot be overlooked upon. The nature of these services allows them also to be quite easily duplicated, so the companies must acquire their customer base rapidly and not lose its customers to the upcoming rivals.

1.3 Aim of the study

The aim of this research is to provide a framework that projects what are the benefits and disadvantages of being first or later a specific market. My hope is that this research can be used as guide for companies, when they are planning their internationalization, and to which markets they want to expand to. Of course, this is quite broad aim for a master's degree, but I believe that the market will continue its shift to more mobile platforms and there for there will be a

demand for the findings of this research. I also hope that the electric scooter sharing companies that I have examined in this research will find the research valuable for their upcoming internationalization plans, as they will have more insights from the past. The article of Liebermann & Montgomery (1987) has provided profound base for this research and in their article, they provide recommendations for future research. They state that first mover advantages are a valid point of view for a research, but researchers should intent to examine the phenomena from more than just one point. In this research the aim is to take into consideration first mover advantage and late mover advantages in a broader view.

1.4 Delimitations

This study will be limited to shared mobility services and specifically electric scooter services providing companies in Finland. This study will focus on the benefits and disbenefits that a company gains for being the first one on market or entering the market after other companies have already opened. These expansion decisions can be made by the company to define new markets inside countries that they already occupy or completely new market in foreign countries.

The selected companies for this study portray a good selection of companies of different economically different sizes and different backgrounds, one company being American, two European companies and one local company from Finland. The empirical part will include interviews from all these four companies which gives a good representation of the situation in Finland. This market area is notably new, and the companies have not been in business for a long time, so there is a possibility to find interesting information. All four companies operate in Helsinki, but few companies operate in other cities in Finland as well. The selected companies and the market experience competition from other form of shared mobility services, but that will not be included in this study. The study will focus on the competition between the firm represented.

1.5 The research questions

How electric scooter rental companies have benefitted from their early or late market entries to the Finnish market of shared mobility services? How an electric scooter rental company can utilize the advantage from their rival's investment to the market, with their late arrival to the market space? In their expansion process from a managerial perspective, how should electric scooter rental companies aim for untouched markets or markets occupied by rivals?

1.6 Key concepts

The most important concepts that are mentioned in the later part of the study, will be introduced and explained here below.

Shared mobility services

Shared mobility services are services offered either by the local municipality or companies that enables user to make short term rentals in different modes of transportation. The modes of transportation include vehicles, bicycles or other modes of low-speed modes of travel. (Cohen & Shaheen, 2018) This definition was chosen for this research because it is the one that is most reoccurring in the previous literature, and there are not many contradicting definitions.

Electric scooter rental applications

Electric scooter rental applications are companies that offer shared mobility services in a form of renting electric scooters for its customers. The common traits with these companies are the usage of an application for the rental process and the free-floating nature of the service, which means that the electric scooters do not need docking ports. (Cohen & Shaheen, 2018), (Hollingsworth et al. 2019)

First mover advantage

First mover advantages are advantages that a pioneer company gains for being the first one to introduce a new product or a service. The company may gain these advantages from a

technological superiority, pre-emption of scarce assets, buyer switching costs or from influencing the buyer behaviour. These benefits can reward the first mover companies with huge profits, large market quantities and monopoly-like statuses. (Lieberman & Montgomery, 1987)

Late mover advantage

Late mover advantages on the other hand are advantages that a company may gain from a situation where the pioneer has already introduced its product or service and the later arrival may benefit from the current situation on market. These advantages may arise from learning from the first mover's mistakes or from a situation where the customers have already been educated on how to use the product or service. Many of the late mover advantages derive from the pioneer company's mistakes and situations where the market has not been ready when the first mover has started its business. (Lieberman & Montgomery, 1987)

1.7 Structure of the research

The theoretical framework of this study will be presented in the section 2 of the study. The section 2 has been divided in to the first part that introduces the concept of Shared mobility services and the second part that focuses on the First and Later mover advantage theories.

The section that follows the theoretical part of the study, section 3, will consist of the methodology that is used in the study. In the early part of section 3 the basic philosophy of the qualitative research used in this study, is explained. Later, it will be showcased why this method was chosen for the conduct of this study. Also, the structure for the basis of the interviews used in this study, will be showcased.

In the following section 4, the findings of the interviews will be presented and analysed in detail. The factors that affect the involved companies' expansion plans and decisions will be presented and analysed.

In the last section of this study, the section 5, the conclusions and discussion will be drawn. The conclusions will be made in the limitations of this study and so that the data of the interviews will be compared to the already existing theory, that has been portrayed in the section 2 of the

study. In the later part of the section 5 there will be suggestions for future research on the matter at hand.

The following figure will present the structure of the thesis.

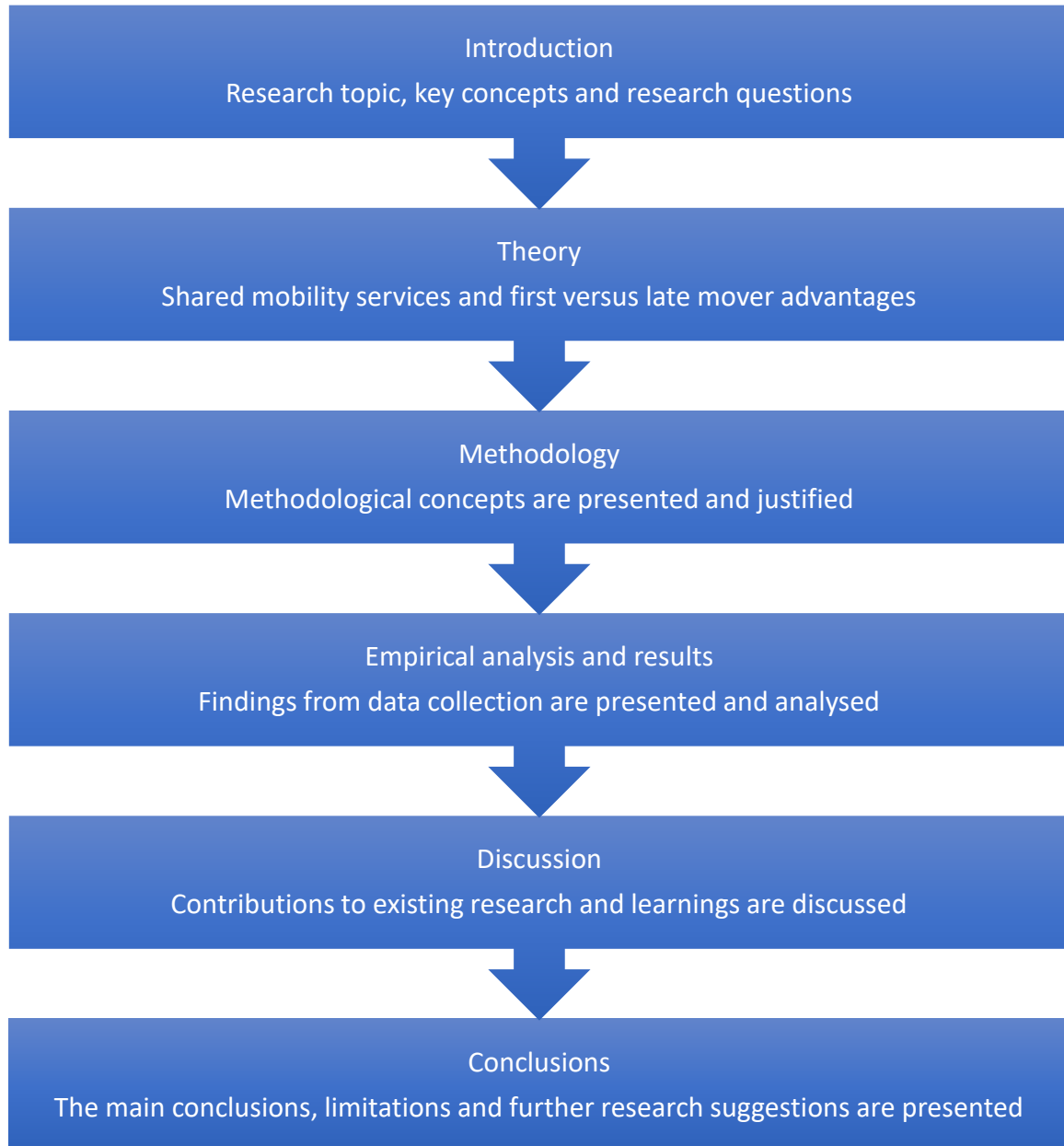


Figure 1. Structure of the thesis

2. Theory

2.1 Shared mobility services

According to Adam Cohen and Susan Shaheen (2018) Shared Mobility is “the shared use of a vehicle, bicycle or other low-speed travel mode.” Shared mobility services include return trip services, station-based services and free-floating services, which do not require docking stations for the rental vehicles. These kinds of services have been gaining popularity in Finland, as well in other parts of the world and more different variations of shared services get innovated almost on frequent basis. Helsingin Seudun Liikenne (HSL) introduced the city bikes in Helsinki during the spring 2016 and from there on they have been a big part of Helsinki street scene. City bikes have also spread to other cities in Finland.

Shared mobility services are a vital part of modern big cities urban planning and they possess other traits than just a form of transportation. (Cohen & Shaheen, 2018). These traits consist: Transportation and circulation, zoning, urban design, housing, economics and environmental policies. When different shared mobility services are available in a city, the people have better options to plan their routes and transportation, and with co-operation these services can help drastically city’s circulation. These services may also help with the zoning, because if the circulation works well, it may cause less need for parking spaces and personal cars coming to the heart of the city. The housing issue is also reduced when many people are using the vehicles, so less room is needed for housing them. Shared mobility services help with the urban design, because they can offer a needed first-and-last-mile connection to public transports and this way help different zones to be habituated. New services also often offer new types of economic growth, since they will create new jobs and opportunities. (Cohen & Shaheen, 2018)

Shared mobility services also often share environmental policies in their agenda, and this can be seen in their rise of popularity. Many of these services provide options that don’t generate green-house emissions, or the emissions are low. (Cohen & Shaheen, 2018). According to Midgley (2009) shared mobility services have become a permanent part of Europe’s cities street view also because politics have been incorporated into the business models. Cohen & Shaheen (2018) also acknowledge that shared mobility services fit well with modern day politics, that fight against pollution, global warming and greenhouse emissions. Entire areas and cities get moderated to the use of bicycles and other light transportation modes, when urban planning is trying to navigate the cars away from city centres.

On the business model side, these shared mobility services offer new possibilities and models. (DeMaio, 2009). Other models base heavily on the rent the customers pay for the service, when other services rely more on the marketing side when they have “self-moving advertisement” around the city. According to DeMaio (2009) many smaller universities and businesses have greatly benefited from local marketing of advertisements on shared bicycle services.

Cohen & Shaheen (2018) also introduce three models where the company does not have to be totally dependable on the revenue that is coming from the end-customers, since they get beneficiaries from the local government. These three models are: Shared mobility as social and environmental benefit, Shared mobility as sustainable business and Shared mobility as a business. First one sees shared mobility more as a service to the society and its members. In this framework local governments are usually heavily invested in the planning and organizing the service. This model is many times not as profitable but may result in more integrated systems. The second model is a mixture of governmentally operated model and business-based model, where local governments have some sort of power over the companies, but the companies are more responsible for their own business than in the first one. In this model the companies can benefit from aids provided by local municipalities, but the revenue is usually limited, because of the political influence. In the third model, shared mobility services are treated like regular businesses, and they don't get much aid or financing from the government. Also, usually they must pay more fees and invest more in the enablement of the services. On the other hand, if the companies are willing to invest as “regular companies” also the turnovers can be significantly higher than in the government-based model. (Cohen & Shaheen, 2018)

2.1.1 Modern trends

While city bikes have already cemented their position in the street view of many European cities, the newcomer in the shared mobility markets are the companies providing electrical scooters for short timed rentals. City bikes get rented from their stands, and the customer returns the bike to any one of their devoted stands. There are other variations, but this is the basic model in most European cities. (Cohen & Shaheen, 2018). Most of the shared scooter services operate as free-floating services, where a customer can leave the scooter anywhere inside its designated area. The first one-way rental scooters were launched in San Francisco in the early 2010's, but the services provided these days don't resemble the earlier versions much, since the type of the scooters have changed from gasoline fuelled to kick-to-start electric scooters.

Many of shared mobility services providers use a “recommend-a-friend-program”, or as it is more accurately called referral marketing strategy. According to Berman (2016) the advantages of referral marketing program are greater credibility in the marketing message when its coming from a familiar source, accessing to customers that might not be able to be targeted via traditional marketing and more suiting of the customer’s needs. Berman (2016) adds that companies that use referral marketing as their primary marketing strategy, want to see their customer base also as a bigger part of the equation than just consumers. The customers are influencers, advocates and contributors to the company and its brand. It is easy to believe that influencing through social media and services provided via apps, appeals to many young consumers in the time of social media influencing and marketing. Berman (2016) argues that a customer acquired via a referral system is 25% more valuable for the company, than a customer that has started to use the product or services without the referral system. When you add in the calculation that gets saved in the customer acquisition process the actual worth is 35% better. (Berman, 2018)

The typical referral system used in the shared mobility services is a model, where the customer gets added value for his or her account, so he or she can get some free rides or minutes, depending on the payment policy. All the independent services that operate in Finland in the field of shared mobility services and are not run by local authorities, but independent businesses, use these referral programs. Berman (2018) advises that the companies interested in the referral marketing strategy, must understand how it differs from traditional marketing strategies and that it is not suited for all kinds of businesses.

