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**SHARED MOBILITY SERVICES CREATING SHARED VALUE
- CASE: HSL CITY BIKES & BLOX CAR**

Master's Thesis in
Strategic Management

VAASA 2019

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Year of Entering the University:	2014		
Year of Completing the Master's Thesis:	2019	Pages:	96

ABSTRACT

Sharing economy is a globally growing phenomenon, where cultural change, technological development, environmental crisis and potential business opportunities are seen as its drivers. Sharing economy is a possible solution to organize the economy in a more sustainable way, maintaining the current wellbeing with less physical assets. Climate Change, accelerated by human activities such as transportation caused CO₂-emissions, creates an example of the need for more sustainable economic solutions. Sharing economy could have the potential to reduce CO₂-emissions caused by transportation, which in return could curb the Climate Change. Although, sharing economy can be seen as quite a new field of study, so there is no clear academic consensus of its actual effect on cutting down transportation caused emissions.

This thesis aims to deepen the understanding of sharing economy as a phenomenon, focusing on possible providers and participants of sharing economy, as well as the shared untapped resources. Context of the thesis was chosen to be transportation, as it is one of the largest industries causing CO₂-emissions. More specifically, shared bikes and cars, as they are the two most common vehicles in Finland that are used for transportation. Moreover, the study evaluates the value shared mobility can create for society besides the business value, aiming to address the research question: *What shared value shared mobility services can create?* The study is a qualitative multiple case-study, executed through semi-structured theme interviews and utilizing Shared Value, a novel strategic framework.

Results of the thesis indicate that sharing economy providers and participants can be either private people, businesses or governmental providers, which supports classification of broad sharing economy. In addition, the thesis points out that shared resources are usually idling but they can also be specifically produced for the service use. The main characters of sharing economy include; favouring access over ownership, enabling citizens to be more than consumers and improving better utilization of resources. Thesis results support the argument that sharing economy can provide both economic and societal value and therefore shared mobility could support current transportation market towards more holistic sustainability.

KEYWORDS: Sharing economy, Shared mobility, Shared Value, Sustainability, Climate Change, Societal value.

1. INTRODUCTION

1.1. Motivation for the study

Environmental scholars around the world have pointed out it is unsustainable and even impossible to continue economic activities on the scale they are occurring now (Lahti & Selosmaa, 2013: 6–9). If all the world's people were consuming as Finnish people, we would need 3,6 planets to fulfil the total required consumption. (WWF, 2019.) There is need for more sustainable business model, which is not based on the economic growth at the expense of natural resources. Sharing economy, a growing phenomenon around the world, has been argued in many contexts as a potential option to organize the economy more sustainably. (Lahti et al, 2013: 6–9.) Only a small amount of study has been done on sharing economy and therefore it requires more research. (Kumar, Lahiri & Dogan, 2018.)

In 2011, Time-magazine categorized sharing economy among the ten phenomena, that are revolutionizing the world. The attention towards sharing economy has kept on growing ever since because of its ecological ideology, but also due to the latent and untapped financial and business value within it. (Lahti et al., 2013: 40.) A number of completely new and different businesses have emerged over the past several years in the market of sharing economy. (Kumar et al., 2018.) One of sharing economy pioneers, Airbnb, a service where people rent out part of their homes for short staying (Cohen & Kietzmann, 2014), gained \$93 million in profit on \$2.6 billion in revenue in 2018. (Bloomberg, 2019.) It has been evaluated that by 2025, companies in the five main industries of sharing economy will earn sales revenue of \$ 335 billion, which means that half of the revenue of these industries will go to companies with a sharing-based model. (PwC, 2015.)

In Finland, sharing economy is operating mostly in five industries: accommodation and spaces, transport, household, and small-scale work, professional services as well as crowdfunding. (PwC, 2017.) Since transportation is the second-largest source of greenhouse gas emissions, causing nearly 20% of the emissions globally, it has a huge

potential, but also pressures to operate more effectively and sustainably. Moreover, The Finnish Innovation Fund Sitra has also argued that sharing economy has the best potential in the mobility industry. (Lahti, 2017.) Greenhouse gas emissions are warming our planet and speeding up the climate change, which is one of our time biggest challenges. Since sharing economy is proposed to be one of the world revolutionizing phenomena (Lahti et al, 2013: 40), and on the other hand the climate change proposed to be one of our time biggest challenges, it is motivating to study the relation of these phenomena on each other and the combination's potential for more sustainable future. Shared mobility, a sub-group of sharing economy operating in the mobility industry, has quickly reached a global market value exceeding \$60 billion across China, Europe, and the United States – the growth rate has been 150% year over year for the last three years (McKinsey & Company, 2019). This growth is visible in Helsinki too, as several new electronic scooters providers have entered to the shared mobility market in Helsinki during the year of 2019. (HS, 2019.)

Since sharing economy has been seen as environmentally friendly field of economy, simultaneously providing markets new business opportunities, it can be seen to be creating both societal and economic value. This ideology is very close to the ideology behind Porter's and Kramer's *Creating Shared Value* -framework's (CSV). This relatively novel strategic framework is pushing companies to pursue more than just economic value and truly consider their role in society – besides creating economic value, companies should create societal value as well. (Kramer & Porter, 2011.) Besides both CSV-framework and sharing economy as a phenomenon are novel subjects in academic literature, this is one of the first if not the only thesis they have been combined.

1.2. Research gap

As a phenomenon, sharing economy has been around for quite some time, but the traditional form of sharing economy has faced notable modifications during the digital era and to date, there still is not a clear consensus of what sharing economy truly is. Thus, sharing economy is a fresh subject to study and requires more academic research to

understand it comprehensively. This thesis is aiming to clarify the concept of sharing economy, answering questions such as; who may be the sharing economy service providers, which parties may be involved in sharing economy and do the shared assets need to be idling, untapped capacity.

The sharing economy has grown its significance in recent years for many reasons, but one significant driver has been the growth of people environmental awareness (Cohen & Shaheen, 2016). Increased amount of study has been done about environmental sustainability, which demonstrates its growing priority. (Shaheen, Mallery, & Kingsley, 2012; Olson & Kemp, 2015; MAL, 2019.) However, there is a lack of academic research, that studies shared mobility services potential to create environmental value, besides the business opportunities. Traditionally societal and business ambitions have been seen as separate entities, but more focus should be given to their joint opportunities. This ideology is summarized in Porter's and Kramer's CVS-framework, Creating Shared Value. (Kramer et al., 2011.) However, the shared value framework has been studied just a little itself, but hardly at all from the sharing economy perspective. Thus, this paper is aiming to fulfil this research gap by viewing shared mobility from the CVS-framework perspective.

First, this study aims to clarify the understanding of sharing economy as a phenomenon, especially in the shared mobility industry, in the context of bike and car sharing. Second, this study is aiming to show shared mobility service's potential in shared value context, providing a deeper understanding of the societal level values that shared mobility may create. Third, this study is pursuing to better understand the business perspective of sharing economy and provide important issues to consider for a single organization operating in the market of shared mobility.

The figure below demonstrates the research gap this thesis is aiming to focus on: the relation of sharing economy and environmental sustainability. Within sharing economy, the focus is on the transport industry, especially in the context of bike and car sharing. Moreover, that combination will be viewed in the light of CSV-framework, evaluating shared mobility's potential to create shared value.

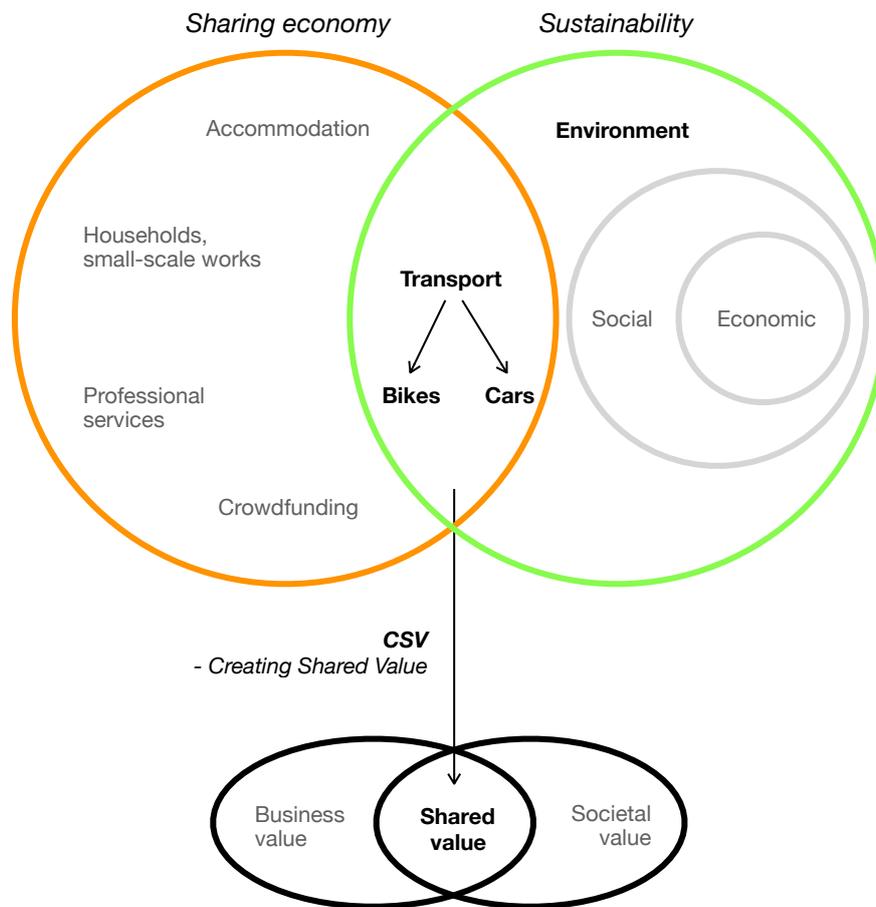


Figure 1: Research gap – Sharing economy and sustainability combination in the light of shared value -framework

1.3. Research question

This study provides an opportunity to deepen the understanding of sharing economy, especially in the field of mobility. The aim is not to attempt to create a standard definition of sharing economy, but rather present the main characters of sharing economy and the services in that industry. On one hand, sharing economy is viewed at the macro level to understand the key forces affecting it and introduced generally how its business value is created. On the other hand, the micro level is provided to better understand the ways how shared value can be created by a single shared mobility organization.

The aim of this study is addressed through the following research question: *What shared value shared mobility services can create?* The research question will be reached by answering the following objectives:

- *What are the key characters of the sharing economy?*
- *How shared mobility services can create business value?*
- *What societal value can shared mobility services create?*

1.4. Research structure

The first chapter introduces the urgency of the topic, the research question, research objectives and finally shows how this paper is structured. The second chapter presents the previous academic research made on the subject. In the third chapter, all the methodological decisions made during this study are introduced. Additionally, the companies and interviewees involved in this study are presented. The fourth chapter reports my empirical findings – findings are categorized based on the research objectives. Lastly, the study limitations, future research suggestions and managerial, as well as theoretical contribution of this study, are discussed.

2. LITERATURE REVIEW

2.1. Sharing economy: Phenomenon and business value

The purpose of this chapter is to view sharing economy as a phenomenon, introduce drivers behind its rise at the macro level and provide an understanding of how its business value can be created. The chapter begins by introducing the most agreed causal factors for the sharing economy. After that, typical conditions for sharing economy existing are explained and different definitions of sharing economy are provided to show how fragmented a subject sharing economy still is. Lastly, central business perspectives of sharing economy services are introduced to present sharing the economy potential to create business value.

2.1.1. Drivers behind the rise of sharing economy

Sharing economy has gained a lot of attention among policy-makers, business managers and academics (Acquier, Daudigeos, & Pinkse, 2017). A number of completely new and different businesses have emerged over the past several years. Their underlying business models have something in common – they operate in *sharing the economy* field, where recourses are shared in creative ways. A growing number of consumers prefer now such a sharing model to mainstream alternatives, and sharing economy is also being adopted by many companies across various industries, in accommodation, on-demand freelancer labour, ridesharing, used clothes, farming equipment, and peer-to-peer lending, just to mention few. (Kumar et al., 2018.) Well known examples are Airbnb, where people rent out part of their homes for short staying, and Uber, which enables location-based, real-time ridesharing. (Cohen et al., 2014.)

Sharing economy is not growing on top of the traditional economic growth, it has been stated as “creative destruction” instead. According to Schumpeter, creative destruction refers to the incessant product and process innovation mechanism by which new production units replace outdated ones. However, creative destruction concept has faced

critic as it is also complex if it may have damaging economic consequences in the short run. (Legrand & Hagemann, 2017.)

Sharing economy is a growing phenomenon around the world, economic, environmental and social forces as the drivers (Sitra, 2013; Shaheen, Cohen, & Zohdy, 2016.) The drivers can be categorized into five main categories: cultural change, technological development, environmental crisis, economic crisis, and business opportunities. (Lahti et al., 2013: 58).

The cultural change behind the sharing economy can be seen from several point of views. One cultural change is favouring access over ownership. Sharing can be seen as an easier way to consume, since owning brings extra obligations for a consumer to carry, such as responsibility, costs, and risks. (Tiikkaja & Kalenoja, 2010; Ilmastopaneeli, 2015; WSP, 2016.) Choosing a purchase takes time, the cost of acquisition is high, the assets need to be stored and as the purchase decreases the possibility to do further purchases. (PwC, 2015.) As Jeremy Rifkin, a noted economist mentioned that 25 years from now, car sharing will be the norm and ownership an anomaly. Preferring sharing is popular in the mobility market and among Millennials, people born between 1980 and 2000. The ownership was a status symbol in the past, but among the young not anymore. (PwC, 2015.) Compared to previous generations, such as Baby Boomers and Generation X, Millennials seem to appreciate different things, for example doing things themselves, favouring spare time and flexibility over money, preferring easy, especially digital access to services, increasing consciousness of the environment and appreciating urban life without owning a car. In addition, Millennials prefer renting to owning due to the mobility factor and economic constraints, they are usually native technology users and they might be interested in political issues, such as economic inequality. (Lahti et al., 2013: 58–62.) Based on Hall and Krueger's (2015) study, 49% of Uber users are below the age of 39. (Kumar, et al., 2018.) In addition, it has been evaluated that by 2030 nearly 10 % of sold cars might be shared cars and more seldom people turning 18 years want to acquire a driving license. (Tiikkaja & Kalenoja, 2010; Ilmastopaneeli, 2015; WSP, 2016.) However, it is not sure if this trend will change when this generation is at the age of having their own families and the need for a car might change. (Belk, 2014.) Moreover, it is good to

notice that a similar transformation from owning culture has existed in the business world for a longer time – outsourcing and leasing-services as an example. (Lahti et al., 2013.)

In parallel with the ownership-culture transformation, dematerialization, and servitization, have advanced the rise of sharing economy too. (Lahti et al., 2013.) Servitization is a transformation journey, where firms turn to offer more services instead of just products. According to Vandermerwe and Rada (1988) early studies of servitization, firms are adding service to their offering as means of increasing competitiveness, turnover and market power, (Kowalkowski, Gebauer, Kamp, & Parry, 2017) as servitization ensures firms to differentiate their offering and enhance customer engagement (Vendrell-Herrero, Bustinza, Parry, & Georgantzis, 2017). Dematerialization, where no material is used to deliver the same level of functionality to the user, is transforming the way firms are positioned in the supply chain due to reduction in production and transport costs and the different ways business engage with customers. (Vendrell-Herrero et al., 2017.) Additionally, anti-consumism, a phenomenon which aims to reduce the overall consumption, has raised recently. For anti-consumers sharing can be an alternative way to participate in consumer markets (Ballantine & Ozanne, 2016).

Other cultural changes affecting the sharing economy growth are urbanization, more open access to information and data as well as 24/7/365 consumption culture (Mal, 2019; PwC, 2015). Besides these changes, very important enabler of sharing economy stabilizing is also social effort – without society, economy or living habits will not change (Sitra, 2013). The change in people's behaviour, is one of the crucial steps towards sustainability – there is a straight correlation with the change of human behaviour in accommodation, mobility, owning a car, choosing a place to live and pollution level. (Liikennevirasto, 2016; Kumar et al., 2018.)