2.1.2 Environmental view

Many environmental reasons can be found with the increase of shared mobility services, that aim to reduce the usage of traditional cars. Cohen & Shaheen (2018) list six main impacts that are: reduced number of vehicles sold or delayed purchases, increased usage of alternative modes of transportation such as bikes and walking, reduced vehicle kilometres or miles travelled, better access to previously carless households, reduced greenhouse gas emissions and gasoline consumption, and better awareness of more environmental choices that everyone can make in their everyday life.

According to Cohen and Shaheen (2018) one of the biggest driving forces for shared mobility services in the past years have been the environmentally positive approach of the services. Cohen and Shaheen list the environmental aspect in their top three reasons why cities and customers should choose shared mobility services as their preferred choice of moving inside cities. Besides that, the shared mobility services can reduce the pollution levels in the cities, the pair of authors suggest, that having these sort of services also increase the awareness of environmental discussion among the habitants of big cities, when they are looking for alternatives to more polluting options. (Cohen & Shaheen, 2018).

According to Elliot et al. (2014) the increasement of shared mobility services has had positive impact also on the usage of public transportation, especially short passage trains. This is explained, because shared mobility services provide the possibility of connecting different public transportation systems to each other when the shared mobility service, bicycle or an electric scooter for example, can provide the much needed first, connecting or last mile of the passage. This phenomenon has a decreasing impact of automobiles in city centres and reduces emissions and fuel usage, as well as traffic jams.

2.2 First Mover Advantage theory

2.2.1 Advantages of first mover

According to Barney (1991) companies gain competitive advantages by benefiting their internal strengths, whilst at the same time taking advantages of the resources that are available. Barney (1991) also states that it is important for a company to react to the external threats that may cause a power shift on the market. All this has grand similarities with the First Mover Advantage theory.

In their 1987 article Lieberman & Montgomery, introduced the basic model for First Mover Advantage, that states the possibilities and financial advantages of a company that expand to a new market first or create a new business space. According to the article (1987) the First Mover Advantage can be broken in to three mayor categories: Technological Leadership, Pre-emption of Scarce Assets and Switching costs. Street et al (2013) also add influencing buyer behaviour to these three mayor advantages. In the following part these key areas will be under further examination.

2.2.1.1 Technological Leadership

Technological leadership is one of the most obvious forms where one can obtain advantages in the market. Lieberman & Montgomery (1987) divide advantages in technological leadership into two different areas, one being the learning curve and the other success with patents and R&D.

According to Lieberman & Montgomery (1987) when a company can invest more time and efforts to produce a product or a service, the costs of this product or service start to decline. It is then harder for competition to enter the said market, because for the lack of knowledge the first company has learned from the market, they in many cases must compete with price, which then means smaller profits. (Liebermann & Montgomery, 1987) When the first companies can secure the cost-leadership gained via the learning curve, can they maintain the leadership in the said market. (Lieberman & Montgomery, 1987). In a 1981 theoretical paper Spence (1981), showed that when companies can maintain the ownership of the learning curve, they can create large barriers of entry, for other companies trying to invade the market.

In many researches in the 1980's; Ghemawat (1984), Porter (1981), Shaw & Shaw (1984) and Fast (1975), the advantages of learning curve were witnessed, but later on, the effect of learning curve as an advantage of a first mover has been said to diminish. (Ghemawat & Spence, 1985). The diffusion of technology between companies is more substantial nowadays. Lieberman & Montgomery (1987) list workforce mobility, research publication, informal technical communication and "reverse engineering" as some of the reason behind the diffusion. However, the phenomenon is still a vital part of the advantages of first mover, even the effect ought to have lost some of its power. (Liebermann & Montgomery, 1987)

Businesses that rely heavily on technology and new business models, can benefit heavily from research & development and patenting their innovations. Companies that can patent their findings or keep them as trade secrets are mainly the ones that arrive first to the market; therefore this is a pure form of a first mover advantage. (Liebermann & Montgomery, 1987). However, in most industries being the first one on the market or the first one to patent the innovation, does not always guarantee long term leadership on the market, since in most industries the patents can be "invented around" or they only offer weak protection. (Liebermann & Montgomery, 1987). Some industries are more suited for said advantages, because of their nature. In an empirical research of Mansfield et al. (1981) it was shown that even in the field of

pharmaceuticals, 60% of the patents were duplicated within the four years. Liebermann & Montgomery (1987) list pharmaceuticals as one of the industries that rely most heavily on the leadership gained by patents. However, this does not mean that the first mover company that acquires patents and creates its value with new technological advances and innovations would not benefit from their patents. In their 1982 paper, Gilbert & Newberry showcase that companies can benefit from their patents even if they never actually bring them out to the market. The patents can be licenced forward to competitors or they can be held as a barrier to enter the market. (Gilbert & Newberry, 1982).

The first mover advantages and learning curve may also lead companies to new innovations and research & development, that is not linked to physical hardware. (Lieberman & Montgomery, 1987). In his research paper Teece (1980) argues that organisational innovations are slower to diffuse and therefore grant more and longer lasting first mover advantages to companies than innovations in processes or products. According to Chandler (1977) managerial innovations that enabled companies to pursue new scalable economies in manufacturing and distribution in past, such as American tobacco or Campbell soup, remain still in dominant position in their respected market segments.

2.2.1.2 Pre-emption of Scarce Assets

Liebermann & Montgomery (1987) list pre-emption of scarce assets as one of the biggest advantages that the first mover gains for being the pioneer on the market. The pioneer can gain advantages of controlling assets that already exist, or then get in position to gain control of the assets that will be created with the development of the new technologies. These assets can be physical assets or other types of process inputs. The assets can be part of positioning as the pioneer can get the best shelf places and other geographic spaces by arriving first to the new market. (Liebermann & Montgomery, 1987). The two authors then divide the pre-emption of scarce assets to three smaller groups that are: pre-emption of input factors, pre-emption of locations in geographic and product characteristic space, pre-emptive investment in plant and equipment.

Liebermann & Montgomery (1987) state that if the pioneer company has information that allows it to make key decisions before the arrival of competition to the market, it can purchase key assets at significantly lower prices than the assets will be when the competition is fierce in

the market. These kinds of assets consist of natural resources and the best retailing and manufacturing locations. These advantages are easy to categorise and even evaluate since they often may be pure economic rents or returns. Other factors that are included in the pre-emption of input factors are assets such as employees, suppliers and distributors. When the company is the pioneer of the market, they do not face fierce competition when acquiring employees or contacts with suppliers or distributors. (Liebermann & Montgomery, 1987)

In a 1955 research paper, Oliver Maine argued that companies that were able to acquire possession of high graded concentrations of nickel expositions, were able to secure the rights to the whole supply and that way to manipulate the whole world's market of nickel. This research paper is one of the first adaptations of first mover advantage theory. (Maine, 1955).

Pre-emption of scarce assets can also be a matter of a situation where the pioneer company on the market positions itself on the most convenient geographical sites, product characteristic spaces and the best shelf spaces. (Liebermann & Montgomery, 1987). The first mover company is then able to occupy the most desired niches of the public, when it comes to the product qualities, and the late mover companies must battle with worse product niches as well as worse displays, such as less endorsed shelf locations. (Prescott & Vissher, 1977). In their (1985) research paper Robinson & Fornell demonstrated that many first mover companies that focus on consumer products, upheld their superiority on the market by developing their product line with creating more niche product variations, so it would be harder for the competition to enter the market with subpar quality and worse shelf locations, that the pioneers had earned with the early arrival.

One of the largest scale ways that a first mover company can profit from pre-emptying the scarce assets is the pre-emptive investment in plant and equipment. In theory the pioneer company can deter rivals of entering the market by investing largely to manufacturing and lowering its costs with these investments. Rival companies could then be scared before the entry to the market with the possibility of lowering the prices, that are enabled with the manufacturing savings. However, this approach has not showed very potent in practice. Only in very particular markets such as the magnesium industry, this has proven to be a profitable strategy. (Liebermann & Montgomery, 1987).

2.2.1.3 Switching costs

One part of the first mover advantages are the switching costs, which can mean various costs that are involved when switching from a company to another. The pioneer company can usually avoid the big investments that the later entering companies must make, because of their first mover status. The later companies must make these larger investments, if they want to lure the customers to switch from the pioneers to the late entrants. The switching costs can be divided to at least three different categories. (Liebermann & Montgomery, 1987)

First of these switching costs consists from investments of time and resources to the seller's product or service. (Liebermann & Montgomery, 1987). A customer may for example buy a computer and then some software for it. After the customer has made these investments, it could be requiring more investments from him or her, if the software does not operate on the later released computer's operating system. This type of switching cost can also be a question of time, if for example a company has invested time and resources to educate its employees to work with first mover companies' product or service, and then evaluates the option to switch to competitor company's product or service. (Liebermann & Montgomery, 1987)

Second category of switching costs is portrayed in Wernerfelt's article (1988) and it has more to do with the learning curve that the buyer has adapted over to the first mover company's product. When a customer has learned the characteristic qualities and how to use the pioneer company's product, the customer may see it as inconvenient and costly to switch over to another company.

Third type of switching cost is a cost that is created by contract, that the customer signs when he or she acquires the product or service. Many times, these switching costs are intentionally constructed by the pioneer company to protect its market share. Airline frequent flyer systems are an example of this kind of switching costs. (Klemperer, 1986) In most cases, switching costs elevate the importance of the market share acquired early on the new field of business. Even ought the switching costs help the pioneer company to retain its strong hold of the market, they do not always guarantee that the first movers would make a strong profit. (Klemperer, 1986)

Buyer choice under uncertainty, is a distinctive form of switching costs. In his article, Schmalensee (1982) demonstrates how consumers easily tend to stick with the first brand that they encounter due to the lack of perfect information. This phenomenon is especially common in cheap consumer products, where the product "does its job" even ought the price, is not

expensive. Porter (1976) also pointed out, that it can feel unnecessary for the customer to search for other goods since the low-priced product satisfies the customer's needs. Searching for another product would easily only create expenses that are not necessary, if the consumer would not be as satisfied with its performance. In this kind of product lines, the pioneer company can easily turn its acceptance of the first product into a reputation that can then boost the sales of the company's other products through umbrella branding. (Wernerfelt, 1988).

According Liebermann & Montgomery (1987) there are many findings in psychology literature that provides links between the first product that the consumer tries and the amount of attention it gets in consumer's preferability. Therefore, late entrants must have vastly superior product to conquer the market share from the first mover. The authors list Coca-Cola and Kleenex as pioneers that have turned into the images of their respected products, because of the first arrival and such strong connection with the brand. (Liebermann & Montgomery, 1987)

These effects have been instated in traditional marketing research. Bond & Lean (1977) acknowledged in their study of pharmaceuticals, that the pioneer products were able to dominate the market, even though a new cheaper product entered the market space. Montgomery (1975) found out that the aspect of being new and first in the market was one of two biggest reasons for pharmaceutical professionals to endorse the product. These effects are greater in the consumer segment compared to the business buyers, that buy wholesale, since the effect of the price becomes much more relevant when buying bigger amounts of the said product. (Robinson, 1988)

2.2.1.4 Influencing buyer behaviour

One of the important aspects of the first mover advantages is the possibility to influence the buyer behaviour. In their research Street et al. (2013), the researchers rank influencing buyer behaviour as high in terms of sustaining success and high as collecting valuable rents from the source. Street et al. (2013) also state that a pioneer company that can influence the buyer behaviour may gain large advantages with its reputation. In his research Bouwman et al. (2014) how Apple and Android were able to influence the buyer behaviour at the right time, when smart phones started to gain popularity. Nokia used to be the market leader, but there was a large shift happening in how average users used their phones and the newcomers were able to

capitalize on this shift. The new coming firms are first movers on the smart phone sector, which was cannibalizing the existing standard phone market. (Bouwman, 2014).

Fombrun (2011) credits a large part of Apple's long-lasting success on the company's reputation. The author states that since the release of first Macintosh computers to the later iPhones and iPads, the company has been widely known for its good quality and thus for the customers are expected to pay premium prices for the products. This is largely part of the fact that Apple has influenced the buyers to be accustomed to pay premium for the privilege to own Apple products. (Fombrun, 2011). This phenomenon also supports Street et al. (2013) statement on how the companies can collect higher rates from their products, when they have once established their status by influencing the buyer behaviour.

2.2.2 Disadvantages of first mover

In the previous section of this thesis have been portrayed the most important effects that the pioneer company may gain from being the first one on the market. There are however disadvantages of being the first mover. According to Liebermann & Montgomery (1987) the four most common disadvantages that companies face includes: Free rider effect, market uncertainty, shifts in technology and incumbent inertia. These phenomena can create great advantages to the late mover companies or sometimes negate the whole effect of the first mover advantages. It is important for the first mover company to acknowledge these traits and ready itself for the arrival of late moving companies. These four disadvantages will be portrayed in the following section.

2.2.2.1 *Free rider effects*

One group of the effects that can be listed as a disadvantage for the first mover company, are Free rider effects. (Liebermann & Montgomery, 1987). The pioneering company can usually benefit from the time when they are the sole operators in the market and have the monopoly status. However free rider effects reduce the profits that the first mover company can gain from its monopoly days. These free rider effects include: Research & development, buyer education and the development of infrastructures. Usually the imitation cost are lower than the costs that the pioneer company has to invest in the first place, so it might be easier for the imitator

company to make its investment decisions based on the knowledge it has gained from the pioneer company's entry to the market. (Liebermann & Montgomery, 1987).