Technological change. Over the last two decades, the global supply and demand chains, as well as consumer behaviours in many businesses and industries, have changed by different forces (Kumar et al., 2018). Information and Communication Technology (ICT), has been behind of this transformation and it has lead the entire consumption and production process towards of these hybridizations (Ma, Rong, Luo, Wang, Mangalagiu

& Thornton, 2019). In other words, advancements in social networking, location-based services, the Internet, and mobile technologies have contributed to a sharing economy (Shaheen et al., 2016). As an example, car-sharing platforms enable the customer to effectively pick up the car immediately at the location specified by the application, using the card received upon registration (PwC, 2015). Technology enables information about origins, destinations, modal choices, transfer points and times, waits, vehicle occupancies, travel lengths and times are (Cohen & Shaheen, 2016). However, it is important to underline that the Internet did not create the sharing economy, it only increased the range of sharing economy activities people have been participating lately (Olson & Kemp, 2015).

Sharing economy markets have expanded hugely because of the possibilities of cloud storage and big data analytics, the use of social media and mobile services (Olson et al., 2015). From the business provider's perspective, building up, launching new and expanding an existing sharing economy business is relatively affordable nowadays, because of the digital technology breakthrough and widespread of smartphones in people everyday life (Sitra, 2013; Ritter & Schanz, 2018). Additionally, social media and the Internet are meaningful factors overcoming the lack of familiarity of sharing economy among users (Shaheen et al., 2012).

Environmental crisis. The success of sharing economy businesses is driven by the growing awareness of environmental issues as well as resource scarcity (Olson et al., 2015; Shaheen et al., 2012; MAL, 2019), where the Internet is one of the boosting factors (Cohen et al., 2014). The 21st century has argued as meddled with the environment and social problems due to the thumping use of natural resources, the absence of urban planning and the reduced quality of individuals in urban areas (Machado, de Salles Hue, Berssaneti, & Quintanilha, 2018).

Fossil fuel usage, causing carbon dioxide and other emissions, is speeding up climate change (Lal, 2004; Liikennevirasto, 2016; Hoegh-Guldberg, Jacob, Taylor, & et al, 2018). While climate change has been the case for active fossil fuel using industries and companies, it now holds true for all industries, (Lash & Wellington, 2007.) since global

warming is affecting on everything in the long run. If all the world's people were consuming as Finnish people, we would need 3,6 planets to handle the consumption (WWF, 2019). Nevertheless, that calculation based on ecological footprints has faced criticism too – where it is a simple and intuitive tool to estimate the production inputs for a given consumption level, it fails to address the sustainability of consumption that it was originally conceived to do (Fiala, 2008). Climate change includes regulatory risks, supply chain risks, product and technology risks, litigation and reputation risks, just to mention a few (Lash & Wellington, n.d.). In addition, climate change means multiple treats according to our ecosystem, species, sea surface changes, food production, water crisis, verge weather phenomena, inequality, methane release from the sea bottom and ozone depletion, which are all important for life. (Ilmasto, 2019; Hoegh-Guldberg et al., 2018.)

To curb climate change, the global economy needs to change radically. (Burton, 1987; Liikennevirasto, 2016.) Recently the decision-makers have started to discuss economic growth and natural resources disconnection – solutions which enable economic growth without relinquishing current wellbeing. The economic growth has also raised opposite economic theories into the discussion, such as *degrowth*, which is questioning the compatibility of economic growth and environmental sustainability as well as attacking the economic growth paradigm. (Drews & Reese, 2018; Gabriel & Bond, 2019.) Despite the increased interest towards degrowth, it has been critiqued as communities should first fulfil the needs of individuals before aiming to prioritize the welfare of nature. (Drews et al., 2018.) Sharing economy is also promoted to offer a more sustainable economy and consumption model to ensure natural resources' sustainable usage, simultaneously keeping up the current wellbeing. (Liikennevirasto, 2016.) Additionally, sharing economy could push our current consumer culture towards a more collective consumption culture (Lahti & Selosmaa, 2013a).

The potential sustainability advantages of sharing economies are exiting, from both organizational and environmental perspective, (Cohen et al., 2014.) since the risk of climate change offers new sources of competitive advantage too. Consumers' and investors' awareness of environmental crisis is strongly affecting their consumption decisions and raising the interest in sharing economy. (Lash et al., 2007.) Growing waste

amounts, population growth, and overconsumption are also crucial environmental challenges. Thus, more effective recycling and re-usage is needed and sharing economy is a very potential solution. (Lahti et al., 2013: 65.) Nevertheless, sharing economy is not inherently sustainable, but it provides considerable potential in economic, social and environmental fields (Ma et al., 2019). The environmental promises of sharing economy could lead to resources better utilization, through reducing idle capacity by favouring access instead of ownership or using goods till the end of their lifespan (Ritter & Schanz, 2018). At some point, the resource-efficient policy will inevitably replace resource ineffective policies (Lahti et al., 2013).

Economic crisis. Many researchers justify that the recession of 2008-2009 was an advancing force for sharing economy's expansion. During that time many people lost their jobs and started economizing. Sharing economy provides an alternative way to consume and with less money. (Shaheen et al, 2012; Cohen et al., 2014; MAL, 2019; .) Economic crisis might have been impacting on the rise of sharing economy, but it is challenging to argue how large impact it has had, because simultaneously for example the use of smartphones increased, which has also impacted on the rise of sharing economy. However, sharing economy truly is popular among low-income people and it is used in economizing and consuming in the alternative, more affordable ways. (PwC, 2015; Skjelvik, Erlandsen, & Haavardsholm, 2017.)

Business opportunities. Besides the above-mentioned opportunities, sharing economy provides significant business opportunities. Originally, sharing economy models were based on ideologies, but soon sharing economy potential for business was also noticed (MAL, 2019). By 2025 in the five main industries sharing economy is expected to earn sales revenue of \$ 335 billion, which means half of the revenue of the same industries will go to companies with a sharing-based model. (PwC, 2015.) Some researchers have stated sharing economy to become as significant as the industrial revolution has been (Lahti et al., 2013: 65–69). The attractiveness of business opportunities can be illustrated by the fact that between 2012 and 2015 more than 200 start-ups utilizing a sharing-based business model earned in total \$ 11.5 billion. Airbnb, the largest provider in the hotel industry, receives daily more than 140 000 people booking accommodation, while Uber

operates 157 000 rides globally on an average day. By comparison, Airbnb was valued at \$ 24 billion in July 2015, as the competitor Marriott hotel chain was valued at \$ 21 billion. (PwC, 2015.) Hence, there is a lot of untapped potential in sharing economy.

2.1.2. Defining the sharing economy

Sharing is defined as a social practice among a group of individuals who are commonly using and distributing the same object (Boons & Bocken, 2018). Many experts argue that the idea of sharing economy is not new, because for a long time households have shared assets among vicinities and even with unknown people. (Tilastokeskus, 2016.) Originally sharing has been more like *intimate sharing*, happened mostly between intimate groups like family and friends. There is also several kinds of sharing – uncompensated and compensated sharing as well as communing (Boons & Bocken, 2018; MAL, 2018). This thesis is focusing on *compensated sharing*, sharing with market transactions, to provide a meaningful contribution to business studies.

As there is no consensus of the definition and terms of sharing economy, the same issues have been discussed with different terms. For example, Botsman and Rogers in their famous book *What's mine is yours*, list four crucial conditions for collaborative consumption. Even though they used term the *collaborative consumption*, the same conditions have been linked to sharing economy as well. In this thesis, these conditions are discussed even if this thesis is focusing on sharing economy. These conditions' suitability for sharing economy services will be evaluated in the results chapter, to clarify if they are meaningful issues for sharing economy.

Botsman and Rogers' four conditions are; a critical mass, idling capacity, belief in common good and trust between strangers. Critical mass ensures that service users feel that enough of choices exist within the service for them to feel satisfied. Maximizing the utility of resources that are used ineffectively, in other words resources with idling capacity, create the sharing economy function.

A typical example is private cars, which are not in use 95 % of the time and could be utilized much more effectively (Deloitte, 2014). Belief in the common good is essential

for sharing economy to operate. Participating in these platforms, both by sharing or consuming, supports the system and adds value to the community as a whole. Trust is not new among sharing economy, but technology has increased the trust between strangers, in form of the security of online transactions and secure verified personal profiles to mention a few. (Lahti et al., 2013: 23; Dillahunt, Arbor, & Malone, 2015.)

Since sharing economy is a relatively new research area, academic literature does not have a consensus regarding its definition (Kumar et al., 2018). As mentioned above, there are several synonyms generally used meaning mostly the same. For example *collaborative consumption*, *collaborative economy*, (Kumar et al., 2018a), *on-demand economy*, *gig economy*, *freelance economy*, *peer economy*, *access economy*, *crowd economy*, *digital economy*, and *platform economy*. According to April Rinne (2017) from the World Economic Forum, sharing economy and the collaborative economy as well as collaborative consumption have very similar descriptions. Nevertheless, the gig economy and freelance economy are focusing on workforce sharing. On the other hand, the terms digital economy and platform economy are focusing on anything powered by tech-centric platforms or digital technologies. Access economy focuses on access over ownership, thus, meaning also temporary access instead of switching goods for example. (World Economic Forum, 2017.) In this study, sharing economy is the term used, as it is the most common term used in academic literature. In the table below, there are different sharing economy definitions according to the major authors of the subject:

Author, year	Definition: <i>Sharing economy is...</i>
(Sundararajan, 2016)	...typically used to refer to the emergence of business models that utilize the Internet as a platform for exchanges in which resources are shared by multiple users.
(Miller, 2016)	...an economic model where people are creating and sharing goods, services, space, and money.
(Botsman, 2013)	...an economic model based on sharing, swapping, trading, or renting products and services, enabling access over ownership.
(Olson et al., 2015)	...a market where businesses, individuals, or machines are the users; assets and skillsets are shared creating economic benefit for both parts of the sharing; and usually internet provides means for communication and coordination of sharing.
(Santana & Parigi, 2015)	...market, which provides for providers and consumers temporary access to products and services.
(Choi, Cho, Lee, Hong, & Woo, 2014)	...collaborative consumption through exchanging, sharing, and rental of resources without owning the assets.
(Posen, 2016)	... alleviating community ownership, localized production, small-scale enterprise, co-operation as well as the regeneration of economic and natural profusion, and creating innovative forms of sharing underused assets.
(Muñoz & Cohen, 2017)	...a socio-economic system enabling an intermediated set of exchanges of goods and services between individuals and organizations which aim to increase efficiency and optimization of sub-utilized resources in society.
(Schor, 2016)	... categorized into four groups: recirculation of goods, increased utilization of durable assets, exchange of services, and sharing of productive assets.
(Frenken & Schor, 2017)	... as consumers granting each other temporary access to under-utilized physical assets (idle capacity), possibly money.
(Cambridge University, 2019)	... an economic system that is based on people sharing possessions and services, either for free or for payment, usually using the internet to organize this.

Table 1: Major sharing economy authors' definitions of sharing economy.

As shown above, the sharing economy has several different definitions and there are some overlaps between different explanations. Some researchers clarified sharing economy to concern about already existing assets and only owned by private people instead of factors of production, like in car rental services. Additionally, they emphasize that sharing economy is about sharing of underutilized assets, thus assets should exist instead of being produced for the service use. However, along with the new trend, there have arisen services that classify themselves as sharing economy services, even if their assets are produced for service users and not owned by private persons. (Lahti et al., 2013: 108–109.)

Another disagreement concerns about the sharing economy participating parties. The classification of broad sharing economy involves peer to peer, business to peer, government to peer and business to business – business models. However, sharing economy can be divided into old and new categories. Old categorization goes along with the broader classification, but the new classification concerns more only peer to peer sharing via digital platforms. (Lahti et al., 2013: 114–115). The draw with the line is loose and requires more clarification. Thus, in this paper, both government and business providers are chosen as case examples, to get a coherent understanding from a different point of views.

Some researchers also highlight the digital platforms as a necessary part of the model. However, it is crucial to point out that all the sharing economy services do not require highly developed technology, it has only eased many sharing economy services' development and expansion. For example, Restaurant Day is not requiring any digital platform but is seen as a pioneer of sharing economy examples in Finland. (Tulevaisuusvaliokunta, 2018.) According to this, the Internet or digital platform is not a requirement for sharing economy, but is nowadays very often used.

In this thesis, the aim is not to attempt to create a standard definition of sharing economy but to present the main characteristics of the phenomenon and services in that industry. Disagreement about sharing economy participants, providers and shared assets idling still

require clarification. Thus, these disagreements were discussed in the interviews and the findings are concluded later in the findings chapter.

2.1.3. Sharing economy business logic

In this chapter sharing economy is viewed from the business perspective to understand, how it can create business value as a part of shared value. Later, the societal value that sharing economy may create will be introduced too. To understand how sharing economy services may create business value, their possible earning logics are introduced. In this chapter, sharing economy is viewed at the micro level, providing a perspective for a single organization to create business value.

In addition to the societal value discussed later, sharing economy offers a huge economic potential that can be realized in an appropriate environment. From a single organization's perspective, at a micro-level, sharing economy provides several economic benefits and opportunities: competitive advantage, more efficient resources utilization and low operating costs. (Lahti et al., 2013: 69.) Before reaching these benefits, it is important to understand the big picture of the underlying operating models of sharing economy and the logics, how the business value can be created. How the sharing economy services are creating business value, can be viewed through their ways to gather money, in other words through their business logic. Rachel Botsman (2010), a pioneer of collaborative consumption and sharing economy, has stated the following earning logics being typical for sharing economy:

Business logic	Explanation	Example
<i>Service fee</i>	A fee for successfully matchmaking buyers and sellers – collected related to the primary products or service being purchased.	Airbnb: Charging 6-12% service fee for every reservation booked and 3% service fee from hosts – the higher the total price, the lower the service fee percentage. (Airbnb, 2019.)
<i>Freemium</i>	Basic service/platform use free, additional benefits and exclusive features charged.	Netcycler: Basic swap services for free, additional services as an integrated postal service charged. (Lahti et al., 2013: 112–113.)
<i>On-Sale</i>	Company purchases unwanted goods direct from customers then recycles and re-sells the products/its parts for a higher value.	eBay: purchases used electronics and sell those afterward with a higher price. (Lahti et al., 2013: 112–113.)
<i>Steady membership fee</i>	A flat monthly/annual membership fee, regardless of usage.	MOW: Coworking space for firms and entrepreneurs – charged by monthly fee (MOW, 2019).
<i>Membership plus usage</i>	A one-off or annual membership fee, for example. Additional fees charged based on usage.	DriveNow: Charges a one-off registration fee of 29 €. Drivers are also charged 29 cents per minute for the usage of vehicles. The rate covers parking fees and petrol. (DriveNow, 2019.)
<i>Tiered subscription plans</i>	A range of subscription plans at different price point based on frequency use of numbers of goods desired.	Netflix: Offers three different subscription packages: unlimited monthly streaming, unlimited DVDs and a combination of both (Netflix, 2019).
<i>Social media</i>	Promotional financing and sales of user-generated data.	Facebook: Provides user-generated data to advertisers and advertisers get a platform for their promotions (Lahti & Selosmaa, 2013a)
<i>Free platform for all</i>	Free basic platform, charged as customized (usually for companies and organizations).	Sharetribe: An open source-based sharing tool, where any company can easily set up a market place for any purpose (Lahti et al., 2013)
<i>No business logic</i>	Based on external financial funding from the public sector or business angels.	Library: public sector financed common service. (Lahti et al., 2013)

Table 2: *Sharing economy business logics*

As sharing economy is creating value for the businesses, it provides costs savings and earning possibilities for private people too, when they are sharing their knowledge or property – thus, savings can be mutual in sharing economy. As an assets owner, it is possible to earn through sharing your own assets, while assets user can save the maintenance and insurance costs as well as the actual acquiring of the product. Additionally, sharing economy may create economic value in macro-level through new jobs and increased gross domestic product. Hence, sharing economy's potential to create economic value is multi-levelled. (Lahti et al., 2013: 96–97; Shaheen, Chan, Bansal & Cohen, 2015.; Litman et al., 2017.)

2.2. Transport: Impacts on climate and shared modes

This chapter builds a bridge between the sharing economy in the transport industry and climate. Transportation's relation to climate change is introduced and the reasons why businesses should also be worried about it, is explained. Then, the perspective of sharing economy is narrowed down to concern this study context, transport industry, as shared mobility is presented. Through this chapter, the reader can understand why this study is interested in the transport market, see why it is crucial to strive towards more environmental-friendly mobility and concern shared mobility as an alternative for traditional transportation modes.

2.2.1. Transportation impacts on climate

Greenhouse gas, GHG, is crucial for warming the atmosphere and making life in our planet possible. The most significant greenhouse gas, carbon dioxide (CO₂), is affecting the most on climate change. Climate has always been changing – ice age as an example. However, the natural speed of global warming has been steeply rising for a longer period time, caused by human activities, such as clearing of land for agriculture, industry and other activities. (Ilmasto-opas, 2019.) Over the last century, especially humans usage of fossil fuels, such as coal and oil, has increased the number of CO₂-emissions. (Global Climate Change, 2019.) Increased CO₂-emissions are warming the planet over the

natural speed, thus fastening the *climate change*, which in turn is having a damaging impact on our planet. (Ilmasto-opas, 2019; EPA, 2016.)

Climate change impacts extend on physical, biological and human systems. Physical systems variations can be observed in the melting poles, snow melting, warming the permafrost, flooding as well as droughts in rivers and lakes, coastal erosion, sea-level rise and other extreme natural phenomena. On the other hand, biological systems are facing changes like the death of fauna in terrestrial and marine ecosystems, wildfires and flora and fauna displacement looking for new living conditions. And for human systems, climate change destroys crops and food production, causes diseases and death, destruction and loss of economic livelihoods and migrations of climate refugees. Straight, or as a rebound effect, climate change is impacting almost everything. (Active Sustainability, 2019; Hoegh-Guldberg et al., 2018.)

Consumers are more aware of the environmental issues than ever, thus companies need to truly consider the environmental questions as well. Only a few of the companies are not taking climate change in consideration today – companies are generally very conscious about it and utilizing already that potential in business. (Tilastokeskus, 2010.) Climate change pushes the business competition towards a low-carbon economy. Besides the damage climate change is evaluated to cause, it pushes society to create also new job opportunities, innovations, and technologies. Whatever perspective is adopted, the change in the business is obvious. (Fankhauser, Sehleier, & Stern, 2008.)

Both transportation reduction and new technologies can ease to reduce transportation caused emissions. Reduced transportation requires better public transport and lighter vehicle utilization. Especially fossil fuel-based gasoline used in private cars is damaging to the environment. New solutions, such as bio- and other natural resource-based fuels together with electric cars, have been stated to have huge potential for more environmentally friendly transport. (Ilmasto, 2019.)

Paris Climate Agreement has engaged 186 member countries to maintain the global temperature rise below 1,5 C, starting from 2020. (COP21, 2016.) According to the

Finnish Transport Infrastructure Agency report (2016), Finland is aiming to reduce transport based GHG-emissions from 11 Mt to 7,9 Mt by 2030. There are few objectives through Finland is reaching that goal: replacing fossil fuel using with more sustainable solutions, changing the travel behaviours and modes, and reducing and intensifying the energy use. Moreover, Finland is aiming to have a nearly zero-emission level in the transport industry. With renewable natural resources using, electric vehicles, and better innovations in the shared mobility, it might be possible. (Liikennevirasto, 2016.) There is also a strategy called "Liikennekaari", which is made to change the thinking and organizing of transport – to reduce the barriers and open paths for new travel modes. The Liikennekaari strategy would ease the growth of the new service, wider the utilization of digitalization in services and improve the existing resources allocation and utilization. (LVM, 2016.) The transport industry is considerably regulated and controlled by the public sector, which explains the challenges of executing and negotiating about Liikennekaari. For example, taxi regulation has been changed due to Liikennekaari. The taxi industry pricing has been exempted and market entry barriers for new taxi drivers lowered. This regulation change has allowed Uber to continue its operations in Finland after a few years of prohibition. (Finlex, 2019; Uusi Suomi, 2017.)

From global GHG-emissions, over 20 % are caused by transportation. The most environmentally harming transportation modes are flying, ship transit and private car. (Liikennevirasto, 2016; Öljy&Bio, 2019.) In Finland, the yearly travel amount per individual is averagely 1031 trips – 21 % walking, 8 % cycling, 59 % private car, 5 % bus, 4 % alternative vehicles, such as scooter, motorbike or van, 2% rails, 0,2 % airplane and 0,1 % ship. Thus, private cars and bikes are the two most commonly used vehicles in Finland. Especially inside the cities, 5 to 50 kilometres length private car rides are the hardest polluter (Ilmastopaneeli, 2015). Besides the negative impact of transportation, it has a huge meaning for our society and economic growth. This paradigm between economic growth and transportation causing GHG-emissions is a true challenge in mobility planning. (Hensher & Button, 2003:1–2.)

2.2.2. Shared mobility

Transportation has the largest emissions reduction potential in sharing economy industries (Skjelvik et al., 2017) since transportation sector is currently producing about one-third of the total energy consumption in Europe and United States (Machado et al., 2018). Traditional transportation truly needs new sustainable innovations, which is discussed next.

Sharing economy in the mobility market, *shared mobility*, is the subgroup and one facet of sharing economy (Shaheen et al., 2016). Shared mobility has the potential to encourage the spreading and use of underutilized assets as well as improve more sustainable consumption culture (Machado et al., 2018; Santos, 2018). Shared mobility enables short-term access to shared vehicles according to the user's needs and convenience and involves a lot of potential as a sustainable transportation alternative. (Shaheen et al., 2015; Shaheen, Cohen, & Zohdy, 2016; Machado et al., 2018.)

There has been a sharing economy in the mobility industry before the digital era too. As well as sharing economy has existed for a long, shared mobility has its roots in the 2nd World War, when different car-clubs appeared in the 1940s (Cohen, 2016). Individuals shared vehicles when travelled to the same destination (Geissinger, Laurell, Öberg, & Sandström, 2019). The huge development of sharing economy and ICT-systems have brought innovations among our transportation alternatives. Today, a traveller can hail a private driver and vehicle, rent a car or bicycle for short ride, ride a shuttle based on demand, or even have groceries and other goods delivered in someone's vehicle. (Shaheen et al., 2015..)

Innovations in mobility have been driven by the mass use of the Internet, the emergence of smartphones, which have transformed several aspects of everyday life in less than one generation. This transform has led to various changes in the way people communicate, socialize, work, shop and travel. (Machado et al., 2018.) New ways of paying, tracking, requesting for trips are existing because of technology development (Litman et al., 2017). As sharing economy in general, shared mobility services are formed strongly by the Internet of Things, Big Data, Cloud Computing, information processing, smartphones, modifications in social and cultural trends as well as widespread data connectivity

(Machado et al., 2018). These developed technologies enable transactions to take place on demand, for supply and demand to be dynamically matched and transactions to be accurately measurable in time (PwC, 2015.)

Many traditional economy representatives have been challenged by the sharing economy growth. The traditional car selling business has faced radical changes too when people are sharing cars instead of wanting to own them. Thus, also traditional businesses have started to adopt on the sharing economy boom – some traditional businesses are providing sharing economy services in addition to their core business. (Sitra, 2013.) Typical for these corporations is participating in sharing economy through acquisitions, such Toyota did when buying Lyft and Daimler buying Uber. (MBA, 2019)

Shared mobility has a straight impact on transportation and circulation, meaning that shared mobility can influence the travel patterns, such as travel habits, vehicle occupancy and kilometres travelled. It has also impact on zoning, land use and growth management. Thus, shared mobility has effects on parking minimums, parking demand, and the use of rights-of-way. Shared mobility can also support sustainability by endorsing walking as well as cycling, offer first-and-last kilometres connection to public transit stations, while simultaneously reducing the car-owning needs. What comes to housing, shared mobility can support affordable housing strategies by reducing the parking demand. Through shared mobility, new opportunities for employment can be created, and underutilized resources generated to revenue. In addition, shared mobility offers opportunities to ease environmental issues, such as climate change, greenhouse gas emissions, just to mention few. (Cohen et al., 2016; Machado et al., 2018.)

2.2.3. Shared mobility key areas

According to Scheinfeld, the Commissioner of the Chicago Department Transportation, reminded that "public transit is the core; shared mobility is built on that core" (Move Forward, 2016). A more common thought is that shared modes of transportation are intermediate modes between private and public modes, thus, they may be defined as significant components of the comprehensive and efficient transportation system in urban

areas (Machado et al., 2018). Public transport and shared mobility modes are said to be complementary for each other, they are usually mentioned separately in the studies and shared mobility is usually intending newer innovative travel models, often based on digital platforms. However, Shaheen et al. argue shared modes can be provided by the government, private sector or as peer-to-peer services. The picture below presents the entity of shared mobility service models and shows also the role of public transport in it (Shaheen et al., 2016). The role of public transport will be discussed more in the findings chapter based on the empirical results.

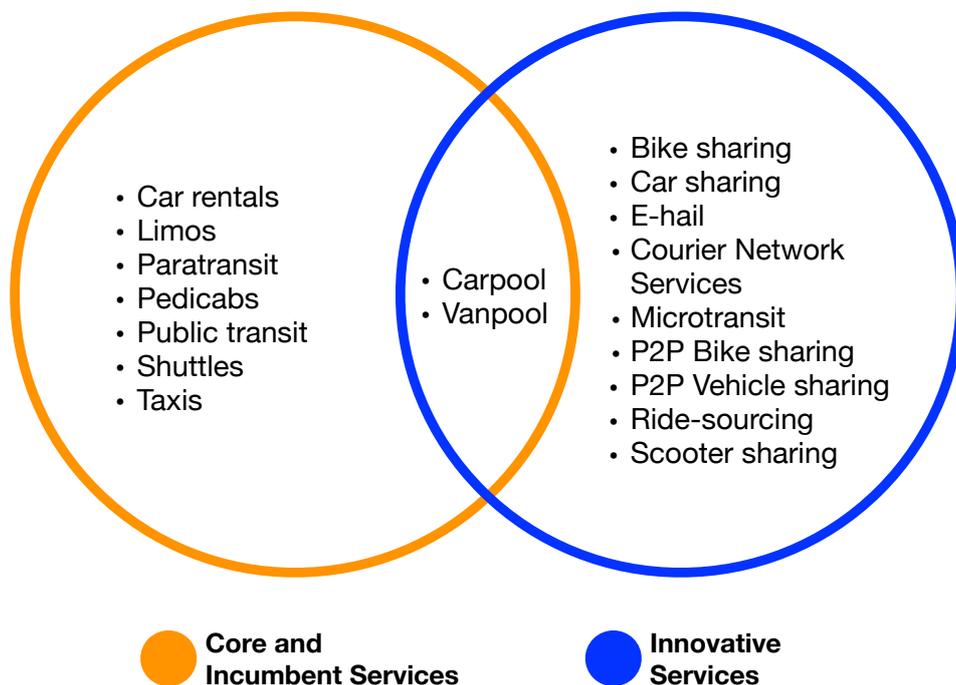


Figure 2: *Shared mobility service models*

Machado et al., (2018), have classified sharing mobility to *carsharing, personal vehicle sharing, bike sharing, ridesharing, and on-demand ride services*. Shaheen et al. (2015) have added that typology also *scooter sharing, alternative transit services, and courier network services*. This study is focusing on the bike and car-sharing since those are the most common vehicles used in Finland, as mentioned earlier. Next, those two shared mobility service modes are introduced.

2.2.4. Carsharing

The core of carsharing business models is to reduce the need for car-owning. One carsharing vehicle has been calculated to replace from 9 to 13 vehicles. (Cohen et al., 2014.) Carsharing benefits for the individuals are costs savings and fewer responsibilities than as owning a car (Shaheen et al., 2015.) – an individual has no insurances, car maintenance or designates parking spaces to worry about. Business to customer carsharing business models have expanded their amount in recent years – there were more than 600 different carsharing providers around the globe in 2014. (Cohen et al., 2014.) To participate carsharing, the user needs to have a driver's license, age, have no violation history and give necessary payment information (Birdsall, 2014).

Roundtrip carsharing is the earliest carsharing model. The cost of the sharing is based on distance, time or annual or monthly fees. Usually, the car needs to be returned into the same location it was picked up. Roundtrip carsharing has had a notable impact on modal shift – people tend to walk and cycle more. On the other hand, one-way carsharing means that members are picking up the vehicle at one station and dropping it off at another. By providing this flexibility, one-way carsharing could enable solving the first-and-last kilometres too. (Shaheen et al., 2015.)

Truly traditional sharing economy model in mobility market is peer-to-peer car sharing, which is called as personal vehicle sharing (PVS) by Shaheen et al. However, there is also hybrid P2P-traditional carsharing model, P2P marketplace and fractional ownership models inside of PVS system. Hybrid P2P-traditional carsharing model requires the consumer to join an organization that maintains its own fleet of private cars as well as low-speed modes through the network locations. Fractional ownership is a model, where individuals sublease or subscribe to a vehicle owned by a third party. To have access to vehicles, individuals are required to take a portion of operating and maintenance expenses. Thus, owners have access to the vehicle they might not otherwise afford, and the actual profit comes from the non-owners and their rents. Similarly, as carsharing, scooter sharing offers one-way and roundtrip sharing, helmet, and insurance as well. (Shaheen et al., 2015.)

2.2.5. Bike-sharing

One of the most sustainable transport modes is bike-sharing, which has begun in the 1960s in Amsterdam. First models of bike-sharing were free bikes, called "white bikes", then became coin-deposit systems, which was followed by information technology-based systems, and the last development phase is called demand-responsive, multimodal systems (Cohen et al., 2016). Many cities are increasingly interested in establishing bike-sharing systems (BSS) to support green and flexible transportation scheme. BSS requires some financial supports, citizen participation, infrastructure, and consumers' loyalty to exist. BSS is usually provided by the government, transport agencies, universities, non-profit organizations, advertising companies or for-profit companies. (Yahya, 2017.) BSS allows users to access the service from a network station on an as-needed basis. Usually, BSS is located in urban areas, they are accessible at all hours, and taking care of the maintenance, storage, and parking costs. (Shaheen et al., 2015.)

Studies have shown that bike-sharing has reduced the rail and bus using, because of costs savings and faster total travel time. Simultaneously in smaller cities, bike-sharing has improved the access to the rails and thus increased their usage. 50 % bike shares in Shaheen and Chain study (2015), reported their car usage has decreased hugely and even 5,5 % sold their vehicle. (Shaheen et al., 2015.)

Many of the bike-sharing models are utilizing technical development. These features ease the billing integration, multimodal access, dynamic pricing to encourage self-rebalancing, real-time transit integration, and system-data dashboards, GPS tracking. Still, this last phase of development is continuing its development. (Cohen et al., 2016).

2.3. Creating shared value

In this chapter novel strategic framework by Porter and Kramer is introduced. That framework is appropriate for this study since it is combining the business perspective and societal perspective, which supports the thesis aim and provides a novel perspective to

view the sharing economy. As sharing economy economic perspective was discussed earlier and its creating business value introduced through the typical earning logics, in this chapter sharing economy creating societal value is presented.

2.3.1. Sustainability

Commonly agreed definition of sustainability is introduced by the Brundtland Commission in 1987 – the idea that current generations should live their lives and use global resources at a rate that does not limit the chances of future generations (Liikennevirasto, 2016; Conserve Energy Future, 2019). In addition, John Elkington introduced the triple bottom line (TBL) in the 1990s to determine sustainability's dimensions. TBL is a framework of three dimensions: social, environmental and economical. The challenge is to measure TBL, not to define it, which explains the critique it has faced. (Sanz, Iñesta, & Del Pobil, 1999). These three dimensions are seen to support each other and they are all required for a company aiming to success (Gimenez, Sierra, & Rodon, 2012). Another definition of sustainability is the following: an organization ability to balance short-term and long-term needs of stakeholders (direct and indirect) through the sale of value-adding goods and services, which are produced in line with the earth's carrying capacity and exert a maximum positive social impact (Porter & Linde, 1995; Nidumolu, Prahalad, & Rangaswami, 2009).