These free rider effects have been examined in Spence's (1984) research, where he studied the free rider effect in information spill overs in R&D. Ghewamat & Spence (1985) researched the learning-based productivity improvement as a free rider effect. Both studies have provided strong evidence of the free rider effect and companies with new business models and ideas must take them in to account when planning their new ventures.

The free rider effects can be exploited by a late mover company, when they are hiring employees. In their article, Guasch & Weiss (1980) point out free rider effects in labour markets, where the pioneer company must invest more in the employee education, whereas the late entrant can then acquire experienced employees that are already skilled with the business from the first mover company. On top of this, if the first mover company has already done some employee screening, the late mover company is also able to benefit from this as well.

The magnitude of the free rider effects is often related to the ownership of the assets that are additional or considered "co-specialized" with the innovation that the first mover company is providing to the market. (Teece, 1986). He argues that in many cases the free rider companies have gotten the benefit from these additional assets, that their organisational structures have offered. For example, even the company ought to be the first one on the market, another company can utilize the free rider advantages and acquire bigger sales with the help of its stronger organisational background that may include better marketing, distribution or customer reputation. (Teece, 1986)

2.2.2.2 Resolution of Technological or Market Uncertainty

Resolution of technological or market uncertainty are ways how the late entrant companies can gain advantages compared to the first moving pioneer companies. In their research Wernerfelt & Karnani (1987) waged the influence of uncertainty of the market, when companies are choosing between early or late market entry. According to their research, the companies that can affect how the uncertainty is dissolved from the market, are keener to early market entries. The companies that do not hold the power to dissolve the market uncertainty, are better off choosing a later entry. Wernerfelt & Karnani (1987) also found out that larger companies have

better requirements to wait for the market development than small ones, because of their more diverse investment possibilities.

In his research Teece (1986) pointed out that, in many cases the market is uncertain until a dominant product arrives and creates a mould, that the rest of the market will follow. Examples of such products have been Ford T-model and the DC-3 airplane. After these products arrived at the market, the whole dynamics were altered, and the competition has shifted more to price and other aspects than design. This then creates an advantage for companies that have the possibilities for lower manufacturing costs. Another good example of a late mover gaining advantages of the first mover companies first efforts, is the arrival of Toyota to the market of The United States of America. The leading manufacturer of small vehicles in that time was Volkswagen, so Toyota interviewed American owners of Volkswagens and then altered their cars according to the information they had learned from the American customers' experiences with Volkswagen. (Liebermann & Montgomery, 1986).

2.2.2.3 Shifts in Technology

In his book Schumpeter (1961) called technological progression as “creative destruction”, where the current companies are surpassed by the new innovations that the late moving companies must produce. He stated that late moving firms exploit the discontinuities in technology of the first mover companies and try to take their place on the market by creating products like theirs, but with more advanced technologies. These discontinuities in technology can work as gateways for companies that move on to the market later. Yip (1982) showed in his empirical study of the subject, that in many cases the late movers can gain a first mover like status, when they take the technology to the “next phase.” Scherer & Ross (1990) showed how particular companies were able to revolutionize complete industries, even though they entered the market later, with new innovations on existing products and processes. These kind of examples shows the possibilities for late movers, who are slow innovators, but aggressive on the follower market.

Liebermann & Montgomery (1987) pointed out, that it can be hard for the first moving company to predict the threats of innovation in technology, because in many cases the replacing innovation appears whilst the former technology is still growing. These kinds of replacements have happened for example in the locomotive industry in United States, where the

manufacturers were too slow to react to the invention of diesel. (Cooper & Schendel, 1976). Foster (1988) use the American Viscose's fall, when they did not realize the potential of polyester and how it replaced rayon, as an example. This phenomenon is closely related to incumbent inertia, which will be upon closer inspection in the following chapter.

Abell (1978) pointed out that it is also important to take in to consideration, that customer needs are always under duress and changing, which creates opportunities for late movers to enter the market with their products, if the pioneer company is incapable to react to the changes in the market and customer needs. Until the late 1974 Docutel, the first entrant company of automatic teller machines, had basically 100% of the market share in the United States, but over the span of four years the market share was diminished to less than 10%, because of the new entrants on the market, who delivered newer solutions, that were more accustomed to the customer needs. (Abell, 1978).

2.2.2.4 Incumbent Inertia

One part of the disadvantages by the first mover company, is the incumbent inertia, which are the forces that may cause problems from the company's own inside. (Liebermann & Montgomery, 1987). These inertias have three separate root causes, that are: The company's investment in specific type of assets, the company may feel that new innovation could cannibalize their own existing product lines or the organisation may become inflexible and unable to answer to the changes that are required to function on the market. These kinds of factors rise from the inside of the organisation and may reduce the possibilities how the company can adapt and survive in the environmental challenges in the market. (Liebermann & Montgomery, 1987).

In his research paper, Tang (1988) highlights that in many cases incumbent inertia may be rational and profit maximising approach that the company takes and not only resistance from within the company. He uses the example of steel production in United States in 1950's and 1960's, where the companies had already realized that basic oxygen furnaces would replace the older open heart furnaces, but because the companies had invested large sunken costs to the older technologies, were they unwilling to change their whole company's economics radically. Rather the companies continued investing to the older technologies and on the side to the new technologies, which allowed them to "harvest" on their old investments. (Tang, 1988).

Liebermann & Montgomery (1987) state that it is important for the companies to evaluate how much it will cost to convert the company's existing assets to alternative usage, and based on this evaluation, they must make the decision on how much they will invest in the older technology and to the new technology. The balance must be appropriate between the investment and the cost of the change.

Important part of the incumbent inertia is the cannibalisation of own products. The companies may be reluctant to invest large amount to R&D because the new innovations could reduce the sales of the companies already existing products. (Liebermann & Montgomery, 1987). In his research Arrow (1962) pointed out that the pioneer companies that have gained a monopolistic-like status on the market, are less inclined to invest in R&D and innovate new products or services, that the new coming companies. This phenomenon is largely connected to the idea that the pioneer company would feel that the new product lines would cannibalise their already existing products. Good examples of these kind of situations are Xerox's reluctance to innovate, because of their status achieved by their patents, or IBM's market leadership and why they were not investing in computers as much as they could have. (Liebermann & Montgomery, 1987). In her research paper Conner (1987) stated that in many conditions, the best strategy for the pioneer company is to develop an improved product, but delay its launch to the market, until the company is challenged by the newcomers. This way they can take the maximum profit from their original product but are also prepared for the new situation on the market.

Even though in many cases the inertia may derive from strategical approach and decisions made by the company, often it is also a result of the company's own limits, such as organisational routines and standards, internal politics or the development of relations with other organisations. (Hannan & Freeman, 1984). In many cases it is the company's own structure that eludes it from innovativeness and development of their products and services. For example, for the mayor chip producer in the United Kingdom, it took five years to realize a completely new and growing market sector, women and children buying from supermarkets, because they were so focused on their old mentality and segment of business, selling chips via pubs for older gentlemen. The competitor took advantage of these five years and solidified its status on the market, by recognising the shift of the buying force on the market. (Bevan, 1974).

3. Methodology

In this part the methodology used in this study's empirical part will be described. First the research objectives and level of analysis are clarified, to build the methodological foundation. The selected methodology for this study will be described from the more general to the most specific choices, by opening the philosophical stance of the research. Afterwards the research design and approach are justified, before of the description of the data collection method. This part also includes a brief discussion of this study's validity and reliability.

3.1 Research task

As already described in the introduction, the purpose of this study is to find general idea about the first mover advantages in the field of shared mobility services and to provide the companies guidelines in their expansion plans, by understanding which sort of markets are the ones that the companies want to expand as a pioneer and which markets to expand as the late mover company.

3.2 Research Philosophy

Saunders et al. (2007) explain research philosophy as a system of beliefs and assumptions about the way how knowledge is interpreted and developed. More precisely explained, it is the very act of creating a profound knowledge and understanding in a specific field. Saunders et al. (2007) also point out that weather the researcher is aware of it or not, he or she will always make assumptions based on the sociological and cultural elements that affect either the research objective or the researcher him or herself. In this study, it must be acknowledged that the researcher is a citizen of the same city where the companies that are examined operate and demographically fits the to the customer segment that is the largest for these companies offering their electric scooters.

Saunders et al. (2007) divide qualitative research in to five different approaches that the researcher may position him or herself. These five different research positions are: Positivism, critical realism, interpretivism, postmodernism and pragmatism. Positivism takes the philosophic view of a natural scientist that observes social situations to create laws that can be

generalized. Critical realism tries to explain what people see and experience by underlining the reality that is behind the observed events. Interpretivism highlights humans need to create meaning for their actions and tries to separate human behaviour from physical phenomena. Postmodern approach emphasis the role of culture, language and power relations with the intent to challenge the common accepted ways of thinking. Pragmatism is the view that argues that these different philosophies are only relevant if they support action. Reality matters in pragmatism as practical effects more than in ideas. (Saunders et al. 2007).

In this research the research philosophy is most related to pragmatism, that is really focused on reality and combines views from many different philosophies. The goal of the research is to answer the research questions, not only from a certain point of view. From an academic perspective the rapidly growing and highly competitive electric scooter services market space hasn't been researched. However, first mover versus late mover advantages have been researched previously widely. Therefore, it is very interesting to find out how these advantages apply on the electronic scooter rental market. From a managerial perspective, this research will provide the companies some actual guidelines and help in their expansion processes. Because of these points the researcher believes that pragmatism is the most fit research philosophy for qualitative research with this kind of research questions and goals.

3.3 Research method

Interviews are arguably the most used way of collecting data in qualitative research. Saunders et al. (2007) define interviews as purposeful conversations either between two people or between multiple people. These conversations can be used for reliable and valid data gathering to answer the research questions and to fulfil the research's objectives. The decision to select interviews as the data collection method for this research was made mainly because the examined market is still rather new and there is not much documented data on it and to target the companies representatives, who have the better understanding about the expansion process within these companies, rather than the customers of these companies. Had it been selected a survey distributed to the customers; would it have changed the research in a major way. The interviews provided profound questions and insights of the businesses that could not have been established in a questionnaire.

3.3.1 Choosing semi-structured interviews as a research method

Both shared mobility services and first mover advantages have been discussed earlier, in the section two, and these construct the theoretical framework for the study. It is particularly interesting to find out how these companies have gained advantages from the different entry times to the market, in the shared mobility services area. Semi-structured interviews will be used as the primary research method in this study. According to Longhurst (2003) there are basically three types of interviews: structured, unstructured and semi-structured. Structured interviews follow a predetermined and standardised list of questions, where the questions are always asked in the same order and manner. The opposite of these kind of interviews are unstructured interviews, where there is no pre-set order and the interview is mainly directed by the person being interviewed. The semi-structured interview sits in the middle of these previous two, where there is a basic structure for the interview to some extent, but the interviewer allows the conversation to go into directions that were not originally planned. (Longhurst, 2003). The semi-structured interview method was chosen in order to collect good and prospering answers by the interviewees, but also to ensure that the most important questions, for this particular research will be covered in amidst the interviews. In comparison, had the study used a structured interview method, could the interviews have stayed short, or with unstructured interviews, there might have been a danger of not covering the subjects important for the research in hand. As there are four companies in the respected field of business in Finland, the decision to interview all the companies was chosen as the best alternative and luckily all the four companies were reached for the interviews.

Primarily four interviews were conducted, where the researcher interviewed representatives of all four companies operating in Finland. Later, couple of additional interviews were conducted to provide more specific details about the changes in the market. These additional interviews were targeted to the people that were already contacted in the first round, and these interviews provided good insights about how the market had developed during this research. Other of these additional interviews was held on the phone and other via email. These additional interviews were also able to take interest in specific detail, because the interviewee was already engaged in the research and had given some data previously.

3.3.2 Collecting data with a semi-structured interview

As mentioned above, interviews with all the companies operating in Finland, was a good way to ensure the reliability of this research. The companies differed in their respected sizes, but still were treated as equal in the research as all companies provided good insights and views of the market examined. All the interviewees were informed before the interview what the research is about and what are the mayor questions driving the research. Had it been asked all the interviewees would have been provided with the predetermined list of questions. Only one of the four interviewees asked to see the questions before the interview, and that person was provided with the questions. Interestingly enough, that interviewee's responses did not differ largely from the other three, even ought the person had been given time to think about and pre-formulate the answers.

Two of the interviews were held in person in Helsinki, one interview took place in Skype and one on the phone. Later during the year, two of the interviewees were contacted again in order to ask complimentary questions and collect some more insights for the research. One of these interviews took place on the phone and the other was handled via email. All these interviewees were asked if they preferred to be interviewed in person or on the phone to offer flexible options to choose from and to offer an option that would fit their schedule. The interviews did not have a noticeable impact from any of these ways of communication. All interviews took place as pleasant and natural conversations and the participants shared their insights with interest in the future results that arise from this research.

The following table below will illustrate the interviewees

Interviewee	Position	Education	Time of service
A	Operations manager	Bachelor of science in business and economics	Three months
B	Operations manager	Bachelor of science in business and economics	Two months
C	Chief executive officer	Master of science	Six months
D	Operations manager	Bachelor of science in business and economics	Three months

Table 1. Table of the interviewees

3.4 Study design

3.4.1 Companies

There are currently four different companies offering shared mobility services in the form of renting electric scooters for short term rentals, in Helsinki. The four companies are: Stockholm based VOI, TIER from Berlin, local Hoop from Helsinki and the American Lime Scooters. According to Iltalehti (Internet source, 2019) VOI was the first one to launch their service in Finland, followed by only three days with TIER and shortly after Hoop came to the market. The Finnish tabloid IS published an article on 18th of March when VOI started its operations in Helsinki. (IS internet source, 2019). The American company, which is by far the biggest of these four, Lime Scooters, entered the market couple of months after the initial rush to the streets. TIER and VOI also share some other cities in Finland, such as Tampere, whilst the other two companies, Hoop and Lime, have only launched their service in Helsinki.