Sustainability strategies give companies a good business sense and a sustainable competitive advantage. Addressing environmental and social sustainability, the company can focus its core objectives better. Sustainability offers many opportunities for business, such as increased revenues, reduced energy expenses, reduced waste expenses, reduces material expenses, increased employee productivity, as well as reduce turnover expenses. (Williard, 2012: 2.) In addition to these "doing better opportunities", sustainability offers the "doing different opportunities" too, which are radical new moves towards systems change (Szekely & Strebel, 2012). On the other hand, companies are expected to observe the specific legislation, such as the Environmental Protection Act and possibly pay Environmental taxes. Depending on the size of the company some environmental reporting is also required. (Pohjola 2003; Sarkkinen 2006.)

Sustainable development is aiming to take care of natural resources adequacy and natural endurance. Sustainability has been seen to realize in the cross–area of the three bottom line dimensions, but recently that idea has faced some modifications. Environmental sustainability is seen as the prerequisite for social and economic sustainability and in the long run, natural resources adequacy and natural endurance are the wellbeing boundary conditions. Thus, environmental sustainability has been modified as the base for other dimensions. (Williams & Millington, 2004; Juurola & Karppinen, 2017.)

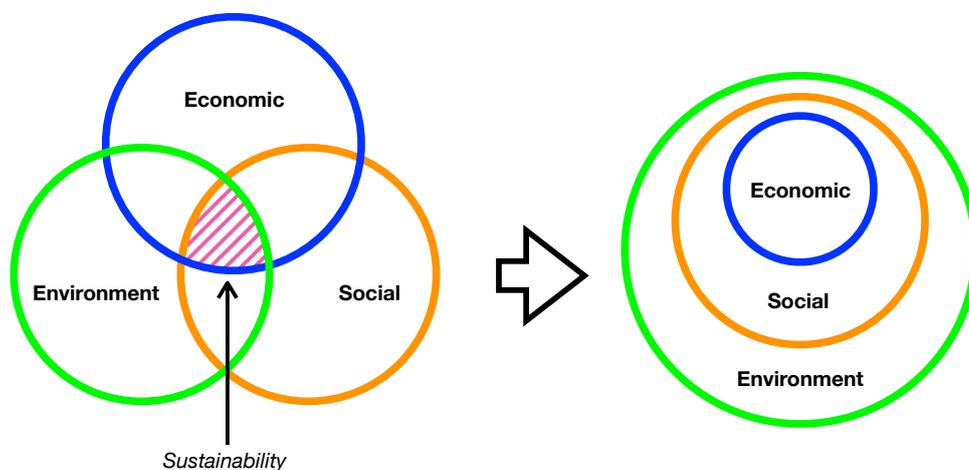


Figure 3: *Three dimensions of sustainability*

(Williams & Millington, 2004; Juurola & Karppinen, 2017.)

2.3.2. CSR to CSV – Creating Shared Value

Corporate Social Responsibility, CSR, is defined as the following: "refers to the obligations of businessmen to pursue policies, to make those decisions, or to follow those lines of action which are desirable in terms of the objectives and values of our society", by its founder Harold Bowen (1953: 6). The 1950s was the modern era of corporate social responsibility, but as it became widely discussed among academics and business practitioners also the environmental perspective started to increase its importance in 1970s. (Formánková, Trenz, Faldík, Kolomazník, & Sládková, 2019.)

CRS pushes companies to be responsible, good corporate citizens, to contribute to the community and to comply with community standards, which is all very important. Nevertheless, too often all that motivation is separate from the core of their business. Many companies are still seeing CSR as a separate section of the business, not at the core of the business. Hence, through CSR many companies are just trying to fulfil the minimum requirements of responsibility in a very passive way. (Porter, 2012.)

According to this problem, professors Michael Porter and Mark Kramer introduced an idea that capitalism should be redefined, simultaneously freeing new wave of growth and innovations. Companies way to seek short-term profit has led us to an unsustainable situation at the cost of our planet and humans well-being. Professors suggested as a solution the framework of *Creating Shared Value*. The concept of shared value is consisting of policies and operating practices that improve the competitiveness of a company while simultaneously enhancing the economic and societal issues in the communities in which it operates. Shared value can be seen as a new wave of CSR, where the responsibility is moved to the core of the business and the company is actively creating as well as expanding the societal value too. Thus, shared value is aiming to identify and expand the connections between societal and economic progress. (Kramer et al., 2011)

"The basic idea of creating shared value is about applying the capitalism model to addressing issues in society. There is no artificial need to limit the way companies make money. Companies should open up their thinking about the ways to create economic value by knowing that there are huge opportunities for them to have a fundamental impact on almost all the major issues in society. The idea is not to get capitalism working against society, but integral to addressing the problems of society. " – (Porter, 2012)

No social program can rival the business sector when it comes to creating innovations, job opportunities, wealth and improve standards of living as well as social conditions. Without corporate and regional competitiveness the wages stagnate, jobs disappear and the wealth that pays taxes and supports non-profit contributions evaporates. (Kramer & Porter, 2007.) Thus, shared value is not philanthropy, social responsibility, sustainability, but instead, it is a new way to gain economic success. The amount of value is seen as extensible, instead of fixed. Short-term perspective to gain business value only is replaced

by a long-term perspective to gain more, societal value too. Porter and Kramer emphasized that it is on companies' responsibility to lead this new way and developed the shared value framework, including three strategic approaches to create shared value. (Kramer et al., 2011.)

2.3.3. Shared Value strategic framework

The shared value can be operationalized through the following three approaches: reconceiving products and markets, redefining productivity in the value chain and building supportive industry clusters at the company's locations. Through this strategic framework, the shared value potential to create new value in the fields of products, value-chain or surrounding clusters, can be seen better. (Kramer et al., 2011.)

Creating shared value is always company-specific because capitalism is always business-specific. There is no general business model for creating shared value. However, most of the companies can discover shared value in all these areas. (Porter, 2012.) Next, three ways how companies can create shared value are presented.

Reconceiving products and markets: Many societal dimensions can be embodied in a product or service. Society has crucial needs, such as health, better housing, improved nutrition, help for aging, better financial security and less environmental crisis. (Kramer & Porter, 2011; 2007.) Companies should rethink, what needs the product is meeting in customers that the company is seeking to serve. Slowly in advanced economies, the demand that meets the societal needs has started growing. (Kramer et al., 2011.)

Additionally, the ways of creating value are seen from a very narrow scope. When analysing the market, the company should better recognize the societal needs and challenges, where the company should proportion their supply. Porter and Kramer pointed out that even with small changes is possible to create brave and innovative new concepts. When the focus is on creating value for both parties, business, and society, the business idea is often possible to scale in a global scope. Additionally, when viewing issues, which

are usually seen as negative challenges of society, new business opportunities may arise and they can be turned to a competitive advantage. (Kramer et al., 2011.)

Redefining productivity in the value chain: Company's value chain includes all the activities a company engages when it does its business. It depicts primary activities, such as inbound and outbound logistics, operations, marketing and sale as well as after-sales services. Additionally, it involves support activities, such as a firm's infrastructure, human resources management, technology development, and procurements. (Porter, 1985.) The company value chain is affected by and is affecting many societal issues – natural resources, water use, health and safety, working conditions and equality in the workplace as examples. These are issues that easily cause costs for companies, but if they are viewed from a new perspective, they can be seen as opportunities. For example, operations to minimize pollution were once seen as costs causers, but have been recently noticed to create business value too through savings. Value-chain includes decisions about energy and logistics, resource use, procurement, distribution, employee productivity, and location. (Kramer et al., 2011.)

To understand the social influences on competitiveness and social ramifications of the value chain, Porter's diamond framework is recommendable to perceive. The framework shows the conditions at a company's locations affect its ability to compete. (Kramer et al., 2007.) The diamond model proposes four interrelated facets, each of them representing a determinant of regional advantage: firm strategy, rivalry, and structure, demand conditions, factor conditions as well as related and supporting industries. Additionally, chance and government as two factors are influencing these determinants, but are not determinants themselves. As an entity, these six factors form a system that is unique and differs from location to location – this system explains why some firms succeed in a particular location. However, not all six factors need to be perfect for the firm to succeed. This framework is one of the several models developed to study clusters, which are discussed next. (Neven & Dröge, 2000; Porter, 1991.)

Supportive industry clusters at the company's locations: Clusters are businesses and institutions around the company. The better the ecosystem, the better the company can

be. (Porter, 2012.) Innovations and productivity are largely influenced by clusters. Clusters include institutions, such as academic programs, trade associations, businesses and also public assets in the surrounding environment such as schools and universities, clean water, quality standards, fair-competitions laws and market transparency. Clusters foster community's efficiency, productivity, innovation and competitiveness. Without a supporting cluster the productivity suffers. (Kramer et al., 2011.) Leaders, in both society and businesses, are more focused on the conflicts between business and society, rather than the possible common goal. Both society and businesses decisions should follow the same principle, shared value – a short-term gain to one will undermine the long-term abundance of both. (Kramer et al., 2007.)

CSV has also faced also critique. It has been criticized about its unoriginality since the same ideology can be spotted in earlier literature. However, Porter and Kramer did form an easily understandable framework of the idea, and thus the framework can be seen as a novelty model. Secondly, CSV ignores the tensions between social and economic goals (Crane, Pallazzo, Spence, & Matten, 2014). Nonetheless, if the mission of the company is aiming for societal good, right from the beginning, there should be no tensions between the different goals. Moon and Jung (2010) have criticized the framework as well, because it limits the scope of forming clusters to domestic and does not consider the international dimension (Moon, Pare, Yim, & Park, 2011). However, the cases in this study are about services which are operating only in Finland at the moment, and at least for now when both cases are still very new, this framework is very appropriate in analysing only the domestic environment.

2.3.4. Shared mobility services potential to create societal value

As the earlier chapter has shown, transportation is having a huge negative impact on the climate through pollutions its causing. Thus, this chapter is introducing shared mobility services creating societal value. Environmental sustainability is seen as the prerequisite for social and economic sustainability and in a long run, natural resources adequacy and natural endurance are the boundary conditions for wellbeing, the shared mobility creating

societal value is focused mostly on the environmental perspective. The societal value is being introduced in two sections – opportunities and challenges.

2.3.5. Opportunities

Sharing economy is not inherently sustainable (Ma et al., 2019), because sharing economy has direct and indirect environmental effects. (Sitra, 2017; Santos, 2018; Geissinger et al., 2019). Nevertheless, the ideology of sharing economy can be perceived environmentally friendly, since the sharing economy has been stated to provide the potential of transitioning societies into the post-ownership economy and increase the age and quality of our products. (Belk, 2014; Heinrichs, 2013.)

The technology involves huge potential to support environmentally sustainable solutions in the shared mobility market, such as hybrid and electric vehicles. Nevertheless, those are still fairly unaffordable for an average consumer. Through shared mobility services, people do not need to own precious vehicles, but when they drive, they could do it sustainably. (Kuehne & Breitner, 2017). A growing concept, Mobility as a Service (MaaS), is based on gathering the different transportation modes into the same platform with a digital platform. MaaS is aiming to offer transportation from place A to place B easily and smoothly, so that switching between public transportation and shared mobility services could be easy and efficient. If a better efficiency level in shared modes and public transit is reached, the GHG-emissions could also be reduced. In order to achieve that positive situation, services need to be well designed, so that using them is more attractive than using a private car. (Liikennevirasto, 2016.)

In the context of urbanization and growing popularity, the interest towards shared mobility has emerged. Urbanization and population growth increase traffic jams, parking demand and polluted air quality. According to the Texas Transportation Institute, the average American person spent 34 hours within a year, delayed in traffic in 2010, when in 1982 the delayed hours were only 14. Moreover, it is forecasted that the number will grow till 40 hours by 2020. Private vehicles spent 95% of their existing time parked, and when they are moving, their average occupancy is even below two persons per car. The

shared mode average occupancy per short distance trips is 2,5 persons per car and 3.5 persons for long-distance trips. (Deloitte, 2014.) According to these transportation challenges, sharing mobility has promoted to provide solutions to noise and inner-traffic in the cities, air pollution problems, and provide benefits to land use, parking demand, vehicles more efficient usage and a number of vehicles in cities. (Shaheen et al., 2012; Cohen et al., 2014; Cohen et al., 2016; Martin & Shaheen, 2011.) If 10 % of private car drivers switched to shared mobility and the ridesharing doubled, global driving hours could save globally 757 million lonely drive hours per year (Deloitte, 2014).

According to Shaheen and Cohen (2016), carsharing increases the number of private consumers sold vehicles or delayed their vehicle purchases, reduces driving kilometres and eased access and mobility for no car consumers. (Cohen et al., 2016; Martin & Shaheen, 2011.) Additionally, shared mobility has a huge potential to reduce CO₂-emissions through reduced driving of private cars as well as reduced car production. Moreover, it may lead to reduced fuel consumption as well as remarkable environmental awareness. (Cohen et al., 2016; Martin et al., 2011.) Cohen and Kietzmann argue that shared cars could repair from 9 to 13 vehicles (Cohen et al., 2014). Thus, CO₂ -emissions could be reduced yearly by roughly 40 to 140 kg/ member of the household by reducing their part of new cars production and maintenance costs (Skjelvik et al., 2017).

The more people use shared modes, the more likely they are to use alternative transit modes, such as walking, cycling, and public transport. Besides the environmental benefits, this is improving the health benefits for humans significantly. (Cohen et al., 2016; Martin et al., 2011; Litman et al., 2017.) Shared mobility enables the number of private vehicles per family to decrease and modifies the attitudes further away from ownership of vehicles, simultaneously increasing the interest towards shared transportation services according to their convenience. (Shaheen et al., 2015.) Many European studies have shown significant reductions in private vehicle ownership – for 10 % to 60 % of carsharing users are selling their vehicle after joining the sharing service (Martin et al., 2011).

Shared mobility could encourage to use public transit by solving the first-and-last kilometres -issue – meaning that shared mobility services could fill the gap between traveller's home and public transit station. In other words, shared mobility has been noticed to have a lot of potential to improve the effectivity of mobility chains (Cohen et al., 2016). Thus, it provides the strategic potential to support cities' efficiencies, competitiveness and all transport modes effectivity as a whole. (Machado et al., 2018.) Personal vehicle sharing has the potential to impact the transportation sector by improving the access and interconnectivity among modes and providing alternatives to vehicle ownership in more geographic locations (Shaheen et al., 2012). Moreover, shared mobility can also provide cost savings for its users and support them to spend less on transportation overall. (Shaheen et al., 2015; Litman et al., 2017.)

Using shared modes, especially bike-sharing, improves health benefits (Martin et al., 2011) and increases the helmet use and cities safety. In addition, public bike-sharing enables the mobility for non-owners of bicycle and minimize the maintenance, storage, and parking needs of the users. The studies in Washington DC has shown bike sharing to slightly decrease bus traveling; 5 % of respondents increased the bus usage, but 39 % of the same respondents' group decreased it. What comes to the trail using, 47 % shifted away, when 7 % shifted to it. 31% of people shifted away from walking, and to it, 17 %. (Cohen et al., 2016.)

According to Litman et al. (2017) research results, private sector shared mobility providers can recognize the different needs of passengers better than public transit could afford. For example, specific needs, such as disabilities, fulfilling services can be provided as a niche service more easily in the private sector shared mobility services. (Litman et al., 2017.)

2.3.6. Challenges

It is important to point out that in some cases car sharing has led to increased CO₂-emissions per person because car-sharing might reduce their public transport using. Skelvik et al. are underlining the rebound effect, price or income effects from the sharing

economy. The first impact of car-sharing is most likely reduced global car production and saved CO₂-emissions as well as other pollutions. However, if the access to car using is easy and cheap, the rebound effect of car-sharing might be increased car driving in total, increasing the CO₂-emissions too. (Skjelvik et al., 2017.) Additionally, the risk, that households keep a personal vehicle they otherwise might sell or even purchase new vehicles to support rentals, has been stated out (Shaheen et al., 2012). However, these effects have estimated to be relatively low, when comparing the current private car culture emissions (Martin et al., 2011).