3.4.2 Market areas

According to the companies respected websites, all four of the companies operate in Helsinki, which is the only city in Finland for Lime and Hoop. Both VOI and TIER operate in Turku and Tampere besides Helsinki. VOI is the only one of these four companies that does not openly tell all its locations online, but one can find VOI scooters on their app from Turku and Tampere. According to the four websites there are no other cities at this moment that would host electric scooters as a shared mobility service at the point of the research, but all the websites have a tool, where customers can suggest new sites for the companies.

3.4.3 Research design

Saunders et al. (2007) state that research design helps the researcher and provides a framework for the process of collecting and analysing data. The design guides the researcher, as he or she has chosen a certain method, and provides the best structure for the research, that depends on the purpose of the study. (Easterby-Smith et al.2012).

There are different research designs that are usually divided to three different categories: Quantitative, qualitative and mixed method. The biggest difference can be seen in the data that they produce. A qualitative research method was decided for this research as qualitative research produces usually non-numeric data, whereas quantitative researches produce data that can be viewed in numbers. For this research, as there is only a limited number of electronic scooter companies, a qualitative research method applied best for this research. Mixed method is a mixture of these two different methods that can produce both numeric and non-numeric data. (Saunders et al. 2017)

For researches with deductive approaches that focus on using data for testing of hypotheses, the more common method is quantitative research, where the relation between two or more variables can easily be assessed. In quantitative research the hypotheses are based on previously known information, and then the gathered data can be tested if it follows the rules provided by the previous research. According to Johnson & Onwuegbuzie (2004) both quantitative methods and qualitative methods have their strengths and weaknesses. The researcher duo state testing and validation of previously constructed theories as a strong fit for quantitative researches. Also, the data collection is usually less time consuming, because it can be more standardized, and the research results are usually not so dependent on the researcher. As there was enough of time to collect the data for this study and time was not limited, a qualitative research method applied better for this research. Johnson & Onwuegbuzie (2004) also acknowledge the weaknesses of quantitative researches; standardized data collection may affect the respondents answers, the respondents may not possess enough information on the subject at hand, and the structure may cause the research to operate on a high level when it might lose richness in answers and subtleties in the results. As it was important to collect data that would consist of rich answers that could be later analysed thoroughly, a qualitative research method was chosen for this study. Also, here as there is only a limited amount of companies operating in the electronic scooter field, it was important to collect as rich data from the respondents that work in this particular field.

The qualitative method is more commonly used in researches that take more of an inductive approach to the development of theories, but also many qualitative researches are abductive by nature. One of the biggest differences between qualitative and quantitative researches is the data collection, that in qualitative is usually not as standardized as in quantitative research. Also, the researches often have a larger role in qualitative research. (Saunders et al. 2017). According to Johnson & Onwuegbuzie (2004), qualitative research is best fit for researches that focus on

a limited number of cases in particularly profound depth and can explain complex problems in specific details. This was particularly important for this case as stated earlier, there are currently only a few companies that operate in this field and can be studied in depth. Also, qualitative research method was chosen as it suits well for cross case comparisons and analysis, whilst it allows responsiveness to the possible changes that may appear during the research process. The downside of qualitative research includes the difficulty to reproduce the results with other test groups and occasions or creating profound generalisations that would be easily confirmed. The credibility of a qualitative research can be challenged more easily than quantitative research's, because it is always dependant on the specific research situation and may not be duplicated. Also, in qualitative methods the data collection takes usually more time as well as the data analysis, that can be influenced by the researcher's own personal ideas and biases. (Johnson & Onwuegbuzie, 2004). Like stated earlier, luckily time was not a limiting factor in this study and therefore a qualitative research method suited better.

Another option for a research design, rather than quantitative or qualitative research, is a research with mixed methods, which combines elements from them both. (Johnson & Onwuegbuzie, 2004). The strength of mixed method approach is that it can take the strong suits from both approaches and answer to a more complete range of research questions and it can overcome some of the weaknesses in qualitative and quantitative researches. On the downside, the research is usually more time consuming and may require a research team instead of just a lone researcher. (Johnson & Onwuegbuzie, 2004). A mixed method was not the best option as the aim was to study the people that work in the companies. For example, if the aim was to study both companies and consumers, a mixed method would have been an option.

To sum it up, a qualitative approach was chosen for this research, because the target of this study is to understand the current phenomena in detail and project it to the previous literature at hand, rather than formulate broader hypothesis. The researcher believes that in this study, the qualitative approach provides the best possibility to answer the research questions in the research's empirical part. It was taken in to consideration to carry out the research in quantitative method or in mixed method, but had quantitative approach been chosen, the research would have had an input from the companies operating in the field of business in Finland and in this case, it would have not been enough, or the research would have not answered it's research question if the survey would have been targeting the consumers instead of the companies. Mixed method could have provided good insights but taken into consideration the time limits and the researcher's experience with qualitative research, the decision was made

in its favour. Also, the purpose of the research is to understand the advantages and decisions within these companies and to create suggestions on this phenomenon to the companies, a research with qualitative approach is well suited, because it can produce detailed data and more complex answers to the companies now in the market and to the other markets that may have similar aspects in future.

Bell & Bryman (2018) list five different types for research design, which are: Experimental design, cross-sectional design, longitudinal design, case study design and comparative design. In this research the selected design to follow was chosen to be cross-sectional design. Typically, in cross-sectional design, the researcher is interested in multiple cases and the causalities between them. All the data collected for the research is analysed simultaneously as it is gathered from multiple sources, which means that research's with cross-sectional design study phenomena at a certain point on a timeline. On contrary, in longitudinal studies, where the research period is given a fixed time period, the time period may function as a tool to measure changes and actions. The researches with cross-sectional design can be considered as a snapshot in time of the studied phenomenon. (Saunders et al. 2007).

In this research, it is interesting to find out all the companies operating in the field of business and that, which excluded the case study. It was also assumed that the companies do not differ in their basic nature, so that excluded the comparative design. For this research to understand the advantages obtained during the different first versus late mover periods, it was not required to observe a longer period, so the selection of cross-sectional design suited the research well.

3.5 Analysis method

Saunders et al. (2007) define two mayor approaches to qualitative research's data analysis. Those two approaches are inductive and deductive approaches. In inductive approach, the process of the analysis gets started without a framework and after exploring the data, it is examined which patterns and themes appear. In this type of approach, the data is being analysed simultaneously with the collection of data, so the earlier collected data will affect the latterly collected data. In deductive approach, there is a fixed framework for the data analysis, that keeps directing the analysis into the desired direction, because the main variables, themes, components and issues are informed by previously existing literature on the matter. (Saunders et al. 2007).

On top of the two separated approaches to qualitative research's data analysis, Saunders et al. (2007) categorise different techniques for analysing qualitative data. These techniques are: Thematic analysis, template analysis, explanation building and testing, grounded theory method, narrative analysis, discourse analysis and data display and analysis. In this study the technique most used with the analysis was thematic analysis, which according to Braun & Clarke (2012) is a method of systematically organising the data set and providing insights that are reoccurring themes across the data. In this technique the researcher tries to focus on finding a meaning across the whole data set and providing meaningful generalisations. This technique allows the researcher to focus on finding the meanings across the whole gathered data, and to see a broader view, which can then be organized to more specific insights. In this research, the researcher tried to combine all the data from the interviews, with the previous research and well-known public data, to create to whole picture and the most prolific results.

This research includes elements from inductive and deductive approaches, which makes it an abductive approach. In their study, Dubois & Gadde (2002) showcased how abductive approach can give wider results than just inductive approaches, and that its well fit for a case study. The researcher wanted to create a fixed framework, that would be followed, for the research, but due to the schedule of the research, the interviews were made simultaneously with the theoretical framework. This created a situation where the fixed framework was not ready before the interviews started, but in the end the researcher believes that this approach with elements from both approaches was eventually profitable for the research, because the first interviews gave good guidelines for the theoretical background. Also, the latter interviews were more focused on the important questions for the research, because the researcher had modified his theoretical approach after the first interviews. This fits well with the Saunders et al. (2007) statement that in inductive gets analysed and altered simultaneously with the theoretical structure is being formed.

According to Basit (2003) analysis is one of the most crucial aspects of qualitative research and can also be one of the most difficult faces. The lack of mechanical and technical exercises can make the process somewhat unorganised and because most researchers analyse their own data, there are many ways to analyse the data. In her paper, Basit (2003) explains why coding is a useful tool in process of analysing qualitative researches' data and why coding has so important role in data analysis. In coding, the researcher categorises key elements of the research, and monitors how many times and in what context these categories arise in the qualitative research. This helps the researcher to compare across data and ask questions that are relevant for the

study. In this research, the researcher used coding as a tool to analyse the gathered data. These codes were also used as guiding themes by the researcher, to analyse and divide data. The coding categories and the results are portrayed in the latter section of this study. The coding process was used in this study to calculate the occasions certain topics were part of the interviews, but also to help the researcher to formulate a clear structure of the most important aspects and topics, that can be linked between the theory and the interviews.

3.6 Validity and reliability

When conducting a research, it is also important to consider the research's validity and reliability and how they fit the chosen research method. According to Golafshani (2003) validity in qualitative research is described by a wide range of different terms and there is no single concept that has solidified its position as the universal concept. Golafshani (2003) also states that in some instances, researchers have argued that there is no place for validity in qualitative research, but still look for qualifying check for their respected research. Bryman & Bell (2011) described validity as a measurement for what the research is supposed to measure. The validity for this research can of course be questioned since qualitative research is always a subject for interpretation, but as the research operates in a completely new field of business and the interviews contacted all of the associated companies in Finland, the research can be seen as a validated research.

The form for the interviews used in this research was self-developed with the help of this research's supervisor Saara Julkunen. The questions were carefully formed around the main highlights from the theoretical basis of this research. The form had some repetitive questions to ensure that the semi-structured interviews would answer to the questions that were seen important for this research. The people interviewed represented all the companies that offer electric scooter rental services in Finland and this is good validation for this research because no companies were left out of the research. To ensure the interview concerned only the shared mobility services and the use of electric scooters as the method of transportation, no previous background of the interviewees was taken into consideration in the interviews.

3.7 Researcher's role

As a part of objectivity of a research, it is an important discussion to take into consideration the researcher's role in relation to the research target at hand. It must be stated that the researcher has worked in proximity with companies that provide their services via applications, because the researcher works for a company that offers payment gateway services for such companies. Because of this the researcher has read a lot of articles and information surrounding these businesses, beyond the point that can normally be studied from the course materials or textbooks. Because of this the researcher has preconceived ideas about how businesses operated almost completely via applications work, which makes the researcher more exposed to the information that was gathered during this research. However, the researcher does not believe that his presumptions have altered the results gathered in this research, on the contrary the researcher's investment in the type of business can have taken the research more directly to the direction it needed to get the results. While knowledge on the field of business may increase possibility of bias, it can also help to provide more accurate data and relevant results, when all the information is filtered by the researcher's previous knowledge and reality check.

It must be stated also that the researcher himself is a customer and a fan of these companies, as well as other modes of shared mobility services. During the research, the researcher tested the services of all the companies involved in the research, but during the interviews, the researcher tried to position himself as a person without a clear opinion on the services. All the interviewees were pleased to participate to the interview, but the researcher did not have personal ties to the interviewees.

4. Empirical findings

In this section the findings of the qualitative research will be demonstrated with the empirical analysis answering the research question related to the study.

4.1 Presentation of the analysis and findings with the help of research question

Coding was used in this study to help dividing the gathered data into smaller sections and to help identify the themes that were the most frequent in the interviews. The researcher created a frame for coding that divided the most important themes into five different categories, that each had three subsidiary categories. These categories were based on the key elements of first mover advantage theory and the unique features of the electrical scooter rental businesses, that were identified by the researcher. In the following sections these categories with their outcomes will be presented, and the findings of each category will be analysed.