Another rebound effect scenario for consumers economizing with sharing economy is that the saved money will be used to buy other assets, which might have the same or even worse impact on the environment. For example, if a family is using a car-sharing service and reducing their CO₂-emissions by that, they might use the money saved to buy cheap flights for a holiday, which is probably polluting more than car driving. (Skjelvik et al., 2017.)

What comes to businesses in shared mobility, Sitra (2017) has criticized big companies motives in providing sharing economy services. They do not believe, that BMW, for example, would truly aim to reduce car using culture – they see that as a new path to eventually sell more their services, which lead to same or higher total driving kilometres. (Sitra, 2017).

Many organizations have been calling themselves as sharing economy services because of the positive symbolic meaning of sharing, the attractiveness of new digital technologies and the rapidly growing volume of sharing activity. However, sharing economy has also faced criticism. Sharing economy sites may create class and gender biases or radical hierarchies. For example, a recent study showed radical discrimination among Airbnb users, as non-black hosts were able to charge 12% more than blacks for comparable properties. (Edelman & Luca, 2014.)

In addition, sharing economy can be assessed as a grey zone what comes to taxation and employment. The challenge is the difficulty of monitoring them as typically the resources

providers are not employees of the company providing the platform, thus, the intermediaries do rarely report the data on them. (PwC, 2015.) Moreover, there is less clarity about how sharing economy platforms are impacting on labor conditions. Working conditions and protections have been disregarded as simultaneously real wages have declined. (Schor, 2016.) Thus, in sharing economy market remarkable negotiations and development are needed concerning the current working conditions.

2.3.7. Conclusion of shared mobility services potential to create societal value

Shared mobility still needs public transit on the side of it to reduce greenhouse emissions, even if shared modes can be seen as a competitor for public transport. Shared mobility could extend the catchment area of public transit by filling the gaps between existing public transport modes and encouraging multi-modality usage. Thus, the public sector and private operators are eager to collaborate to drive down costs, increase service and improve customer experience. (Shaheen et al., 2015; Litman et al., 2017; Sitra, 2017.)

The Finnish Transportation Agency has suggested more shared mobility services utilization. (Liikennevirasto, 2016.) Even if shared mobility has also received criticism about its sustainability, compared to current consumption economy and culture, its environmental impacts appear definitely in a more positive light. (Sitra, 2017.) However, shared mobility is still a relatively new research area, and thus, limited survey samples, as well as aggregate-level analyses, may produce inconsistent results of the issue. Considering this, it can be challenging to collect unbiased and comprehensive perception of the societal value shared mobility services are creating. Even if there are abundantly automated traveller activity data, there are relatively less surveys of traveller behaviour across all modes, such as car ownership changes or respondents perception over time. (Cohen et al., 2016.)

Opportunities	Challenges
Technology > trust between unknown people	Rebound effect > increasing total car driving, decreasing public transit
Technology > sustainable solutions such as electricity cars	Rebound effect > saved money spent unsustainably (flight for example)
Technology > integration between different travel modes (MaaS)	Commercial ideology > companies are utilising sharing economy sustainable imago to make customers consume more
Urbanization & Growing popularity > decreasing inner-traffics, better air quality, less vehicles, lower parking demand, effective vehicle utilisation	Grey zone > taxation and employment conditions under the development
Alternative modes > increasing cycling, walking, public transit	
Door to door > fulfil first/last kilometres and increase the use of public transit	
Costs savings > rents cover owning costs & sharing decreases need to acquire own	
Health benefits > increasing walking and cycling causes health benefits and health care savings	
Niche target groups > private provider does need to satisfy all the people as public transit provider has to (disabilities etc.)	

Table 3: *Shared mobility possible opportunities and challenges to create societal value.*

3. RESEARCH METHODOLOGY

Doing research requires multiple decisions to make concerning the subject, the data, and material used as well as the research approach. However, researchers tend to rely on a specific research approach time after time. (Hirsjärvi, Remes & Sajavaara 2004: 121.) Thus, the choices should be considered carefully, depending on the aims of the study. The deepest and most principled decisions are made at a philosophical level, either consciously or unconsciously (Hirsjärvi, Remes, & Sajavaara, 2009: 123). In this chapter, the methodological choices are comprehensively reported – concerning themes like philosophical assumptions, research strategy, research methods, case selection process, data collection and analysis as well as the trustworthiness of this study.

3.1. Philosophical assumptions

Every research is based on a group of hidden assumptions. What makes it even more challenging, is that these assumptions are usually unconscious. These philosophical assumptions may concern topics, such as people, world, data acquisition, just to mention a few. In our everyday life we take most of the things and phenomena for granted (Hirsjärvi et al. 2004: 121), however, we should be aware of these assumptions, due to their huge impact on the base of our study. In this study, the business faculty and its typical ways to do research are influencing the researcher's assumptions. The references are collected mainly from the business field, which means there are most likely some common assumptions concerning the datums, such as economic growth and corporations' purpose to gain profit. To avoid a unilateral perspective also references from different fields, such as Environmental Sciences, were utilized.

Philosophical assumptions, ontology, and epistemology are pondering the existence and nature of science. These philosophical assumptions determine the methodology used in the study. Ontology is a philosophy, which is pondering the existence – what and what kind of things are reality and answering the question "what exists" or "how a certain thing exists". Thus, ontology refers to a researcher's assumptions and understanding of the

world and reality. (Burrell & Morgan, 1979.) Epistemology, on the other hand, is discussing what and how people can know things and what kind of knowledge is the right knowledge, thus answering the questions "how to get information about it". (Koppa 2015; Sirén & Pekkarinen, 2017.) Epistemological choices are often derived from ontological assumptions (Burrell et al., 1979).

This study represents social constructivism, since it assumes the reality is socially constructed and formed by informants (Sirén et al., 2017). Informants in this study are the interviewees, who are assuming the world from their perspective, based on their previous experiences, which are shaping their consciousness and answers. According to Schwandt (1994), in constructivism reality is complex, constructed in the social context and shaped by people's experiences as well as personal perceptions. As interviewees are viewing the study's topic based on their experience and understanding, their construction could be different in other contexts.

In this study, the epistemological assumption is that knowledge is developing through empirical and theoretical dialogue. In addition, this research is epistemologically interpretive, since it is viewing reality as complex and multifaceted. (Sirén et al., 2017.) Due to the complexity of the subject, the study was designed and modified during the process as the interviewees gave additional knowledge to the topic, which is typical for interpretive studies as they see knowledge as accumulating issue. Moreover, the researcher brought prior insight into the subject, which has shaped to study design during the process. (Koppa 2015.) According to the study's philosophical assumptions, the material collected from the interviewees is considered as real. Nevertheless, the researcher is expected to stay objective as the assumptions represent also his/her prior insight and perceptions.

3.2. Research strategy

The qualitative research approach was employed in this investigation since it is suitable when aiming to describe and understand a certain phenomenon. Qualitative research is achieving to see the subject comprehensively and find new perspectives to view it, which is truly important with novelty subjects, (Hirsjärvi et al., 2009: 161) such as sharing economy and shared value. A qualitative approach was chosen for this study since the purpose of this investigation was to deepen the understanding of sharing economy as a phenomenon and business as well as describe what kind of shared value it can create and how.

This work took the form of a multiple case study, which is a popular research method used, when analysing specific phenomenon within boundaries of a specific environment, situation or organization (Dudovskiy, 2019). Since this study aims to provide an understanding of the new phenomenon, sharing economy, in the context of the bike and car-sharing services and at the current state of the environment, case-study is appropriate to this purpose. Case-study offers a real-life context and perspective for the study, which provides rich and valuable knowledge for real-life business decisions too. (Dul & Hak, 2008.) When the theoretical part was focused on sharing economy in general, through the cases it was possible to dive deeper into the mobility market and a single organization perspective. Also, case-study provides holistic and deep knowledge of a specific issue and is suitable, when studying new and complex phenomena (Hirsjärvi et al., 2009). Thus, case-study helps to deepen the understanding of a single organization possibilities and role in the shared mobility market. As this study was a multiple case-study, two cases provided a broader understanding of shared mobility services through their differences. Besides the case interviews, three professionals and active influencers in the sharing economy market were interviewed to provide detached perspectives too.

3.3. Research Method

Material for this study was collected through interviews, more specifically semi-structured theme interviews (Eskola et al. 1998: 86, 89). An interview is recommended if it is predicted that the research topic will raise complex answers (Hirsjärvi et al., 2009:

200) and the topic is just little explored as well as there is just a little secondary data. Interviews allow the researcher to direct the materials collection process during the actual situation, (Eskola et al. 1998: 50.) which was important since this research topic was not yet established and the terminology might be obscure.

In a semi-structured interview, the perspectives and aspects are decided, but the questions may vary with their order and structure (Ruusuvuori & Tiittula 2005: 11). This method is appropriate for asking both what and how questions, (Eriksson & Kovalainen, 2008: 82; Hirsjärvi et al., 2009: 47) as the research objectives were. Additionally, a semi-structured interview allows the interviewees to speak with their own voice. Similarly, in theme interview, the themes and subject topics are decided beforehand and the interviewer takes care of all the themes will get through, but questions have no exact forms or order. Theme interview is more structured than an open interview, but it allows wider possibilities for deeper predictions than a structured interview. (Eskola et al. 1998: 86, 89.)

Since the subject was novel, it was challenging to predict, what kind of answers could rise. Thus, theme interview was suitable, since it provides the flexibility to form the conversation during the interview – it does not take stand how many and how deep interviews there are (Hirsjärvi & Hurme, 1988). Moreover, when the questions are not strictly formed beforehand, it gives flexibility for the interviewer to improvise when new issues arose during the interview (Eskola et al. 1998: 80–91). Since sharing economy, shared value and shared mobility sustainability are all new research subjects, it was predictable that the answers would be complex, unpredictable and thus interview, especially theme interview, was optimal choice to collect material.

One disadvantage of the interview is, that the interviewer personality and communication have always an impact on the conversation tone (Eskola & Suoranta, 1998). To provide an objective analysis as possible, also the interviewer's perspective is provided through the interview guide as an attachment in the end (Ruusuvuori & Tiittula, 2005: 29). Another disadvantage of an interview is interviewee's pressures to answer in a socially acceptable way, especially within negative issues (Hirsjärvi et al., 2009: 201).

3.4. Sampling and Case Selection Process

Qualitative research aims to deepen the understanding of some phenomenon, not searching for statistical connections. Thus, the amount of the interviews collected is not the first prior – quite often the interviewees' amount is not very big since the analysis phase takes such a long time and the interview material is deep (Hirsjärvi & Hurme, 1988). Qualitative research idea is originally researching single case carefully it is possible to get visible the generally meaningful and repetitive issues in the phenomenon (Hirsjärvi et al., 2009: 177). By knowing that and taking into account the scope of master's thesis, the researcher evaluated two cases, besides three additional professionals' interviews, would provide the proper amount of material to analyse, which could bring out generally meaningful issues too. More than two cases could have led to superficial analysis due to the limited resources of master thesis.

Based on the previous points, I chose City Bikes as well as Blox Car as the case organizations for this study. Typical for qualitative research, case selection requires attention and the cases were selected by the following reasons. First, shared mobility market is a relatively new and small market in Finland, thus there are not many organizations to choose from. Second, to provide a versatile picture of shared mobility services, it was appropriate to choose organizations representing different modes of transportation – bikes and cars. As mentioned earlier, the two most commonly used vehicles in Finland are car and bike, thus these two vehicles were represented in the case organizations. Third, since there is no consensus who are the participants in the sharing economy, so it was valuable to choose both public and private business providers. City Bikes is provided by public organizations and Blox Car by a private provider, thus offering perspective to the disagreement of sharing economy different parties and providers. Through these two cases, it was possible to ponder the role of public and private sector and the differences in these transport modes. Fourth, these cases are sharing both existing and for the service use provided resources, which provides an interesting difference between them. Fifth, both cases represent differently funded organizations – City Bikes in a mainly non-profit organization where Blox Car represent the fully for-profit organization. Sixth, the actual assets sharing happens between different parties – in

City Bikes service sharing happens between users and service, wherein Blox Car service the sharing happens among peers. These perspectives provide an opportunity to diversely view shared mobility and bring out the differences between these cases.

City Bikes	Blox Car
Bike-sharing	Car sharing
Public service provider	Private service provider
Shared assets produced for the service	Sharing existing assets
Non-profit organization	For-profit organization
Sharing: B2C	Sharing: P2P

Table 4: *Case organizations main differences*

City Bikes is service sharing bicycles available in Helsinki and Espoo. Additionally, the city of Vantaa will launch own city bikes too in summer 2019, but they are operating with different service. In Helsinki HKL, Helsinki City Transport is responsible for the City Bike system and in Espoo, Espoo City Technical and Environment Services. The system is operated by CityBike Finland. HSL, Helsinki Region Transport Authority is responsible for marketing and communications, and the marketing space is sold by Clear Channel. The main partner of the city bike service is HOK Elanto. Costs are met by advertising, sponsoring and usage fees. There are 3,450 bikes in summer 2019, which means expanding to East- and North-Helsinki with 88 new stations and 880 new city bikes. (HSL, 2019). The interviewee was Tarja Jääskeläinen, Senior Advisor at HSL. She has years of experience in City Bikes and sustainable transportation, thus she was a truly valuable interviewee for this study aims.

Blox Car is "AirBnB for cars", providing rental cars all over Finland. It is an affordable, easy and most importantly safe peer to peer car-sharing service. Blox Car is a part of the growing Shareit family, through which in the future everything from cars to boats will be shared. Blox Car has earned " The best service supporting sustainable development in Finland 2018" -title from Sitra. Blox Car has grown rapidly doubling its number of users

during 2018 – having soon more than 9000 users, 600 cars and 10 000 renting days. (Blox Car, 2019 & Shareit, 2019.) At the beginning of 2017, Blox Car had not even 2 000 users, thus the service grows exponentially. Blox Car's mission is "Create the safety and convenience digital market place for peers to share their private cars" and vision "Be the leading example in the sharing economy, promoting sustainable mobility by optimizing the usage of your car" (Santeri Petrell, 2019). Blox Car's representative in the interviews was Santeri Petrell, Chief Marketing Officer of Blox Car.

To provide an independent point of view of the topic, three professionals and sharing economy influencers were interviewed too. Pasi Mäenpää, Docent of Urban Sociology the University of Helsinki, has been active as a citizen activist and a researcher in the field of sharing economy. His professionalism provided new perspectives especially to the social perspective of the research topic. Second researcher, Juhana Venäläinen, Cultural researcher at the University of Eastern Finland, offered deep understanding of the work and economic changes, perspective to new forms and the uncertainty of the work-life. The third professional was Henni Ahvenlampi, sharing economy expert as a citizen and in her previous works. In addition, Ahvenlampi is an executive director in Helsinki Cyclist and active influencer in the shared mobility field. It was obvious there were not many researchers studying the sharing economy, but these three professionals were specified slightly on different aspects of sharing economy, which provided an opulent interview material for this study

3.5. Data Collection and Analysis

As suggested in the methodology literature, theme interviews were based on an interview guide of themes and open questions to ease the interview process. The interview guide was fairly broad because the research topic is not an established entity and through a broad variety of questions all the significant matters could get probably covered.

Since the theoretical framework faced some modifications during the process due to external causes, additional interviews were inevitable. The case organizations'

representatives were interviewed twice, the first face to face and second via phone and the three other interviews were held once, two of them face to face and one via video call. According to Hirsjärvi and Hurme (2009), a phone interview is lacking conversation visible hints. However, all the interviews included video or real-life face to face connection at least once so that the researcher was able to create a picture of interviewees talking habits, which in turn helped to analyze the interviews later. All the interviews were approximately from one hour to two hours long, depending on the interviewee's volubility.

As typical for qualitative research, especially for abductive perspective, the material is analysed and collected partly in parallel – in this study part of the interview were analysed while the second interview was not done yet (Hirsjärvi et al., 2009: 218). Abduction can be described as a way to combine deduction and induction in one research process. It is moving from everyday descriptions and meanings to concepts that create the basis of an understanding of the phenomenon described. (Eriksson & Kovalainen, 2008: 23.) An abundance perspective to this study analysis is justified since although there is some research on this subject, there is no consensus about it between different researchers. Thus, an abductive analysis might bring something new into the current literature of the topic. Through this kind of slightly complex process, the researcher was able to update the direction of the study, when more information arose from both theoretical and empirical perspectives.