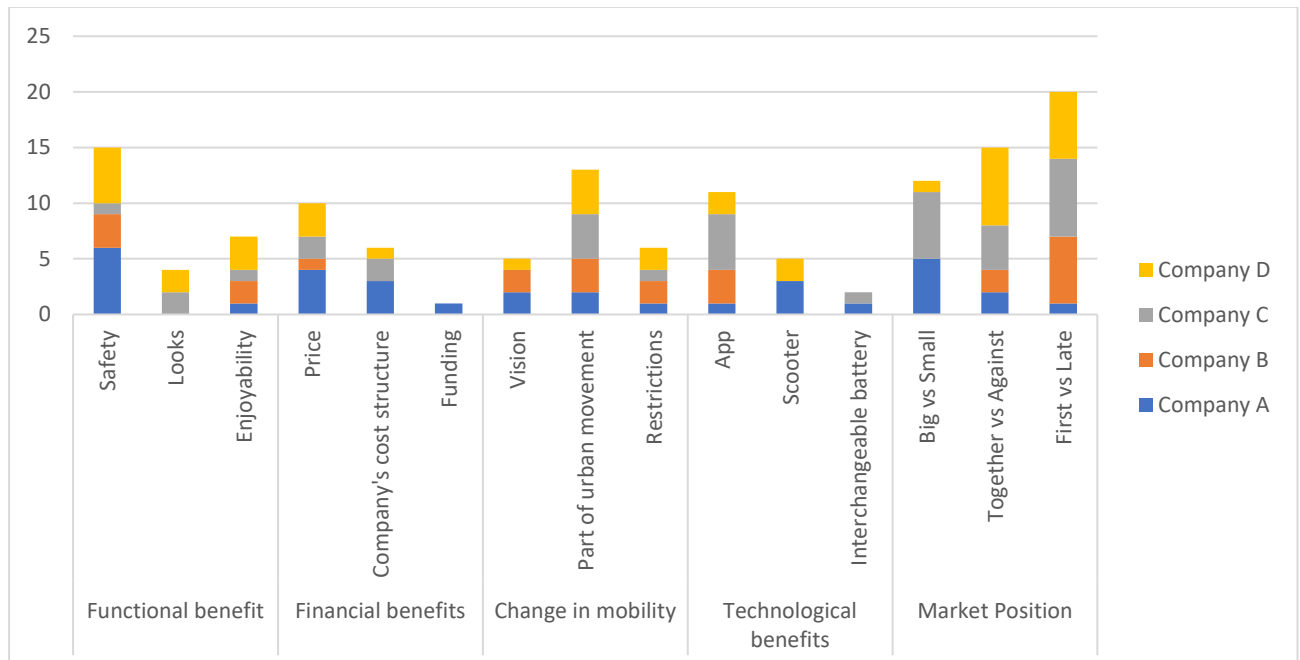


Figure 2. The data from the coding process

The figure 2 presents how frequently the different categories and subsidiary categories were present in the interviews. Most frequent category was the market position category, what is very understandable, considering the nature of the research. The financial benefits were the least

frequent category to rise to the chart, what is also understandable, because the interviewees are understandably not that eager to speak about their companies' funding and financial processes. The pricing subsidiary category had more than half of the times, the category was present in the interviews. All these categories and subsidiary categories will be presented in more detail, in the following section of the research.

4.1.1 Functional Benefits

One of the categories for the coding was functional benefits, that had the three subsidiary categories of: Safety, looks and enjoyability. These themes were chosen by the researcher because they rose many times in the interviews and they were essential themes on how these different companies can differentiate themselves from their competition. All the interviewed people listed safety over looks and enjoyability, and the theme of safety was frequently lifted in the conversation. Safety was also listed as more important than the price of the service, which is a subsidiary category for coding in the financial benefits.

” I would say, that when the customer takes our board, he or she can be completely sure, I mean one of our benefits is that we invest really much into the boards being in a safe and in good condition. That is in my opinion the most important point.” (Free translation)

- Representant from company A

Safety was the second most frequent theme that rose in the interviews and it was part of all the interviews. Business wise it is understandable for the companies to endorse safety, because accidents can have negative effect for sales figures, and for new companies, it could be disastrous if their services would be restricted because their lack of detail regarding safety issues. Many times in the interviews, the topic of electric scooter accidents rose in to the conversation, and whilst the companies acknowledged, that usually the accidents effected the market as a whole, they all emphasised, that they did not want to read news where the cause of the accidents would have been the lack of maintenance or the bad conditions of their respected boards.

The importance of looks was interestingly a theme that divided the interviews. Companies that had been the early ones on the market, did not emphasize looks at all and in their respected interviews, looks did not rise to the conversation at all. However, the two companies that had had a later entry to the Finnish electric scooter rental market, both talked multiple times on the importance of the looks of the boards and of the application.

” Well the looks and recognising the boards from the scenery, is where we need to improve.”
(Free translation)

- Representative of company C

The fact that the companies with the latter entry to market emphasise the looks and the overall recognizing from the scenery, goes well along with the theory presented earlier in this research. Liebermann & Montgomery (1987) presented the switching costs, that usually the pioneer company can avoid, but the later entrants will face in many situations. With the looks and the appearance situation, it is understandable that the later entrants have to be more visible and easier spotted from the scenery, in order to “lure” the customers to use their products, instead of continuing using the companies services, that they had already earlier used.

The enjoyability aspect of the boards was one of the subsidiary categories for functional benefits used in the coding process, and it rose quite evenly in all the interviews, but not in the same fashion as the safety aspect.

” So that the people are left with an experience, after the first time, that okay, I want to ride again. It is a sum of multiple things, but it can’t just look beautiful and feel good, the customer also has to feel safe.” (Free translation)

- Representative of company D

As mentioned earlier, it is understandable that these companies want to highlight the safety, because it is important also for their business case, but the researcher got a feeling during the interviews that the enjoyability aspect got overrun by the safety aspect. Meaning that all the

companies valued comfortability and enjoyability but wanted to make sure that the safety aspects are taken more of a notice.

” When you read these articles in the beginning, the articles only talked about electric scooters, electric scooter accidents, or that the electric scooters were blocking the sidewalks, so in a way, even ought that they would hypothetically been only our boards that would have caused the harm, the harm would have affected other companies as well.” (Free translation)

- Representative of company A

The safety perspective also affected the way the companies saw their cooperation between each other, as illustrated in the quote above. Specially because the whole market is in such an early stage and all the companies are growing the market together, safety issues could harm the whole market, not only a specific company. This is an interesting notice taking to an account that these companies are competitors in the market but feel that they are working towards a common goal in terms of making the electronic scooter rental market, a viable part of urban movement. Both aspects will be examined more thoroughly in latter part of this section.

4.1.2 Financial Benefits

Other chosen category for coding was financial benefits. This category also had three subsidiary categories that were: Price, company’s cost structure and funding. These subsidiary categories were chosen by the researcher, because of their frequent appearance in the interviews and because they are important for companies that are trying to conquer market share in the early stages of the respected businesses. From these three subsidiary categories, price was the most frequent, as one should expect, but all the interviewees repeated that the price of the offered service, was not seen as important factor as one could anticipate.

“ At this point, because we are talking about cents, well if you drive a really long trip, then you can notice the difference [in price], but if you drive for a couple of minutes, you don’t really

notice the difference in price, because it's not going to be so big. So, at this point we haven't really had to compete with price." (Free translation)

- Representative of company B

All companies had a quite similar pricing structure for their service; All companies charge by the minute and add either a starting fee or a parking fee on top of the minutes charged. Some companies had also introduced parking spots or zones, that when used by the customer, he or she gets a discount in price. These parking areas and spots make it easier to control the boards for the company and keeps the city more organised, therefore the discount does not play the mayor role from the service provider's perspective.

"We have certain qualities, like the parking in designated areas, that we try to affect our customers in a positive way, so that they would like to use our service. The customer gets financial benefit, but it also keeps the city tidier, so we have experienced that people primarily want to behave well and we try to support them to do so." (Free translation)

- Representative of company C

In the interviews it also came up that the companies had prepared themselves for a stronger battle with the prices of the services, but at least at this point the price had never been the most important aspect of convincing the customers.

"The price, we expected that it would have more of an effect, but it has been surprisingly insignificant factor in the competition." (Free translation)

- Representative of company C

According to the previously presented research of Liebermann & Montgomery (1987) in many cases the first movers can dictate the price of the offered goods and services, but when late movers enter the market the competition usually bring pressure to lower the prices, either by the pioneer company or by the newcomers. The electronical scooter rental business is still

respectively young and the experiences the companies have suggest, that at this point most of the competition does not happen in the pricing, as most of the companies have a very similar pricing model as well as the prices themselves.

Later during the year, one of the companies provided its customers with a different pricing option. This option was available for the customers as an option for the pricing that is based on the minutes, and it was based on a monthly subscription fee. The customers could choose if they wanted to pay a monthly fee that allowed them to use the electrical scooters as much as they wanted in rides that took less than 15 minutes. The interview with the company's person took place before this pricing model was introduced, but the researcher reached out later to the interviewee to ask more definitive questions about the new pricing model and also about some points on visibility and how the market had shifted after the arrival of more companies to the market scope.

“As an experiment, the new pricing model was a very good success. We got visibility and new customers with this experiment. We still have to see how we can implement this model in long run, but we got good experience and data from it.” (Free translation)

- Representative of the company with the new pricing model

All the four companies have been less visible in the street view of Helsinki during the winter months and the marketing activities have also been less frequent. Some electric scooters were still on the streets, but in noticeably fewer quantities than during the summer and autumn months. In the early 2020, when companies started sending out their marketing emails for the new season, the researcher noticed, that one other company had begun to offer their clients an alternative pricing method, that was based on monthly payments, similar to the one introduced by other company in Finland earlier in autumn. This is concrete evidence of the free rider effect advantages, introduced by Liebermann & Montgomery (1987), that the late moving companies can exploit, when there are no real technological advantages to overcome, but simply following the lead of the pioneers and fixing the pricing model.

When the market gets more mature and stable, these kinds of different pricing models and other service models can evolve into a more demanding status. Liebermann & Montgomery (1987) showcased in their research that in the early stages of the new market, the companies are

competing for new customers and getting a share of the market segments, but when the market matures, then the shift is usually towards serving a more specific market segments. This kind of pricing can be a great way to differentiate from competitors, if the company can keep the pricing sustainable. Also, as Liebermann & Montgomery (1987) stated, with these new pricing and service models, the other companies can learn from the pioneer's experiments and tests and use the late mover advantages of free rider effects.

The second subsidiary of the financial benefits category was company's cost structure. This subsidiary category was selected by the researcher, because the theme is frequent in the theory part of the first versus late mover advantage theory. As stated above, usually by pre-empting the scarce assets a first mover company can gain benefits on the market, or the late mover companies can replicate the same business as the first mover, but with more profitable cost structure and gain advantages through that. (Liebermann & Montgomery, 1987). This theme rose frequently in the interviews and the interviewees agreed that the key to be successful in the market, was to adjust the company's own cost structure. This goes well in hand with the fixed pricing model of the services in Finland, because when the prices are quite fixed, the companies must find their margins by reducing their own operational and functional cost structures.

“Our most important advantage, in my opinion, is our operative sharpness. So that our boards are in top shape, in better shape than the competitors, they are of great quality and secure, and the way we handle our business, is that we are super-efficient with our capital.” (Free translation)

- Representative of company A

The third subsidiary of the financial benefits chosen by the researcher, was the funding of these companies. To the researcher's big surprise this topic was present only one time in one of the interviews. With the importance of the cost structure and the fast-growing nature of the market and business model, the researcher assumed that this topic would have sparked more conversation with the interviewees, but the reality proved vice versa. The one time company funding was taken in to the conversation, it was linked to the previous theme of being efficient within the costs inside the company and its processes, when the representative told that it is a

vital part for their business, because the company had not received grand funding as some of their competition had. In their respected research Liebermann & Montgomery (1987) pointed out that funding can be an effective tool for companies to invade market that has been already occupied by the first mover companies, but also that the first mover companies can protect their position with channelling their funding to research and development, and with good advances in their products and services, prevent the late mover companies' actions to take over the already existing market. Because of these takes in the literature and research, the researcher assumed that the interviewed companies, would have placed more importance on the funding question.

4.1.3 Change in Mobility

Third category for the coding process was change in mobility, that was introduced, because all companies in this market are offering a new way of mobility in urban areas. In the theoretical part of this study, the shared mobility services were introduced, with a heavy influence from Cohen & Shaheen's (2018) research and literature. These kinds of services provide a new way of urban movement and business possibilities and was therefore chosen by the researcher to be examined in the coding part of the research. The change in mobility category was divided to three smaller subsidiary categories that were: Vision, part of urban movement and restrictions.

All interviewed people shared a common vision about how the electric scooter rental businesses are going to be a constant piece of urban movement in the future. The vision was also quite homogenic amongst the interviews. No interview saw a possibility that these kinds of services would not continue in the future, even ought one company had had to stop functioning in other service market area, because of the juristic restrictions. These companies and business models are here to stay and to become more integrated to urban movement possibilities.

” My own vision is that, cities are made for living – free from noise and pollution. It should be easy choice to not own a car and to not take short cab rides in the city.” (Free Translation)

- Representative of company B

“[Our vision] Is that, people would use these [scooters] and they would be part of the city’s traffic infrastructure, a natural part of it. In a same way, how bicycle lanes are planned as a part of cityscape, so electric scooter would have a specific part, and I don’t mean that they should have their own lane, but that they would be notified as a part of the city’s traffic.” (Free translation)

- Representative of company C

All visions that were asked from the interviewees, included the idea of reducing car traffic in city centres. Cars were not seen as direct opposition for electric scooter rental businesses, but the common goal seems to be reducing emissions caused by cars. This idea is in a direct correlation with Shaheen & Cohen’s (2018) literature and the environmental view that was introduced in the theoretical part of this research. The green aspect is well integrated into the message and the marketing story of all companies that offer services in the shared mobility services market.

The visions that these individuals and their companies possess are were much aligned with the second subsidiary category for coding inside the change in mobility category, that was part of the urban movement. These companies believe that the service they offer is going to change the way people move in city centres and they all drive to make these services more integrated part of the urban movement possibilities.