When analysing the qualitative material, the aim is to create clarity about the data collected, hereby provide new information about the subject. It is important that analysis summarize the text, but do not leave out any relevant information. It can be said, that the analysis phase is the most challenging step in qualitative research. (Eskola et al. 1996: 138.) In theme interviews, the themes are a suitable way to organize the material before analysing it. To build a working theme pattern, the dialogue between theory and empirical material is crucial. The analysis is not just citing interviews since the answers of the interviewees are not any results as such. (Eskola et al. 1998: 152, 182.)

The material was processed with theme-analysis, thematizing, typical for theme interview (Hirsjärvi et al., 2009: 218). The theme construction is shown in the figure below. All texts were transcribed from the interviews because the questions were well designed that the conversation did not go too much out of the context. It is important to mention that the interview was held in Finnish and later translated to English, which impacts slightly to the analysis, especially when translating terms. However, the researcher did not cite a lot of the interviewees, so that most likely the translating affected not significantly.

The framework below illustrates the consensus regarding issues and central topics, which this study is aiming to contribute. Based on those issues, the interview questions and themes were constructed. The interview questions were the same for all, but the focus was more general than any company-specific for the three professionals.

Table 5: *Constructing interview questions and themes based on theoretical statements.*

Research objectives	Theoretical statements	Interview questions	Themes
<i>What are the main characteristics of sharing economy?</i>	No consensus regarding sharing economy definition (Kumar et al., 2018).	Based on your experience and understanding, what is sharing economy?	Sharing economy & participants
	The broad/old classification of sharing economy: P2P, B2P, G2P and B2B sharing, the new classification: P2P sharing only. (Lahti & Selosmaa, 2013: 114–115).	Who are the participants in the sharing economy? Who are the typical users in your service?	
<i>What are the main characteristics of sharing economy?</i>	The more people use shared modes, the more likely they are to use alternative transit modes. (A. Cohen & Shaheen, 2011; Martin & Shaheen, 2011; Litman et al., 2017).	What is the purpose of your service?	Shared mobility
	Shared mobility extends the catchment area of public transit, solving the first-and-last kilometers issue (S. Shaheen et al., n.d.).	What is your service role in the transportation?	
	Shared mobility is among rare solutions towards more sustainable tomorrow. (Sitra, 2017)	How is your service influencing in walking, cycling, car using and (other) public transport?	
	The rebound effects of sharing economy. (Skjelvik et al., 2017).	Evaluate your service net impact on the environment?	
<i>What are the main characteristics of sharing economy?</i>	The drivers: cultural change, technological development, environmental crisis, economic crisis and business opportunities. (Lahti & Selosmaa, 2013: 58). -- sharing underused assets. (A. Posen, 2016)	From your service point of view, what do you see as the drivers behind the rise of sharing economy?	Drivers
<i>What are the main characteristics of sharing economy?</i>	-- optimization of sub-utilized resources in society. (Muñoz & Cohen, 2017)	What resources is the service aiming to utilize more effectively?	Shared resources
	-- a temporary access to products and services. (Santana & Parigi, 2015)	Does the resources need to be idle capacity?	
	Crucial conditions for sharing economy: critical mass, idling capacity, belief in common good and trust between strangers. (Dillahunt et al., 2015; Lahti & Selosmaa, 2013: 23).	Could you tell about the business logic used in your service?	
<i>How shared mobility services can create business value?</i>	Business logics by Botsman. (Botsman 2012)	What is the critical mass of users for your service to operate properly?	Business perspective
	The shared value: reconceiving products and markets, redefining productivity in the value chain....(Kramer & Porter, 2011)	What is the role of trust in your service?	
	Company value chain is affected by and is affecting many societal issues. (Kramer & Porter, 2011)	How the belief in common good and reciprocity are seen in your service?	
		Describe your company value chain?	
		Which customer needs the service is aiming to fulfil?	
<i>What societal value can shared mobility services create?</i>	Shared value aims to improve the competitiveness of a company while simultaneously enhancing the economic and societal issues in the communities in which it operates. (Kramer & Porter, 2011)	What societal challenges the service is aiming to respond?	Societal value
<i>What societal value can shared mobility services create?</i>		What cluster you can identify from the environment it is operating?	Sustainable transport
	Clusters foster community efficiency, productivity, innovation, and competitiveness. (Kramer & Porter, 2011)	How the clusters are impacting on your service and how your service is impacting on the clusters?	
	Leaders in both society and businesses have focused on the conflict between them, but not enough the intersection points of them. (Kramer & Porter, 2011)	Is there still under-utilized potential in the surrounding clusters?	
		What could be the best scenario for the sustainable transport?	
		What is the role of your service in that scenario?	

3.6. Validity and reliability

There are classical criteria, reliability, and validity, to evaluate the trustworthiness of research. Validity infers to how well the study represents the matters and answers to the questions it aims to answer – methods and meter not always respond to the reality researcher aims to study. Reliability refers to how repeatable the results are – how easily the same results can be achieved with the same methods. (Hirsjärvi et al., 2009: 227–228.)

These criteria are originated from quantitative research and faced criticism of whether the criteria are suitable for qualitative research. A case-study researcher might think all the cases are unique, and thus these classic criteria do not come into question. (Si. Hirsjärvi et al., 2009: 227–228.) Hence, the researcher should all the while ponder the decisions made and critically view the trustworthiness of the research in different phases of the research (Hirsjärvi & Hurme, 2008: 188–189). This study researcher tried to strive for the quality of the data collection by deeply pondering the interview questions aims, possible answers, and extra questions. Additionally, two separate interviews were held for case organizations' representatives, which enabled both parties to maintain a suitable level of alertness during the conversation. As firm representatives carry always the commitment to the firm, it was important to interview independent parties too. In total, five theme interviews were held and the material saturation was met in the common themes. According to researcher's estimation, the materials gathered to promote the phenomenon and research aims significantly well. What comes to the reliability of the study, the research process was reported carefully and in detail, to reach an appropriate level of reliability (Hirsjärvi & Hurme, 2008: 186). The role of the researcher and the nature of conversation uniqueness has still impact on the results and thus pure reliability with the method used in this study is impossible to reach. Moreover, the background and individual knowledge of the researcher is surely having an impact on the philosophical assumptions of the study, theory selection, and themes constructing. Also, the researcher's skills to interview are affecting the quality of the interview situation. (Hirsjärvi et al., 2009: 200.) As the researcher was a quite experienced interviewer, organized

approximately 100 similar interviews before at work environment, the interviews were held properly.

Better validity could be ensured by triangulation, in other words applying different methodologies, methods, theories or researchers. The triangulation of theories was applied since the theories were collected from several different fields. Moreover, member check was done, meaning that all the interviewees have checked and verified if they agree with their answers and researcher interpretations about them (Eriksson & Kovalainen, 2008: 293). However, there might be a triangulation problem, since only one person from the case companies were interviewed. Another triangulation problem is that material was collected mostly through the interviews and webpages only. Since Blox Car is a relatively novel company, they barely have any additional material than webpages. Thus, the interview and webpages were the most appropriate as well as only possible material sources. Also, since the subject was so new, the interview was providing the best opportunities to understand the phenomenon comprehensively, compared to general reports.

4. FINDINGS

In this chapter, the key empirical findings of the study are described and analysed. The material was processed as a theme-analysis and the themes were formed as shown in Table 5. The themes were categorized into three groups, based on the research objectives. The research objectives were not asked in the interview, just used to categorize the other themes. The first research objective was: *What are the main characteristics of the sharing economy?* Under this objective, the following themes concerning sharing economy in the macro-level were categorized: sharing economy & participants, shared mobility, drivers and shared resources. The second research objective was: *How shared mobility services can create business value?* Under this objective, the theme of micro-level business decisions and crucial conditions a single organization need to consider, were involved. The third research objective was: *What societal value can shared mobility services create?* In this group, themes about macro-level societal impact were involved, such as societal value and sustainable transport.

To avoid unnecessary repeating of words, in the following text City Bikes is being used as a singular name for the HSL City Bikes -service. This chapter is structured by the themes, and every theme is organized as the following: first, the company-specific findings are introduced and concluded in a table, which is followed by the independent sharing economy professionals' and active influencers' answers, Mäenpää, Ahvenlampi, and Venäläinen.

4.1. Theme 1: Sharing economy & participants

HKL, Helsinki City Transport and Espoo City Technical and Environment Services run the City Bikes system, which is administered by separate private business; CityBike Finland. Additionally, HSL, Helsinki Regional Transport Authority, is responsible for the marketing and communications of the service. This creates an interesting combination of government and business parties, co-operating the service. However, the service is part of the overall public transport travel chain. (HSL, 2019.) According to City Bikes representative Tarja Jääskeläinen, City Bikes is bike-sharing service, aiming to support

and supplement public transport network as one mode among the others. Jääskeläinen argued, sharing economy as *sharing the use of certain assets – organized by businesses, government or private people*. This goes in line with the broader classification of sharing economy, as public transport is seen as a core and incumbent mode of shared mobility service modes and possible to be provided by the government too (Machado et al., 2018). City Bikes could also be called as collaborative consumption service, as Blox Car representative Santeri Petrell concludes:

"City Bikes is sharing economy service as it is a concept sharing and using resources effectively, however, usually in the sharing economy, the sharing happens between peers. Thus, City Bikes could be called collaborative consumption service. Typically, there are two to three parties in sharing economy – service enabler, assets owner and user. "

That illustrates the significant difference between City Bikes and Blox Car – City Bikes has only the service enabler side and assets' user side, where Blox Car has two customer sides, the cars' owners and users as well as the service enabler itself.

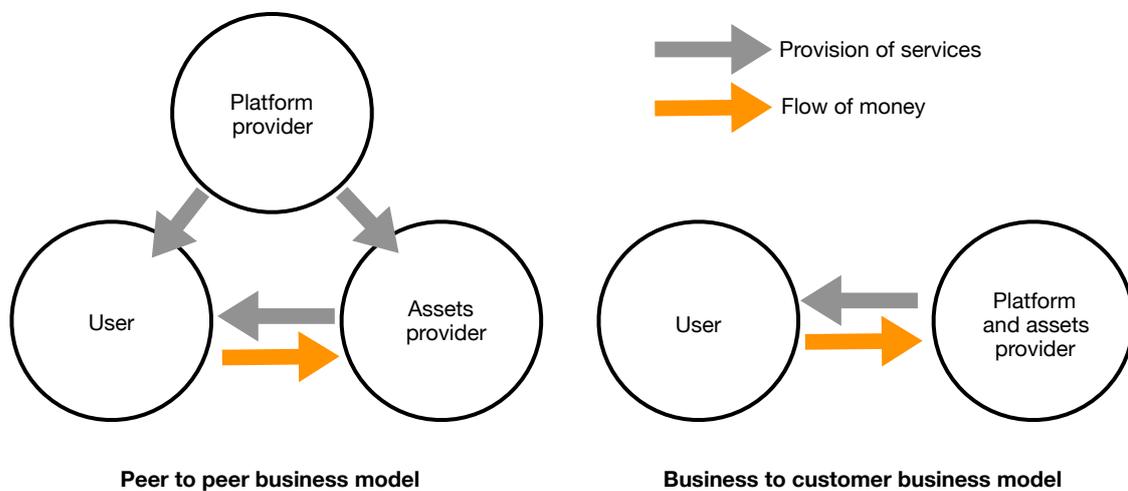


Figure 4: *Sharing economy different business models*

According to Jääskeläinen, most of the City Bikes users are already public transport users. That fits together with the City Bikes aim, to be part of the overall public transport and to support it. Interestingly, as Blox Car has two customer groups, they represent different reasons to participate in the service. Car owners represent a more diverse group of people – families with two cars, young people and even retirees. Petrell explains that people

provide their cars for rent for different reasons and in different life situations. Some families truly need two cars in everyday life, but usually during the weekends, the cars are unused, so they rent their cars to save on car expenses. On the other hand, retirees might have such a flexible timetable, that this kind of irregular renting is possible. On the contrary, Blox Car cars' users represent a more heterogeneous group of people – usually approximately 35-year-old, both men and women, highly educated, living in the cities and open for this kind of services. Petrell evaluated that high education correlates with the awareness of the service's ecological perspective, which could be one of the main reasons for users to rent a car instead of buying one. Thus, Blox Car is serving several different customers' needs, as City Bikes is having a narrower scope of needs to satisfy.

On the other hand, Blox Car is fulfilling the criteria of the new sharing economy, since sharing happens between peers. Moreover, Blox Car meets the criteria of the new sharing economy, as it is sharing idle capacity. Petrell describes sharing economy as *sharing of already existing resources and utilizing all of their economic and usage potential*. This is discussed more in the next theme, shared resources. These results indicate that the provider of sharing economy service and the participants depend on the scope sharing economy is being classified. Both of the cases, City Bikes and Blox Car, represent sharing economy – as a broad and new classifications.

A possible explanation of why bike-sharing might be understood as sharing economy instead of public transit, would be the separate nature compared to other public transport modes. City Bikes allow the cyclist to use the bike as its own for the limited time, as routes, stations, and timetables are under the user control, which resembles the ownership flexibility and freedom more than in the other public transport modes. Buses, metros, trains, and trams move the masses and are hardly ever owned or guided by an individual traveller. That feature creates the opportunity to provide temporary access and control to bikes, which could be difficult in the other public modes. Thus, bike sharing is easier to perceive as shared mobility service than other public transport modes.

	City Bikes	Blox Car
Sharing economy participants & providers	<ul style="list-style-type: none"> -Organized by peers, businesses or government → broad classification -One customer group, mostly already public transit users -City Bikes are moving singular users → easier to view as shared mobility than other public transit modes, which are moving crowds 	<ul style="list-style-type: none"> -2 to 3 parties (service enabler, assets owner and user), sharing between peers → new classification -Two groups of customers, car's owners, and users

Like many other researchers, Mäenpää, Venäläinen, and Ahvenlampi argued that there is no consensus of sharing economy definition. Mäenpää questioned the need for such specific definition at this stage and commented that it is more important to find a common vocabulary to speak about the topic that different parties may participate in the conversations. Mäenpää uses the sharing economy as an umbrella term for a broader scope of activities including circular economy activities as well. Mäenpää explained that in sharing economy, products are used regardless of the ownership. In addition, Mäenpää underlined that the core of sharing economy is citizens' greater role in the production and delivering of different commodities and products – citizens are not just consumers. Also, businesses and government may have new roles, being not just the service providers. Thus, Mäenpää sees all businesses, government and private people being possible providers for the sharing economy services or activities, if the citizens' role is something else than just a consumer. However, Mäenpää concluded that either of these definitions do not apply in all the situations – sharing economy may also be something, where citizens have the traditional consumer role, such in many car renting services. According to the broad classification, Mäenpää counts City Bikes as sharing economy too, since the resources (bikes) are shared and used through something else than ownership, which is typical for sharing economy.

Also, Ahvenlampi counted private citizens, private, public and third sectors as potential provider and participant for sharing economy services. Ahvenlampi saw as the most important aspect in sharing economy, that a certain service respects the environment and people, instead of limiting who may be the service provider according to exact definition. Ahvenlampi argued that sharing economy is having such a positive clang at the moment that firms call their services as sharing economies very pleasantly, as it leads to positive

associations in customers minds. In addition, Venäläinen pointed out that there are a lot of political tendencies impacting on the sharing economy definition – in different contexts, different features are emphasized depending on the parties motives.

These results indicate that there is no inclusive consensus of the sharing economy definition. Sharing economy professionals and influencers did not see it significantly important to limit sharing economy's definition too strictly, more important is to guarantee different parties' ability to take part to the common conversation about it to develop the market. Ahvenlampi mentioned gig-economy, platform economy, and collaborative consumption as synonyms she had used in the conversations concerning sharing economy. It seems that all the professionals are willing to permit the sharing economy term use if the service ideology is respecting environment and people, somehow executing the assets use regardless the ownership, and creating citizens a new role, that's not just the role of consumer. Most likely as the sharing economy market develops, there will be specific terms for different service types, which are now included under the same sharing economy term or synonym, collaborative consumption.

4.2. Theme 2: Shared mobility

According to Jääskeläinen City Bikes popularity has increased yearly. In 2016 there was a lot of talk about climate change and cycling became even greater trend than before. In addition, Jääskeläinen summarized, that cities have started to develop and invest in cycling infrastructure and maintenance. Also, Petrel inferred all the signs referring to the sharing economy to raise shortly.

Venäläinen alleged that walking, cycling, and public transit use will increase in the future. Venäläinen argued that as Finnish people have summer cottages around the rural areas, private cars are essentiality in the future too, so shared cars could replace more owned cars. He added that car sharing might partly decrease the public transit usage capacity, but on the other hand shared cars will increase the efficiency of car using. Mäenpää asserted that shared mobility's role in Finland is just in the beginning. Ridesharing is now based on Facebook, but probably that market could expand through better digital

platforms. Mäenpää cited a German research, which had stated car-sharing market to expand as the self-lock prices will decrease. Mäenpää also explained that citizen organized sharing economy services will stay more affordable.

In the short-term period, Mäenpää doubted that private car use would decrease. However, he evaluated that in longer-term private car ownership could decrease, but the total amount of private cars driving could stay as it is. Thus, there would be fewer private cars driving in the traffic, less ineffectively used parking areas and less traffic. Additionally, old cars would run out faster and new lower polluting cars replaced them.

4.3. Theme 3: Shared resources

Many definitions, also Petrell's, emphasize that sharing economy is about already existing, idle resources' more efficient utilization through sharing. Nevertheless, Jääskeläinen suggested a different perspective on this question. She moved the focus from service's shared bikes to the external cycling infrastructure – City Bikes is supporting the utilization of existing cycling infrastructure as effectively as possible. According to this, also City Bikes service is improving already existing, underutilized resources usage through sharing. However, the case of Blox Car is a more simple one, since the service is a platform for peers to share and rent underutilized cars, the concept is meeting the criteria about the idle capacity sharing in sharing economy.

	City Bikes	Blox Car
Shared resources	-Service may share and utilize more effectively also external resources, such as cycling infrastructure -Service internal resources are produced for the service use	-Shared resources are already existing resources

Ahvenlampi mentioned the same example as City Bikes representative Jääskeläinen, the sharing economy may utilize the service external resources too. However, Ahvenlampi argued the service final result is the main issue – if the service is creating somehow a

positive impact, it does not matter if some production was needed for the service, City Bikes as an example. The bikes are produced for the service, but the health and the total environmental benefits are so positive and savings in health care costs too, that the net impact is still more positive, said Ahvenlampi. Also, Venäläinen counted City Bikes as sharing economy as the bikes are such effectively utilized. Mäenpää sees the real sharing economy, sharing already existing resources, but he wants to keep the definition broader if there are ecological and social motives behind the service. Often the public sector is seen sharing public assets, which is not sharing economy – public sector rather coordinates the public assets. Nevertheless, Mäenpää counts City Bikes as sharing economy because it is about sharing in a new way – bikes are used not through owning but the temporary access. Mäenpää would call City Bikes rather as public transit decentralized mode.

Put together, these results indicate that idle capacity may be viewed as internal or external resources. Moreover, the core idea seems to be utilizing assets more effectively than through ownership, but the zero production was not seen so uncompromising. Thus, the definition of sharing economy should not be too narrow. The most important thing is to try to guarantee necessary benefit and wellbeing needed, with less physical assets.

4.5. Theme 4: Drivers

Both Jääskeläinen and Petrell mentioned climate change and environmental issues among the first drivers in the rise of sharing economy. Jääskeläinen argued that people are more aware of environmental issues than before and hoped that climate change improves the interest towards shared mobility, not only momentarily, but also permanently and would lead to actual actions. Jääskeläinen concluded:

“Transportation causes 1/5 of the total CO-emissions, which in turn fastens the climate change. There are many things people can't influence in, but mobility is a concrete issue that individuals can have an impact on – if there are alternative transport modes available.”

Nevertheless, Jääskeläinen underlined that for individual people climate change rarely is the reason to cycle or start cycling, more important drivers are safe cycling routes as well as a fast and easy ways to move. Additionally, Jääskeläinen explained that the trends of cycling and healthy lifestyle are improving the attractiveness of cycling.

As known, sustainability provides value simultaneously for many parties and it is seen as mutual action towards sustainable transportation. According to Jääskeläinen, cycling infrastructure investments and development in urban planning, have played a crucial role in the rise of cycling – making the cycling more convenient and attractive, especially for new cyclers. Jääskeläinen mentioned also that transport regulations have recently developed towards more open attitude for new transportation modes. Thus, there are fewer regulatory barriers for new shared mobility entrants. Petrell pointed out also the change in mobility thinking, how traveling is seen more as chain and service – MaaS, Mobility as a Service, as an example.

What comes to the sharing modes, according to Jääskeläinen and Petrell, Millennials, people born between 1980 and 2000, are more open for the sharing. Both interviewees mentioned that for the younger generations, owning a car is not a status or image question anymore, young value access over ownership. Petrell explained that people don't want to spend their money on owning things, as it is relatively costly too – nowadays people spent their money rather to experiences.

	City Bikes	Blox Car
Sharing economy drivers	<ul style="list-style-type: none"> - Climate change as a driver for sharing economy, but not the main reason for individuals cycling - Individuals reason to cycle; safe routes, easy and fast way to move, health benefits and cycling trend - Regulations and cycling infrastructure development - Younger population open and positive attitude towards sharing 	<ul style="list-style-type: none"> - Climate change and environmental awareness - Owning and consumption culture changes - Change of thinking towards travel chains - Cost savings - Younger population open and positive attitude towards sharing

Ahvenlampi mentioned that many sharing economy services require some it-skills from its users, as many services operate via digital platform. Also, Venäläinen pointed out digital platforms' salience for new sharing economy services and Mäenpää explained that the new way to use services through apps and digital platforms, can be seen as trendy and attractive among users. Thus, the younger population, Millennials, may use and feel more comfortable using sharing economy services compared to previous generations, because of their better digital and technological skills as well as knowledge.

Ahvenlampi explained that people have slowly started to value the idea of sharing instead of owning, however, there is still more interest towards renting someone else's assets than to give own assets for others to use. Venäläinen pondered the sharing economy development as following:

“We are transforming from owning culture to access culture, where technological platforms are playing a crucial role. – – Minimalism, as an example, has grown significantly lately, because people want a more simple life. – – Owning is very arduous, temporary access is easier which probably attracts nowadays people.”

Mäenpää underlined that the ecological ethics have impacted hugely on the customers' side in the rise of sharing economy. In addition, he explained that sharing economy has a positive vibe and image, so that is seen as ecological, even though there are no guarantees that the ecological benefits are even true. Mäenpää also pointed out that people willing to economize. Ahvenlampi pondered that sharing economy is being used either within well offs who have spare time and participate to sharing economy because they are interested, but also more underprivileged people who participate to economize as the only option either as a workforce or service user.

There are several possible explanations for these results. These results indicate that Millennials as a younger population are more likely to master better the use of digital applications and services as well as technology used, so that they are most certainly more confident, interested and able to use a digital platform-based sharing economy services than generations before. Nevertheless, viewing people in generations is always generalization – there are always individuals representing different behaviour than the

average mass of the generation. What comes to the owning and sharing trends, the technological development plays again a significant role – before sharing enabling and easing technologies, temporary access or contact with unknown people was more limited and this kind of sharing trend was hardly possible. Communicating regardless of the time, location, own networks or even a common language is possible and opens more opportunities to consume differently.

Another possible explanation for generations' differences could be a certain history of a certain era. For example, generations that experienced the era of 2nd World War, have seen very different Finland, where resources were scarce and appreciated differently than today. On the other hand, Millennials have born to an era where the standard of living was significantly different and economic growth even criticized. The environmental crisis will most likely concern more Millennials' future than older generations', thus Millennials might adapt more easily to new sustainable lifestyles which are aiming to constrain the climate change.

Uncertain is, how this post-owning trend will develop and what are people preferences in the future. If all the people preferred renting over owning, it is uncertain who would own the shared resources. However, according to Jääskeläinen, there will be always private cars in rural areas at least, since it is not cost-effective to invest and build public transit there. Thus, probably there will not be a situation that all the assets owners would change to renters. If this is the case, businesses and the public sector would most likely utilize this opportunity by offering the needed resources.

4.6. Theme 4: Business logic

Petrell argued, that all the signs refer to the rise of sharing economy as shared mobility market attracts new competitors all the time and offers a lot of business opportunities. So far Blox Car has been able to operate alone in Finland without direct competitors and the rare indirect competitors are seen rather as partners. This situation is just momentary, since there are surely new competitors coming to the market, which Petrell see as a

positive issue, since competition is always good, simultaneously promoting the small sharing economy market in Finland. However, Blox Car has pressures from both customers' sides to maintain the appropriate service experience level. To satisfy customers' expectations, Blox Car is applying for international investors and financial institutions support for the first time.

To gain any business value, the company has to have a plan for their business logic. The business logics of City Bikes and Blox Car are analyzed through business logics introduced by Rachel Botsman. City Bikes costs are met by advertising, sponsoring and usage fees. The marketing space is sold by Clear Channel and the main partner is HOK Elanto. City Bikes is selling three different service packages, day- (5 €), week- (10 €) and the whole seven months season -packages (30 €). All the packages allow unlimited 30-minute bike rides and 30-minute exceeding trips are charged 1 € for each additional minute. (HSL, 2019). Based on that information, City Bikes is having features of a few different business logics: steady membership fee, tiered subscription fee, and membership plus usage -business logics. Steady membership fee would be appropriate since if the rides are not exceeding the 30 minutes maximum time, there is no other fee than the steady day, week or season membership fee. On the other hand, since City Bikes has different packages, it could have also the tiered subscription plan. However, the membership plus usage -business logic is the best to describe the City Bikes way to earn money because it takes account the additional fees from the 30 minutes exceeding rides too. Like a membership fee, it includes a day, week or season membership fee, and additional fees are charged based on usage. In this case, additional fees are collected on 30 minutes exceeding bike rides.

Blox Car's business logic is a service fee, which is approximately 30 % of the car renting prices. Additionally, they offer marketing packages for their customers, which help in the car renting marketing. Thus, Blox Car has a service fee as its business logic but offers marketing help as an additional service. They are planning to expand the offer of these additional services in the future, in form of insurances as an example.

According to Botsman and Rogers four crucial conditions for sharing economy, there are significant differences between City Bikes and Blox Car. First, critical mass is truly critical only for Blox Car but does not play such a crucial role in City Bikes. City Bikes is aiming to encourage as many people as possible to use the bikes and start cycling, thus seeking the big masses to use the service. City Bikes has not similar pressures according to the critical mass – the service is usable for customers regardless of the number of other users. On the other hand, critical mass for Blox Car is critical indeed. As mentioned earlier, Blox Car has two customer groups to serve, car owners and users. Since Blox Car is providing only the platform, the shared assets quality, amount and alternativity depend on the car owners registered in the service. To satisfy the car owners, there should be enough appropriate car users in the service. On the contrary, for satisfying service experience for car users, there should be enough alternative cars to choose from. Thus, the critical mass concerns both sides, the car owners and users. If the sides are unbalanced the service cruds, according to the law of supply and demand intersection. Blox Car view the critical mass through the number of cars since without cars there is no service at all – by the end of the year 2019 Blox Car aiming to gain 7500 new cars registered in the service, each having three to four rents per month. Thus, the main differences between City Bikes and Blox Car are the number of participants and their dependence on each other as well as by who the assets are being shared – is the supply predictable or depending on the other parties.

The second condition concerned the idle capacity, which was discussed earlier. Even if the bikes of City Bikes are produced for the service use so that they are not idling, existing resources, City Bikes is enhancing the cycling infrastructure better utilization. Moreover, City Bikes is tracking the usage of a single bike and trying to ensure their effective usage. According to Jääskeläinen, now single bikes are being ridden approximately nine trips per day, which is better than most of the similar services around the world. Thus, City Bikes impact to utilize more effectively idle capacity focuses on external resources, cycling capacity, not its own assets, bikes. Blox Car, by contrast, is sharing idle capacity, already existing cars.

Belief in common good and trust are essentials for the sharing economy to operate, according to Botsman. Technology has facilitated the trust creation hugely. Both City

Bikes and Blox Car are utilizing technology as suggested. Customers need to register to the service and give all the necessary information about them for the service enabler. According to Jääskeläinen, through registration, it is always possible to track who and what bike is being used, which enables that bikes are returned and treated well. Registration in Blox Car creates also safety. If something happens, the service has the necessary information of the car users and owners, thus it is safer than renting through Facebook or Tori for example, where the agreement happens only between two random people. Additionally, Blox Car's car owners and users rate each other after the sharing – good ratings work as a positive advertisement for the customer. The belief in the common good is seen as the mutual trust that cars are shared and returned as the condition agreed. As a conclusion, Petrell pointed out the following:

“Trust is one of the most important issues in the service. First, people attitudes towards sharing cars was a challenge, but when the trust is managed to create better, the attitudes will change too.”

	City Bikes	Blox Car
Business logic	Steady membership fee, tiered subscription fee & membership plus usage → customers are paying for the usage	Service fee, (additional marketing packages) → customers are paying for the usage
Critical mass	No critical mass → the service is usable regardless of the amount of service users	Both customer groups, users and owners, are impacting on other side service experience. There need to be enough cars and users, with appropriate prices and conditions.
Idle capacity	The service prevents the bikes idling, but does not enhance the use of already idle capacity	Enhancing the use of idle capacity only
Belief in common good and reciprocity & trust	Trust is reached through registration. Trust is important, but private people do need to share their assets and meet any unknown people.	Trust is reached through registration and other's ratings. Trust is very essential as private people share their own assets and meet face-to-face unknown people.

Mäenpää concluded that the critical mass can be very small and the belief in common good may be important also for other kinds of services than sharing economy services.

Mäenpää agreed with the need for trust in sharing economy. Venäläinen and Ahvenlampi pointed out that these conditions are concerning more collaborative consumption than sharing economy as they emphasize the commonality. Thus, the professionals did not see these conditions as crucial for sharing economy to happen.

The value chain can differ between companies. Jääskeläinen stated that material efficiency is the key issue in City Bikes' case. Not everyone needs to own a bike, thus a single bike can be used more as shared rather than owned by every individual, and production costs and resources can be reduced. Also Blox Car enables to reduce the resources and energy used in the car production industry. Hence, both companies' value chains difference hugely from the traditional products selling company – they don't have such a need for volume production if production is needed at all. Moreover, they don't have such a need for logistics and acquires either. Marketing, sales and service updates are primary actions both services still need to do, besides the many supporting activities. Sharing economy ideology already supports the lighter value chains as it aims to utilize resources better. Rethinking value chain to create shared value is more essential in material-intensive industries, what sharing economy businesses typically are not.

4.7. Theme 6: Societal value

As the demand that meets the societal needs has started growing, companies should rethink the value customers or society needs. HSL, HKL and Espoo city are non-profit organizations, aiming to promote cycling, walking and public transport. City Bikes encourages cycling, which in turn, advances public health and as a rebound effect may cause public savings in health care. Moreover, cycling improves sustainable transportation by reducing the need for private car and its causing CO-emissions, as well as enabling walking and easier access to other public transport modes. City Bikes is making the use of public transport more convenience and providing a flexible option for first and last kilometres -issue. As Jääskeläinen mentioned, individual reasons to cycle are an easy and fast way to move, City Bikes are answering this need without any needs to own the bike or even ride both-ways.

Blox Car has rethought customers' needs and thus Blox Car is providing savings, safety, and flexibility. For car users it provides a cheaper way to use a private car and requires no such an amount of capital to invest in own car. Petrell concluded it as the following:

“If you drive yearly under 10 000 km, Blox Car is approximately the cheapest way to use private car in Finland.”