” Change mobility for good. In my opinion it would be really good, that there could be less cars in cities, and that people would move with transportations, that wouldn’t really have any negative effects. So that everyone could live in urban environments more comfortably, and the transportation would be fun, sustainable and better than when you drive a car. So that would be really cool. This is my own personal interpretation of our company’s vision.” (Free translation)

- Representative of company A

The third subsidiary category of change in mobility, was the restrictions that these companies face, while operating their businesses. One of the companies had started their business in a market that had later forbidden the whole concept in that respected area. All of the companies

had also faced some sort of restrictions in Helsinki, but these restrictions had not come as a surprise, because these companies and others had premiered the service model in other cities in Europe, so the restrictions, such as driving on the bicycle lane instead of the pedestrian pavement, were well expected.

” We have had meetings together [with other companies] with the city, where we have laid down the ground rules on how we operate our businesses.” (Free translation)

- Representative of company A

All the companies told openly about the restrictions they have faced and told that the cooperation has worked well, at least with the city of Helsinki, where all these companies have their service available.

4.1.4 Technological Benefits

Fourth category used for coding was the technological benefits, that included three subsidiary categories: Application, the actual scooter itself and possibilities with interchangeable battery. According to the theoretical part of the research, technological advantages are a widely common theme in first and late mover advantage theories and were therefore taken into an account in this research and its coding process as well. The first two are obvious for the companies, because of their important nature for the businesses, being the two aspects that the customer uses when using the service. The interchangeable battery aspect was chosen by the researcher, because it rose in couple of the interviews as a game changing feature for the whole business model.

The application was the most frequent topic of the three subsidiary categories of technological benefits, and it was an important piece in all the interviews. However, in one interview the application was taken into the conversation five times, as in one it was only mentioned once. The companies all agreed that the user experience of the application must be pleasant, because it is the first thing the customer sees as a part of using the service.

” We emphasize that the whole user experience has to be as good as possible, from the moment the customer opens the application, until the end service.” (Free translation)

- Representative of company D

It can be also noted that the companies that prioritized the looks and the visibility of the service, in the previous category of functional benefits, also prioritized and advertised the importance of the application than the other companies. Important to this research it also tells us that the companies with the later entry to the market emphasize these aspects more, which is in line with the theoretical part, where Liebermann & Montgomery (1987) and Schmalensee (1982) portrayed that due to switching costs and under buyer choice uncertainty, the late mover companies have to invest more time and financial effort to differentiate themselves from the pioneering companies, that have entered the market first.

The second subsidiary category of technological advantages was the scooter itself. The result in coding was clear to divide the interviewed companies into two different camps, where in two of the interviews the qualities or differences in the scooters did not rise to the conversation at all, but in two conversations these subjects were present on multiple occasions. The interesting part of divide is that the two companies that kept promoting the importance and good qualities, also told that they had produced the scooters they use, with a partnering company, just for their own usage. These two companies also knew to tell that there are some generic brands used widely on the market within other countries. It fits well into the theory that the companies that have produced their own product, also want to market it as a benefit, that their customer will gain, when using their service.

” We started in the beginning with the same board as the others, that are made by [company name], those are really popular and many other electric scooter firms use them in the beginning. But, as you have probably noticed yourself, it is a pretty light board, compared to the board we use nowadays. So, now we have quite big of an advantage, that we, simply put, just have a better board.” (Free translation)

- Representative of company A

The third subsidiary category for technological benefits chosen for the coding and further examination was the interchangeable battery. The researcher wanted to include this aspect into further examination because it again divided the interviews into two completely different teams, in other side this subject was completely disregarded and it had no part in the interviews, but on the other side it was seen as the a focal point in development in the market.

“It has been speculated, that boards with interchangeable batteries, will emerge soon. Well everyone is speaking about it, but at this moment, no one has been able to carry it out effectively.” (Free translation)

- Representative of company A

In the research of Liebermann & Montgomery (1987), technological leadership is one of the most important advantages that the first mover companies enjoy, and in this research the question of interchangeable batteries is a good example of this theory in practice. One of the companies, that told that their funding and company size is not on the same level as its competitors, told in the interview that the interchangeable batteries are one of the features that enables them to operate on such an efficient rate.

“Pretty much, because of the interchangeable batteries and the field operations that rely on them, we can operate with smaller personnel and that is a very clear benefit for us.” (Free translation)

- Representative of company C

4.1.5 Market Position

Fifth category, chosen by the researcher for the coding process, is the market position. This category had three subsidiary categories that included: Big vs small, together vs against and first vs late. Mostly because of the nature of the study and the pre-written interview structure that the researcher had composed for the interviews, these topics were the most frequent ones in the interviews. The questions on the pre-written interview structure had many points that

resulted in almost direct answers to these topics, so it is understandable that a lot of conversation saturated around these topics. Most of the topics for coding appeared multiple times on the coding sheet, and these topics overshadowed other categories.

First subsidiary category of the market position coding category is the big versus small comparison. In this comparison, the researcher wanted to measure how many times the differences in size are taken into the conversation and what kind of aspects do the companies think that are important for the companies, with different sized budgets, competing in the same market. This topic split the interviews into two different camps, where in two of the interviews the topic was referred to multiple times, but in two interviews either one time or not at all. The companies that talked earlier about the effectiveness of their methods as their strength, also kept this topic more important than the other companies.

“Our chances [to be the biggest in Helsinki] are not realistic now, but we can still be a relevant and widespread enough service for our own customers, so we have to find our own sector, where we can be better. So, with muscles we are not going to win this battle, for at least a year or two.” (Free translation)

- Representative of company C

In the theoretical part of this research, it is noted many times that companies can gain big advantages from technological leadership and in many cases it can be seen as a competitive edge for a smaller company, that they utilize their technological advances to their benefit, or a large company can invest huge amounts to research and development and gain market leadership through that. However, in the case of electric scooter rental companies, right now the situation on the technological level is quite balanced, as mentioned earlier, so it can be noted that bigger companies have the advantages of spreading their service more out wide with bigger fleets, that obviously require more capital.

The second subsidiary category of market position is the together versus against situation, which was very frequent part of all the interviews and had a close connection to the researcher's original idea of the research and the research question. In their research Liebermann & Montgomery (1987) stated that often companies work together to build their common market, but when the market has reached its maturity, the companies start competing more for the shared

customers. This also divides companies into serving more of a niche segments of the market, therefore creating varied service models. In the interviews, all the companies agreed that at this moment they are all more working together towards urban cities that accommodate different shared mobility services well, rather than compete fiercely for the common customers, but also, they recognised the other companies as competition.

” Well kind a like yes and no. In a way, we all have much in common with other companies, or with our competition, so we all want to create an electric scooter culture and teach people, how are you supposed to use these services, but of course we are competitors. But in a way we all work together to educate people, so they know how and where they can ride these scooters.”
(Free translation)

- Representative of company B

All the interviewees stated, that at this moment it is more profitable to seek new customers than try to convert customers that are committed to the competitions brand, because the market for these kinds of services is still quite new. All the interviewees also acknowledged that in this kind of services, the customer behaviour usually dictates that the customers are not just loyal users of one brand but use the different companies simultaneously. The actual competition happens in situations when there are many different options side by side and the customer can choose the preferred company, rather than in a situation when there is only one scooter available at the customer’s desired location. This subject was also very present in the situations, where the interviewees spoke about the importance of being recognisable and easy to use, so that in those next to each other situations, the customer will choose their service.

“Yes, people do use these services side by side. Maybe there is that, like that excitement of a new thing in the beginning, that people want to try new things when they are launched. So that has helped, of course.” (Free translation)

- Representative of company D

“Per se the customers are not committed to just one brand.” (Free translation)

- Representative of company C

As mentioned earlier in the theory and in the take outs from the interviews, these services are not of a kind that would exclude each other, so the customer does not have to be solely committed to just one company. The competition happens more in situations where scooters of multiple companies are available in one location and the customer gets to choose from one of those. In these situations, the visibility of the services and pricing are taken into more important position.

The third subsidiary category, first versus late movers, of the market position category for coding was the most frequent of the whole coding process and it was a solid part of all the interviews. This of course was natural considering the topic of the research and the questions used for the semi-structured interviews. The whole essence of the research is to examine the advantages and the effects of the first versus late mover status on the market, so the interviewees were asked directly and indirectly, if they had gained benefits from their respected market entry. Overall, all the interviews stated that the late market entry was not problematic, because of the new nature of the business model and the similarity in the offerings these companies had. It can be also stated that overall, the interviewees agreed that the late entrants had gained more help from the pioneers than vice versa, even though the positive first buzz was recognised by the people interviewed.

“Well maybe because they have been on the market here [in Finland] before us, we haven’t faced that many challenges that they have. So that they have kind a like set up a smooth launch for us, which has been very beneficial.” (Free translation)

- Representative of company D

In their research Montgomery & Liebermann (1987) found and listed many vital advantages and possibilities for the pioneering companies, but many of them rely on aspects that are not so easily protected in this field of business, such as; Switching costs, patents through technological advances or pre-emption of scarce assets. In electronic scooter rental market, many of these

aspects are difficult or impossible to protect, but disadvantages of the first mover companies, like free rider effects, incumbent inertia or simply companies with huge budgets entering the market can be exploited by the late movers. That being said, it was clear from the interviews that the market is still forming its shape, and there are enough customers for many companies, so companies can specialize their service for different market segments and operate even through the pressure of the late movers.

When asked about the potential new cities, that the companies are planning to expand their services, the answers between the interviews were mixed. Others emphasized that the competition's positioning does not matter when choosing the cities, others highlighted that it has its weight in the consideration. All the interviewees agreed, that in Finland the possible cities for this kind of services, are quite limited, so probably the competition is considering the same cities across the country.

“If in a small city there is already a competitor, it can be quite useless to go there, but if a competitor operates in a big city, you can consider that city as a possible expansion.” (Free translation)

- Representative of company C

“I would say that, that is not the most crucial factor [if there is already competition], when we think about our expansion, not by any standard. But then on the other hand, here in Finland, there is a limited number of cities, where it is smart to run a business like this. But we want to go to as many cities in Finland as it is smart and offer our service to as many people as possible, so if there is competition or not, that is not really a crucial factor in our decision making.” (Free translation)

- Representative of company A

4.2 Summarizing the effects of First Mover vs. Late Mover advantage

The coding process, with its five categories and fifteen subsidiary categories, provided a solid foundation for examination of the interviews. These categories were examined from the

perspective, that how many times they appeared in the interviews, but also helped the researcher to connect the data from the interviews to the previous research and literature, that was showcased earlier in this research. The coding structure brought interesting points from the interviews, upon further inspection, and helped the researcher with the analytical review of the interviews.

Summarizing the effects from the advantages, the companies have gained from their respected market entry times, show that there are many connections to the literature review and especially to Liebermann & Montgomery's (1987) research. Also, the themes from Cohen & Shaheen's (2018) book, were almost unanimously shared across the different interviewees, that shows that shared mobility services are a phenomenon that is here to stay, and probably going to be more integrated with modern urban mobility possibilities. The restrictions and limitations how these companies will operate in the Finnish landscape, is still forming its shape, because of the fresh nature of the service model, but all the companies share very similar vision of these services future, that include many possibilities to reduce carbon emissions.

The year 2019 was the first year that these companies had operations in Finland and in Helsinki. The companies entered the Finnish market on different dates and expanded their businesses to other cities in Finland than Helsinki, on different dates. The services provided by these companies are quite similar, with the differences focusing on the looks, boards and marketing. The pricing models of these companies at this moment are also very alike and based to the opening or parking fee combined with minute-based fee. The pricing models have one exception, where one of the companies provided a possibility to pay fixed monthly subscription payment as an alternative for the minute-based model. All the companies agreed on the fact that they had prepared for a stronger competition on the pricing issue, but that has not been a necessity during the first year in operation.

All the companies try to develop their application and board to earn the most reliable and safe view amongst their clients. The interviewees also agreed that the safety issue is the most important aspect, because they want to keep operating in Finland and safety issues could be a cause for further restrictions for the respected services. Liebermann & Montgomery (1987) lay a heavy emphasis on the technological leadership and advantages earned through strong research and development by the first mover companies, but as the services provided are quite homogenic, the pioneering companies are not really able to gain vast advantages through entering the market first. These kinds of services also have learned from each other from other

market areas in Europe and in the United States, so the first mover advantages through technological advantages, are diminished.

As Shaheen & Cohen (2018) demonstrated in their book, shared mobility services are a vital part of modern urban movement and are more likely going to be more frequently used and more integrated to cities' already existing movement plans, than fading away. All the interviewees shared the same vision for their companies and services, with the understanding that the companies must work in cooperation with the local municipalities, as well with each other, to create functioning movement possibilities as well as common rules and regulations. As a summary from the interviews, the cooperation with the city of Helsinki and between the companies operating in Finland, has worked in a very positive atmosphere. The interviewees also shared the idea, that they identify themselves as competitors, but now have felt that they are growing the market together and therefore they cooperate more than work against each other. This aspect is more likely to shift towards more fierce competition, when the market is more mature and has gained more stable customer base.

The most important question of this thesis was to examine the different advantages, these companies gain through different times of entering the market. All four companies have entered the Finnish market in respectively short period of time, but there were still mayor differences in their entries. The different advantages were all identified by the interviewees, but the general opinion from all the interviews, is that the late movers gained more advantages from their competitors' entries, than the pioneers gained by entering first. This aspect will be more thoroughly examined in the following section of the research.

4.3 Summarizing the key findings

The first key finding of this research was the acknowledgement that the late mover companies have gained more advantages from their late market arrival, compared to the early arrivals. The second key finding is related to the relation of previous theory and this research, whereas Lieberman & Montgomery (1987) found many advantages for the first mover companies, in the respected field of electric scooter rental businesses these advantages do not provide vast advantages, because of the characteristics of the businesses, that will be explained next in more detail. Third key finding is related to the importance of marketing, visibility and pricing of these

businesses, where it was found that the pricing factor is not as important as it was expected, compared to the other two. This aspect will also be explained in more detail.

The research question asked, how the companies in this respected field of business could gain advantages from early or late market entry, and as the researcher has gathered data from multiple interviews and other sources, the summary shows a finding that in Finnish market space, which was not the first market for most of these companies or in general in Europe, that the combined advantages have been more significant on the companies that had later arrivals. This conclusion does not dictate that the companies with early entries could not operate in profitable way, but as the business model is not completely new, a lot of information and business models have been learned from other markets, the advantages gained from following the pioneers outweigh the advantages gained from being the first on the spot. To answer the presented research question, this research acknowledges that the first movers did gain advantages for pioneering the Finnish market, but the advantages of the late movers, outweigh these advantages. The switching costs can be an advantage in the future for these companies, if the companies can move more to the monthly based pricing model over the current dominant pricing model that is based in charging per minute. In the fixed price for service model, the customer is more bound to the specific company and therefore the switching costs will have a more important role when he or she is choosing to use said company's services.

In the interviews it was clearly stated that all the interviewees agree that the pricing in the minute-based model, is not such a key factor deciding the success in the electronic scooter rental market in Finland, especially when the whole market's pricing is quite steady and there are not much space to move downwards. However, the companies' cost structure was found to be an important factor, and its importance will become more relevant, when the market reaches its maturity and the companies will focus more on protecting their own customer base and not so much on acquiring new customers. Keeping the cost structure is a key for the companies to gain profits through low prices, dictated by the market. For a company to survive in the market with noticeably higher prices, it would demand some advancements in technology or the brand, that according to this research are not available on the market.

On the next page, the key findings are portrayed with the help of the research questions and the themes that are most associated with the research question.

Research question	Theme	Main content
How electric scooter rental companies have benefitted from their early or late market entries to the Finnish market of shared mobility services?	Benefit of early vs late market entry.	The early movers benefitted from the early adaptors and media exposure but had the burden of educating its customers to correct usage of the service. The late movers benefitted of these educated customers, who did not have major switching costs and were therefore ready to use the late mover companies' services.
How an electric scooter rental company can utilize the advantage from their rival's investment to the market, with their late arrival to the market space?	Benefitting from free rider effects.	The late movers have the possibility of entering a market, where the hard work has been made by the first mover company. The customers know the service already and are willing to use switch if the new company's service is more available. Therefore, the late movers can invest more to visibility and availability of the service.
In their expansion process from a managerial perspective, how should electric scooter rental companies aim for untouched markets or markets occupied by rivals?	Utilizing different mover advantages as expansion strategies.	The suitable cities are limited in Finland, so most probably the companies are aiming to same cities. Because, the late mover advantages are seen to be more important, the companies could aim for markets that are already occupied by rivals.

Table 2. Summing up the key findings

5. Discussion

5.1 Contributions to existing research

In this section it will be considered how this research aligned to the theory available on the subject and how it contributes to already existing knowledge. The subject of first and late mover advantages is commonly acknowledged in the literature, but because of the young nature of shared mobility services, not much literature has been produced about the combination of these two phenomena. Lieberman & Montgomery (1987) found in their research many advantages for first movers, that are heavily involved with technological advances, research and development and other factors that include protecting their own customer base. However, these advantages cannot be directly applied in the electric scooter rental business, when there are literally no switching costs between the services and the technologies between these companies are quite the same, with just small differences in between.

It is highly probable that this aspect is subject for change, because when the market matures it is likely that the competition will turn more towards the pricing and this could provide the market new pricing models, that are likely to create more switching costs for the customers. Right now, switching costs, like Lieberman & Montgomery (1987) portrayed, that prevent the customer from changing between the companies offering their services, do not really exist as neither do the switching costs that derive from the customer's learning curve (Wernerfelt, 1988). But later the market can be quite shifted, if the companies adapt switching costs that originate from loyalty programs. These switching costs were introduced in the article by Klemperer (1986), and for example, they are very popular amongst airline frequent flyer programs.

As earlier stated, most of these companies examined in this research have started from other markets rather than Finland. Because of this is, it can be acknowledged that these companies, have most likely benefitted from first mover advantages and late mover advantages already on other markets and have gained experience and knowledge, that can then be used in the Finnish market. The next big mix up on the market may be caused of big shifts in technology. As Schumpeter (1961) called technological progression as "creative destruction", these companies are vulnerable to other shifts that will occur in the future. Other shared mobility services might provide these challenges, or they could be caused by the change how people use these services.

Liebermann & Montgomery (1987) listed incumbent inertia as one of the main disadvantages for the first mover companies, which means that the pioneers may negatively affect their own business and profitability by introducing products or services that cannibalize their own offerings, investing in assets that do not generate hoped profits or become inflexible for the needed changes in the market. One scenario how this could happen in the field of electric scooter rental business, is that the companies invest large amounts in scooters, that will be quickly replaced by newer models or hire personnel to a market area that it cannot sustain. The alternative pricing model can also cannibalize the companies' own profitability, if it's found to be too low and many customers decide to choose the less profitable option. The incumbent inertia theory supports this research's conclusion that the more important advantages are gained by the late moving companies, that can capitalize on the knowledge and intentions of the first mover companies. (Liebermann & Montgomery, 1987).

5.2 Learned advices from the companies

Most of the input from the interviewees in this research was very well in line with other interviews. The interviewees had their respected opinions and ideas, but generally they had quite similar view of the electric scooter rental business, the landscape in which they operate, shared mobility services and how to conduct these businesses in Finland in a profitable manner. All the interviewees saw shared mobility services as a possible solution to urban movement, what can also reduce carbon emissions. This is very well in line with the literature of Cohen & Shaheen (2018). With small exceptions, the interviewees also agreed on the most important aspects of the business model, that included safety, general order in urban landscape and the fact that the companies' cost structure must be kept effective to make the service profitable.

Where the interviewees had a bit more dispersion was the visibility and marketing. The companies that had arrived at the Helsinki market later, emphasized more on the importance of the visibility aspect. Understandably, the companies with the first entries, will gain most of the attention in the beginning, when media and the word of mouth will write and talk most of the new offered services. In line with the enjoyability and visibility discussion, the interviewees agreed that the application is a very important tool when engaging the customer. The application must be good looking, fun and easy to use, because it is the touchpoint of the service that will be most used by the customer. At this moment the applications are quite similar between each

other, what makes it easier for the late movers to come to the market, because there is not much pressure on the customer to learn how to use another service.

The interviewees agreed also that at this point, when the market is still rapidly growing, the companies are working more together towards a common goal, rather than compete between each other for customers. There is a big probability that this setting will evolve, when the market gets more mature. One of the questions the researcher wanted to find out with this research, was to see if the presence of another company, effects the company's desire to expand into other cities within Finland. It was quite unanimously stated that the qualities of the city and the population dictate more in the choosing process. In Finland, there is a limited number of cities that can uphold markets for electric scooter companies, so if a company is considering an expansion to a specific city, its competitors are most probably evaluating the possibilities in the same city.

5.3 The outcome of Mover strategies

Considered, that the whole market for electric scooter rental companies is new in Finland, and the limitation to solely these companies and no other providers of shared mobility services, this research concludes that the more advantageous entry time, was gained by the late mover companies. Obviously, this reasoning can be challenged, and there are variables that were not taken into consideration in this research. Moving forward, this research states that, when considering new countries and cities as potential landing spaces, the companies could emphasize their efforts more to those markets that are already occupied by its competitors.

The first movers did gain advantages from their work as a pioneer on the market, but because of the experiences from other European markets, these advantages cannot be exploited to the fullest in the Finnish market space and are outweighed by the advantages that the late mover companies gained from following the first movers. Other learnings will be showcased more in detail in the next chapter.

5.4 Profitable learnings

As the key finding of this study suggests, the late mover companies gained more advantages through their market arrival, than their pioneering competitors. From this finding, can be drawn a conclusion, that the electric scooter rental market offers possibilities also in the near future for other companies to enter and compete in. Liebermann & Montgomery (1987) stated switching costs and technological advances as the most important advantages for the first mover companies. If another company wants to enter the Finnish market, should it invest in creating advances in the technology used in the scooter and the application. If it is possible, the company could benefit largely from a pricing model that raises the switching cost for the customer, what should make the customers more loyal of a specific brand.

The electric scooter business is a solid part of Finnish shared mobility services market and will most probably spread to other cities in Finland, others being more than Tampere and Turku. Right now, the service process is quite simple, so visibility, costs and new ideas will be key learnings for these and future companies. It also must be taken into an account that the pressure and competition will not only derive from other companies that offer electric scooter rental services. There are and will arrive more shared mobility services that are competing for the same first & last miles in mobility (Cohen & Shaheen, 2018) that these companies are primarily offering.

6. Conclusions

6.1 Main conclusions

The companies that entered first to the Finnish market gained benefits from the big presence in the media and the buzz created by the Finnish consumers. The first two companies started in Helsinki with just days parting their launch, and in the early stages there were many writings in the papers as well as other media outlets. People who had used this kind of services in other markets, such as Stockholm, had a big influence on promoting the companies via social media and word of mouth. The first companies clearly benefitted from the early buzz, but they also had to educate the Finnish clientele, on how to use the services and what are the proper way of driving alongside other traffic.

The companies that entered the market after the first buzz had settled, could benefit from the customer base that had already experienced the service model with another company. As there are basically no switching costs, the late movers were able the launch with a bigger clientele, and it was easy for the customers to try the services of the new companies, because of the knowledge they already had. The late movers did not have to customise their services so much after their initial launch, as the pioneers had to when they were still figuring out the price points and other localised needs of the Finnish customers.

The findings in this research showcase that in a market of Finland's size, the aspect of being the only company in said city, is not among the top priorities. The companies are most probably aiming to the same cities for their expansion, so the question of should they enter an untouched market or already occupied market, should be answered from a different perspective, where the company must calculate how many companies can operate profitably in a specific city. If they believe there is still space for additional company, they should aim for the expansion. It was not a goal of this research, but it was commonly said in the interviews, that the maximum number for companies operating within the same city, would be four. More companies than that would lead to customers not giving enough interest.

6.2 Limitations

This research was limited to Finland and mainly Helsinki. While the companies operate in couple other cities in Finland, as well as in Helsinki, the research was mainly focused on Helsinki. The other cities were discussed also, but for the research to have a clear point it was necessary to concentrate to the Helsinki market. This research did not consider how other shared mobility services available in Helsinki effect the electric scooter rental businesses. In Helsinki there are wide variety of other shared mobility services, such as the city bikes, shared car rental services, boat sharing services and others. Since the city's and its urban area has a limited quantity of potential customers and users of these services, there must be a point when these services of different kinds start to compete within each other. This research focused solely on the electric scooter rental services and was limited in a sense how the other companies and services effect the whole urban movement and business models.

It also did not take into consideration the demographics of Helsinki, as in how suitable Helsinki as a city is for these companies. All the interviewees agreed that the most suited customer base for electric scooter rental services, is the young adults, even ought the companies do not want to limit its user base to a narrow population. When companies are considering the possible expansion to other cities, they should also consider what are the demographics of the city. As a quick thought from the data gathered from the interviews, it would seem to best fit to cities with a large population of young adults, but these factors were not taken into consideration in this research. Also, the geographical qualities of the possible expansion cities and Helsinki as well, could play a crucial role, as in these kinds of services should thrive in moderately flat cities, but this aspect wasn't also featured in this research. As mentioned before, this research was limited to the first year that these companies operate in Finland.

All the companies that were examined in this research, use referral marketing as one of their marketing strategies. Referral marketing is the industry standard throughout other shared mobility services and other markets in Europe. This research did not focus on referral marketing nor did it take a stance on how these companies had gained or lost advantages of the usage referral marketing strategy. The future research section of this research will provide few points on the possibilities of referral marketing later.

6.3 Further research

The findings in this study raise additional questions about the electric scooter rental market in Finland and in other markets, that can be examined in more detail. It must be considered that this research was conducted in the first year when all the companies started their operations in Finland. It will be interesting to conduct updated research in the same field, when the companies have been operating for a longer period. As all the companies now in Finnish market, started in a relatively short time period, it can be an interesting research to examine, how the market will have shaped in the following years. This research states that the late movers have gained more advantages than the first movers, but will it remain the same in the following years? Will the market situation stay the same, regarding the advantages via different market entries, or will the situation turn around? This can be a good basis for future research. During this research, the market examined was still in a state of big growth. When the market has reached its maturity and the companies will focus more on retaining their current customers than gaining new customers, and the competition will shift from creating a joint market to a more competitive market, it will be interesting to see different possibilities in the pricing model. This can also provide a good basis for future research, that can take a more specific look into the pricing models and the cost structures of these companies.

Once the market has developed to a more mature state, it is possible that the switching costs are greater for the customer and therefore the first mover companies can enjoy more of the advantages, that Liebermann & Montgomery (1987) had found in their research. The other interesting point for future research, is to investigate how many companies can function profitably in a market with the size of Finland. The future research can also take a broader look, how the shorter operating season effects these companies' profitability, and do these companies have to adjust their whole operating model for markets like Finland, that do not support the service as a year-long option, because of the weather conditions. At the moment the gathered data is mainly from the first year, that did not start as early for all the companies as the years that will follow, so it will be interesting to gather data from a longer period of time.

This research introduced shared mobility services mainly how Cohen & Shaheen (2018) had introduced them in their literature. However, it was not properly examined, how different options of shared mobility services compete now and in the future. As Cohen & Shaheen (2018) highlighted, many of the shared mobility services compliment on each other, but most probably different solutions can cannibalize other modes of shared mobility services. For example, the

electric scooter rental companies can be seen as rivals for shared city bikes, even ought they differ in their offered services. For future research this can be an interesting point of research to discover, what are the most functioning models for the customers, companies and societies that they serve.

Referral marketing was introduced shortly in the theory section based heavily on Berman (2016) research. All the companies involved in this research use referral marketing as a tool to market their product and gain new customers. Referral marketing was acknowledged in this research, but it was not taken as a focal point. For future research, it could be interesting point to conduct a research that examines, how these companies use referral marketing and what are the benefits of referral marketing. Also, is there a possibility for a company to gain advantages through referral marketing, since all the companies use it? Or could another marketing strategy be more efficient?

7. Sources

- Abell, D.F., 1978. Strategic Windows: The time to invest in a product or market is when a 'strategic window' is open. *Journal of marketing*, 42(3), pp.21-26.
- Arrow, K.J., 1972. Economic welfare and the allocation of resources for invention. In *Readings in industrial economics* (pp. 219-236). Palgrave, London.
- Barney, J., 1991. Firm resources and sustained competitive advantage. *Journal of management*, 17(1), pp.99-120.
- Basit, T., 2003. Manual or electronic? The role of coding in qualitative data analysis. *Educational research*, 45(2), pp.143-154.
- Bell, E., Bryman, A. and Harley, B., 2018. *Business research methods*. Oxford university press.
- Berman, B., 2016. Referral marketing: Harnessing the power of your customers. *Business Horizons*, 59(1), pp.19-28.
- Bevan, A., 1974. The UK potato crisp industry, 1960-72: A study of new entry competition. *The Journal of Industrial Economics*, pp.281-297.
- Bond, R.S. and Lean, D.F., 1977. *Sales, promotion, and product differentiation in two prescription drug markets*. Federal Trade Commission, Bureau of Economics.
- Bouwman, H., Carlsson, C., Carlsson, J., Nikou, S., Sell, A. and Walden, P., 2014. How Nokia failed to nail the Smartphone market.
- Braun, V. and Clarke, V., 2012. Thematic analysis.
- Chandler Jr, A.D., 1990. The visible hand: the managerial revolution in American business (Cambridge, Mass., 1977). *ChandlerThe visible hand: the managerial revolution in American business1977*.
- Cohen, A. and Shaheen, S., 2018. *Planning for shared mobility*.
- Conner, K.R., 1988. Strategies for product cannibalism. *Strategic Management Journal*, 9(S1), pp.9-26.
- Cooper, A.C. and Schendel, D., 1976. Strategic responses to technological threats. *Business horizons*, 19(1), pp.61-69.

- DeMaio, P., 2009. Bike-sharing: History, impacts, models of provision, and future. *Journal of public transportation*, 12(4), p.3.
- Dubois, A. and Gadde, L.E., 2002. Systematic combining: an abductive approach to case research. *Journal of business research*, 55(7), pp.553-560.
- Easterby-Smith, M., Thorpe, R. and Jackson, P.R., 2012. *Management research*. Sage.
- Fombrun, C.J. and Low, J., 2011. The real value of reputation. *Communication world*, 28(6), pp.18-22.
- Foster, R.N., 1988. *Innovation: The attacker's advantage*. Summit books.
- Ghemawat, P. and Spence, A.M., 1985. Learning curve spillovers and market performance. *The Quarterly Journal of Economics*, 100(Supplement), pp.839-852.
- Gilbert, R.J. and Newbery, D.M., 1982. Preemptive patenting and the persistence of monopoly. *The American Economic Review*, pp.514-526.
- Golafshani, N., 2003. Understanding reliability and validity in qualitative research. *The qualitative report*, 8(4), pp.597-607.
- Guasch, J.L. and Weiss, A., 1980. Adverse selection by markets and the advantage of being late. *The Quarterly Journal of Economics*, 94(3), pp.453-466.
- Hannan, M.T. and Freeman, J., 1984. Structural inertia and organizational change. *American sociological review*, pp.149-164.
- Hollingsworth, J., Copeland, B. and Johnson, J.X., 2019. Are e-scooters polluters? The environmental impacts of shared dockless electric scooters. *Environmental Research Letters*, 14(8), p.084031.
- HSL, 2019. Citybikes. [Online]. Viewed on the 6th of June 2019, <<https://kaupunkipyorat.hsl.fi/en>>.
- Iltalehti, 2019. *IL koeajoi Helsinkiin rantautuneet sähköpotkulaudat – kyyti on hauskaa ja helppoa, mutta matkan hinta voi pöyristyttää*. [Online]. Viewed on the 14th of May 2019, <<https://www.iltalehti.fi/kotimaa/a/d70910c4-7c87-4921-802f-6fc14ebb298d>>.
- Johnson, R.B. and Onwuegbuzie, A.J., 2004. Mixed methods research: A research paradigm whose time has come. *Educational researcher*, 33(7), pp.14-26.

Klemperer, P., 1987. Markets with consumer switching costs. *The quarterly journal of economics*, 102(2), pp.375-394.

Lieberman, M.B. and Montgomery, D.B., 1988. First-mover advantages. *Strategic management journal*, 9(S1), pp.41-58.

Longhurst, R., 2003. Semi-structured interviews and focus groups. *Key methods in geography*, 3(2), pp.143-156.

Main, O.W., 1955. *The Canadian Nickel Industry: A study in market control and public policy* (No. 4). University of Toronto Press.

Mansfield, E., Schwartz, M. and Wagner, S., 1981. Imitation costs and patents: an empirical study. *The economic journal*, 91(364), pp.907-918.

Martin, E.W. and Shaheen, S.A., 2014. Evaluating public transit modal shift dynamics in response to bikesharing: a tale of two US cities. *Journal of Transport Geography*, 41, pp.315-324.

Midgley, P., 2009. The role of smart bike-sharing systems in urban mobility. *Journeys*, 2(1), pp.23-31.

Montgomery, D.B., 1975. New product distribution: An analysis of supermarket buyer decisions. *Journal of Marketing Research*, 12(3), pp.255-264.

Porter, M.E. and PORTER, M., 1976. *Interbrand choice, strategy, and bilateral market power* (No. 146). Harvard University Press.

Prescott, E.C. and Visscher, M., 1977. Sequential location among firms with foresight. *The Bell Journal of Economics*, pp.378-393.

Ramanathan, R., 2011. An empirical analysis on the influence of risk on relationships between handling of product returns and customer loyalty in E-commerce. *International Journal of Production Economics*, 130(2), pp.255-261.

Robinson, W.T. and Fornell, C., 1985. Sources of market pioneer advantages in consumer goods industries. *Journal of Marketing Research*, 22(3), pp.305-317.

Saunders, M., Lewis, P.H.I.L.I.P. and Thornhill, A.D.R.I.A.N., 2007. Research methods. *Business Students 4th edition Pearson Education Limited, England*.

Scherer, F.M. and Ross, D., 1990. Industrial market structure and economic performance. *University of Illinois at Urbana-Champaign's Academy for entrepreneurial leadership historical research reference in entrepreneurship*.

Schmalensee, R., 1980. Product differentiation advantages of pioneering brands.

Schumpeter, J.A. and Redvers, O.P.I.E., 1961. *The Theory of Economic Development... Translated by Redvers Opie.[A Reduced Photographic Reprint of the Edition of 1934.]*. Oxford University Press.

Sorescu, A., Frambach, R.T., Singh, J., Rangaswamy, A. and Bridges, C., 2011. Innovations in retail business models. *Journal of retailing*, 87, pp.S3-S16.

Spence, A.M., 1981. The learning curve and competition. *The Bell Journal of Economics*, pp.49-70.

Spence, M., 1986. Cost reduction, competition and industry performance. In *New developments in the analysis of market structure* (pp. 475-518). Palgrave Macmillan, London.

Street, V.L., Street, M.D. and Lamont, B.T., 2013. The influence of organizational capacity and environmental dynamism on the first move–performance relationship. *Electronic Business*, 12(12).

Tang, M.J., 1988. An economic perspective on escalating commitment. *Strategic Management Journal*, 9(S1), pp.79-92.

Techcrunch, 2012. “Zipcar For Scooters” Startup Scoot Networks Launches To The Public In San Francisco. [Online]. Viewed on the 25th of May 2019, <<https://techcrunch.com/2012/09/26/scoot-sf-launch/>>.

Teece, D.J., 1986. Firm boundaries, technological innovation, and strategic management. *The economics of strategic planning*, pp.187-199.

Teece, D.J., 1986. Profiting from technological innovation: Implications for integration, collaboration, licensing and public policy.

Teece, D.J., 1980. The diffusion of an administrative innovation. *Management science*, 26(5), pp.464-470.

Wernerfelt, B. and Karnani, A., 1987. Competitive strategy under uncertainty. *Strategic Management Journal*, 8(2), pp.187-194.

Wernerfelt, B., 1988. General equilibrium with real time search in labor and product markets. *Journal of Political Economy*, 96(4), pp.821-831.

Yip, G.S., 1982. *Barriers to entry: A corporate-strategy perspective*. Lexington Books.

8. Attachments

8.1 Interview form

Haastattelurunko

Pro Gradu tutkimus

Merlin Hallman

1. Kerrotko hieman siitä mitä yrityksesi tekee? Mitä sinä teet yrityksessä?
2. Milloin toiminta on alkanut Suomessa? Milloin se on alkanut muualla?
3. Minkälaista kilpailua kohtaatte? Olitteko ensimmäisenä Suomessa vai kilpailijanne? Minne muille markkinoille olette levinneet?
4. Mikä on tärkein kilpailuetunne? Miksi?
5. Mitkä ovat pääkilpailijoidenne keskeisimmät kilpailuedut? Kuinka vastaatte omalla toiminnallenne kilpailuun?
6. Oletteko huomanneet markkinoilla eroavaisuuksia
 - Teknologisessa kehityksessä? Onko teidän ja kilpailijan välillä suuria eroja teknologiassa?
 - Ovatko kilpailijanne tai te kerenneet tavoittaa asiakkaita ennen muiden saapumista markkinoille?
 - Oletteko huomanneet asiakkaiden siirtyneen teiltä kilpailijalle tai toisin päin?
 - Millä tavalla vaikutatte asiakkaan päätökseen valita teidät?
7. Oletteko huomanneet markkinoilla eroavaisuuksia
 - Onko kilpailijat ”kouluttaneet asiakkaitanne puolestanne?”
 - Onko käyttäjäkuntanne vakiintunut?
 - Millä tavalla kilpailijanne yrittävät päihittää teidät teknologiassa?
 - Millä tavoilla kilpailijat yrittävät viedä asiakkaanne?

8. Mitkä ovat tärkeimmät keinot, joilla pyritte vaikuttamaan asiakkaidenne ostopäätökseen? Voitteko asettaa nämä keinot tärkeysjärjestykseen?

9. Pyrittekö seuraavaksi laajentumaan täysin koskemattomille markkinoille vai sellaisille, joissa on jo kosketuspinta tarjoamaanne palveluun?

- Suomessa? Ulkomailla?

10. Koetko, että taistelette kilpailijoitanne vastaan vai kasvatatte yhteisiä markkinoita?

11. Mikä on markkinaosuutenne nykyisillä markkinoilla? Oletteko menettämässä vai kasvattamassa markkinaosuutta lähitulevaisuudessa?

12. Mikä on visionne vuonna 2025?

13. Oletteko tehneet markkinatutkimusta? Jos olette, millainen asiakasprofiili teillä on? Miten se eroaa kilpailijan asiakasprofiilista?

14. Lähitulevaisuuden kasvutavoitteenne? Millä toimilla saavutatte sen?

8.2 Additional interview form

Lisäkysymykset – Lisähaastattelu 1

Kun haastattelin sinua viimeksi, oli Suomen markkinoilla vain kaksi yritystä tarjoamassa näitä palveluita. Koitteko suuria muutoksia markkinoilla tai asiakkaiden käytöksessä, kun muita yrityksiä tuli mukaan peliin?

Jouduitteko lähtemään hintakilpailuun, kun markkinoille tuli lisää yrityksiä?

Koetko, että Turussa/Helsingissä olisi vielä tilaa useammille toimijoille?

Pystyikö kilpailijat tuomaan markkinoille jotain uutta ja kenties yllättävää, josta olisi ollut hyötyä myös teille?

Lisäkysymykset – Lisähaastattelu 2

Mainitsit aiemmassa haastattelussamme, että teillä on ollut kilpailijoihin verrattuna haasteita saatavuudessa ja näkyvyydessä. Pystyittekö loppu vuodesta parantamaan tässä ja miten?

Markkinoilla vallitsee melko yhtenevä hinnoittelumalli. Toitte loppukesästä erilaisen hinnoittelun, joka perustui kuukausipohjaiseen hinnoitteluun. Koetko, että tämä oli onnistuminen? Saitteko sillä erottauduttua kilpailijoistanne? Tuletteko mahdollisesti jatkamaan tällaista hinnoittelua tai kokeiluja?

Miten koette Helsingin markkinat lähettäessä seuraavaan vuoteen? Markkinoilla on nyt neljä toimijaa, onko kaikille vielä tilaa? Olisiko tilaa useammille toimijoille?

Huomasitteko vaikutusta, kun teidän jälkeenne aloitti uusi yritys?