Also, car owners may cover some car expenses with the rent costs. Both customer sides can save money to use other travel modes, such as public transport instead of private cars. Blox Car offers also insurance involved in the service fee and the safe registration system, thus it is truly a safe service to use compared to other webpages where people may rent their own cars, such as [Tori.fi](#).

According to Petrell, many of the service users value and choose Blox Car by the sustainable and ecological advantages of it. He added, that the service users are probably somehow interested in ecological transportation in principle, which may explain the providers' ecological fleet of cars. Petrell concluded the Blox Car rebound effects as follows:

“Even though shared cars are still causing CO₂-emissions, through Blox Car people are actually driving less private cars and thus the total pollution decreases. Besides that, a smaller car fleet in the cities causes less traffic on the roads and in the parking areas. Blox Car increases the walking and cycling trips too, since the car is used more seldom. That positive rebound advantage will be improved hugely in the future when Blox Car is more connected with public transport.”

However, Petrell argued that it is too dangerous to evaluate Blox Car's net impact on the environment since there is just a little research about it. Anyhow, he pointed out that households with no car are used to the lifestyle without a car, so in their case total shift to the private car is unlikely. Additionally, usually the car is rented for true need and often people with no cars are not even private car supporters. As Blox Car reduces the absolute number of required cars, it can be seen as reducing the total CO₂-emissions too as cars are produced and driven less. Petrell concluded that Blox Car has a huge untapped potential for more efficient transportation:

“Approximately one shared car could replace at least 10 private cars. Moreover, cars are standing in the parking areas 95 % of their existing time, thus using the parking spaces and being used ineffectively.”

Blox Car is also hoping to expand the ecological fleet of cars in their service. Thus, it is more likely that Blox Car net impact on the environment is positive, but more research is needed to state that true.

Most importantly City Bikes and Blox Car are aiming to enhance sustainable transportation. They both underlined the services' intend to increase walking, cycling, and public transport using, simultaneously reducing unnecessary private car driving and its causing CO-emissions. Jääskeläinen claimed that the City Bikes service is surely reducing the net impact of transportation CO-emissions. Besides bike-sharing is replacing the use of trams and buses, it has replaced even 17 % of the yearly private car use. In Espoo, the replacement has been higher than Helsinki, since there are more private cars and less public transport options. Jääskeläinen emphasizes that public transport is still moving the big crowds and represents the core of the transportation and all the people are not even capable to cycle. City Bikes are suitable for short distances, enabling more convenience travel chains, especially when there are shifts between modes.

City Bikes and Blox Car have many societal values in micro and macro level. Private users' health and cost savings as well as the macro-level reduction in CO-emissions, traffic and ineffective use of parking spaces. The main societal values are linked to environmental issues, as being more sustainable transport options than many traditional modes. Thus, they can be seen as sustainable transport representatives, which is surely responding to our time biggest challenge, the climate change.

	City Bikes	Blox Car
Impact on walking, cycling, and public transit	Increases all the modes → user's health benefits → costs savings in health care	Evaluated to increase all modes as the private car is used only when truly needed
Private car using	Reduces the need for private car (in the short distances) → fewer CO-emissions	Less private cars, parking areas, and driving than if everyone owns a car

Efficient use of resources	External cycling infrastructure	Private people own, ineffectively used cars
Other	Eases the travel to public transit catchment area (first and last kilometer-problem)	Car owners earn from rents, car users save in car investment costs

Mäenpää argued that in the best scenario sharing economy may solve the ecological crisis and even the sociological inequality issues. Sharing economy may provide alternative ways to consume, especially for low-income citizens. According to Mäenpää and earlier studies of sharing economy, the second-hand markets in Facebook are particularly popular in the suburbs. Venäläinen concluded that sharing economy's societal benefits as energy use reduction, ecological climate values and work-life changes as in the future we need to work in several different jobs, where sharing economy may provide more options.

On the other hand, the sharing economy has several disadvantages too. According to Mäenpää, it has been stated that especially among middle-class citizens, the sharing economy may even increase the overall consumption, as there is always the second-hand market, where the product is possible to resell. Also, Mäenpää mentioned the possible rebound effects of sharing economy – when sharing economy services have helped in economizing, the saved money may be used to activities revoking the positive effects, such as flying. Ahvenlampi underlined also that sharing economy involves negative sides too. As far as our trade unions, legal systems and public systems are not truly involved in the sharing economy market, the people working in the industry have no union support and probably not all the facilities needed when it comes to their working conditions.

These results indicate that sharing economy has significant potential in creating environmental and social benefits, but it requires a lot of co-operation between different parties to be truly sustainable.

4.8. Theme 7: Sustainable transportation

According to Jääskeläinen, cycling industry, cycling infrastructure, and cycling related organizations are the crucial clusters for City Bikes. They are improving the community

efficiency, productivity, innovation, and competitiveness, and thus impacting positively to the bike-sharing as well. The city of Helsinki has developed the cycling infrastructure significantly during recent last years. Cycling infrastructure involves several clusters within it, thus the effect is very large. Additionally, the cycling boom around the world and MaaS-thinking in general, are impacting the cycling cluster positively. On the other hand, HSL has improved these clusters allowing bikes in metros and community trains. Moreover, HSL marketing of bike-sharing has a positive impact on the cycling cluster in a larger scope too.

Jääskeläinen defines that shared mobility's new competitors are supporting the whole shared mobility cluster. New entrants, micro-mobility vehicles, electric scooters, have come to the market during Spring of 2019. Cycling cluster could be improved by providing better shower facilities in the workplaces and car-sharing by offering more parking spaces for shared cars. Jääskeläinen mentioned that there should be two reserved parking spaces for shared cars in the park and ride facilities, but not all the municipalities are following the alignment. However, the cities in the metropolitan area have improved the shared cars parking by offering the car-sharing companies the possibility to use the citizen parking spaces without fee or at a discount with the sign Z. What comes to private cars parking spaces reduction, Helsinki has been the most active city, compared to Espoo and Vantaa, mostly because the public transport is better in Helsinki and private cars are more necessary in Espoo and Vantaa.

Meaningful clusters for Blox Car are for example HSL, Sitra, Business Finland, and MaaS Finland – the sustainable development promoting parties. Petrell mentioned that they have had cooperation with some car importers and car selling companies, but the most important cooperation and development happens in the field of transport and mobility instead. These clusters improve the awareness and accessibility of the Blox Car as well as provide customers. Blox Car has, for example, signed a contract with Whim, an app for all transport needs, that by the end of 2019 their cars are available via that application. This kind of cooperation is advance for both and the related clusters too. Blox Car is still a relatively new company and they see huge potential between the clusters. In the best case, peer to peer car sharing could be integrated as part of public transport.

Jääskeläinen suggested, that in the best scenario for sustainable mobility, City Bikes are supporting public transport – City Bikes' season is just seven months per year, thus they are just niche sector of the total public transport. Public transport moves the crowds and City Bikes will never replace the overall public transport. Jääskeläinen saw that there will be also private cars because some people truly need their own car, car infrastructure is already so strong that cars are not going to disappear and it is not cost-effective to organize public transport to remote and rural areas. HSL has suggested traffic costs, but the idea has not got enough support. As environmentally friendly cars are still relatively expensive, communities, such as housing companies, could invest in shared environmentally friendly cars together. The goal is that only some people had a private cars and shared cars could be an option for occasional needs. Jääskeläinen concluded, that the government should invest more in the development of electronic mobility and cities should support this. There should be more incentives for using sustainable modes and taxation regulations should be organized differently to attract more users.

Petrell suggested, that all the transport modes would be connected under the same travel chain, thus being easily available for customers – cities and municipalities should truly co-operate with organizations, such in Whim for example. Especially the shifts and the interfaces of transportation are the main challenge. Different modes should support each other in the best way, which is surely the societal level goal too. There are huge chances to improve the connection and co-operation of public transport and other shared mobility modes. If the travel chain is convenient, people barely have no reasons not to use public transport.

Based on the previous information, City Bikes and Blox Car can be seen truly important shared mobility forerunners and promoters – already during Spring of 2019, the competition has grown clearly in that market. The direction and aims towards sustainable transportation are the strongest resources within a cluster, and all the actions by any of the members inside a cluster are influencing rest of the cluster too. Thus, co-operation and shared direction towards sustainable decisions are required.

	City Bikes	Blox Car
Best scenario	Public transport is the core and shared modes may fulfill the gaps between different modes. Less private cars and mostly just in rural areas. Development of electronic mobility.	All transport modes connected under the same system or travel chain. More co-operation with cities and an ideology that each mode supports the other.

Mäenpää mentioned travel industry, tourism, Finnish cottage culture which requires a private car, and food transportation industry as meaningful clusters for shared mobility. Ahvenlampi agreed with the cycling infrastructure's importance and mentioned also winter maintenance impacting on the shared mobility cluster.

Venäläinen summarized that now the transport is very shattered and hoped in the future it could be more coherent entirety. Venäläinen also argued that the government, municipalities and cities are having an essential role besides the businesses, in building a more sustainable transport system. Mäenpää explained that in the best scenario, sharing economy service users should come among the users of the private cars, not only from public transport side. The aim is not to reduce public transport use, but private cars using, thus the change should form their direction. He added that shared mobility services should be integrated better to public transport too, and there should be more incentives for companies to operate in the sharing economy field. On the other hand, Ahvenlampi pointed out there should be more education for kids as well as adults about traveling in the cities. Thus, people could be also more aware of the health and environmental benefits of cycling for example, and they could most likely prefer bikes over cars.

These results indicate that shared mobility will most likely grow but stay as a fulfilling part of the overall transport system, as public transport will move the biggest crowds. In addition, there seems to hide several different clusters in the shared mobility market, which could be utilized better. Most likely though co-operation between different clusters, the travel chains would be more coherent and effective and in the best scenario, public

transport besides several shared mobility services might replace a notable amount of private cars.

4.9. CSV–framework: City Bikes & Blox Car

As the shared value ideology was used in this thesis as a theoretical framework, it is introduced here, filled with empirical material. The table introduces this thesis' two case organizations in the light of the framework, providing both business and societal values they may create in the best scenario. The table is filled based on the interviews and the researcher's conclusions.

	Needs the service is aiming to meet?	<i>Business value</i>	<i>Societal value</i>
City Bikes	<ul style="list-style-type: none"> -Ownership > sharing -Sustainability -24/7/365 consumption -Door-to-door traveling -Health trends 	<ul style="list-style-type: none"> -No straight competitors -Green imago -Integration with public transit > benefits both 	<ul style="list-style-type: none"> -Affordable service for users -Individuals health benefits -Increasing users interest towards sharing -Increase public transit use -Bikes may replace cars in short distances > Less pollution
Blox Car	<ul style="list-style-type: none"> -Ownership > sharing -Car owning costs -Cars & parking areas ineffective utilisation -Sustainability -24/7/365 consumption -Flexible lifestyle -Safe car renting 	<ul style="list-style-type: none"> -No straight competitors -New business idea -Sustainable imago -Low risks -Low invested capital 	<ul style="list-style-type: none"> -Better utilisation of cars -Decreasing need for parking areas -Less car production -Costs savings for car owners and users -Possible social interaction between strangers -Safety in renting from/to strangers -Convenience way of sharing/renting a car

Rethinking value chain, opportunities?			
		<i>Business value</i>	<i>Societal value</i>
City Bikes	<ul style="list-style-type: none"> -Less production of bikes -Less used resources -Bikes logistic mainly autonomous -Autonomous digital platform 	<ul style="list-style-type: none"> -Low costs of production -Material efficiency -Only additional logistic of bikes, other way users move the bikes > savings -Savings in face to face personnel 	<ul style="list-style-type: none"> -Less pollution -Savings in natural resources using -Citizens bigger role in the service
Blox Car	<ul style="list-style-type: none"> -No (car) production -No storage -No logistics -Autonomous digital platform 	<ul style="list-style-type: none"> -No costs of production -No costs and risks of storage -Savings in face to face personnel -Overall risks relatively low 	<ul style="list-style-type: none"> -Utilising already existing resources -No use of natural resources
Meaningful/supportive clusters:			
		<i>Business value</i>	<i>Societal value</i>
City Bikes	<ul style="list-style-type: none"> -Cycling infrastructure -Cycling industry -MaaS-thinking -Cycling trend -Cycling related organisations 	<ul style="list-style-type: none"> -Clusters increasing cycling attractiveness and convenience -Clusters support cycling as a part of travel chain, fulfilling first/last miles -Integrated with other modes 	<ul style="list-style-type: none"> -Increase public transit convenience as cycling fulfilling the first/last miles -Improvement in cycling infrastructure and maintenance increase cycling around the year -Health benefits save costs -Cycling causes no CO-emissions
Blox Car	<ul style="list-style-type: none"> -HSL -Sitra -Business Finland -MaaS Finland -Sustainable development promoting parties 	<ul style="list-style-type: none"> -Co-operation -Integration with other transport modes -Visibility -New customers via other clusters 	<ul style="list-style-type: none"> -More coherent travel chain and integrated entirety -Increasing public transit use -Development of sustainable transport -Less ineffectively used private cars -Less private cars in total

Table 6: *City Bikes and Blox Car creating shared value*

5. DISCUSSION

In this chapter, the main empirical and theoretical findings of the research are discussed. Findings presented, are shown to be both supporting the previous research and differing from it. After that, the managerial implications are showed, and the limitations of the study are presented. In the end, suggestions for future research are provided.

First, as sharing economy is such a novel subject to study, this thesis aimed to clarify the understanding of that phenomenon on a macro level, especially in the shared mobility context, focusing on the two most common vehicles; bikes and cars. The aim was not to attempt to create a standard definition of sharing economy, but to present the main characteristics of sharing economy services. Second, this study was aiming to view shared mobility services' potential in shared value context, providing a deeper understanding of the societal level values shared mobility may create. Besides the societal value, this study was pursuing to understand better the business perspective of sharing economy and providing important issues to consider, for a single organization operating in the shared mobility market.

This study was aiming to address the following research question: *What shared value shared mobility service can create?* In the following text, this question is approached through the research objectives. All the research objectives were met, and so was the main research question.

5.1. Theoretical implications

To answer the first research objective, *what are the key characteristics of sharing economy*, the sharing economy was discussed first generally and then specified to the transportation context – shared mobility. This study focused especially on the two common disagreements of sharing economy: the sharing economy service providers and participants as well as idle capacity sharing. This study confirms the earlier statement by Selosmaa and Lahti (2013) about the old and new classifications of sharing economy.

According to that, the different perceptions regarding the sharing economy providers and idle capacity being shared, depending on the classification the sharing economy, are viewed. The new classification sees only peer to peer as a sharing economy, where the old classification also allows government and businesses to be the shared resources' providers. The results of this study support the idea of both, the old and the new classification for sharing economy. On the other hand, this study does not confirm that sharing economy is associated only with idle capacity sharing, as a considerable amount of studies do.

There is no clear consensus if the services that have produced the resources for the service use are considered as sharing economy services as they are not sharing only idling resources. On the other hand, services that increase the use just some existing resources, produced for the service use or not, could be counted as sharing economy. In this research, both options are seen to be sharing economy. The findings of the study suggest a fresh perspective to consider: sharing economy services can be seen increasing the use of service external resources too, such as City Bikes can be seen increasing the use of cycling infrastructure. However, as previous studies have not dealt with this perspective, that finding might not yet be transferable to other cases and thus requires more research.

As the focus was moved to shared mobility, the role of public transportation was discussed critically. This study can even be one the first studies so far observing the public transport as shared mobility. A possible explanation lies once again in the different classifications of sharing economy. The old classification also sees government as shared mobility, thus, City Bikes as one mode of public transportation could be counted as shared mobility.

In line with previous studies, this study defines shared mobility as a sub-group of sharing economy. This study determines the key characters of sharing economy as *an economic model favouring access over ownership, enabling citizens being more than consumers, sharing resources provided by peers, businesses or government, sharing resources, not through ownership and improving either internal or external resources better utilization*. These study results confirm the previous studies' statement about sharing economy

lacking consensus. Thus, the definition above does not apply in all the situations and it should not be assumed too unconditionally.

The second research objective, how shared mobility service can create business value, was met by approaching the main conditions and issues, a single organization needs to consider, to gain any economic value. First, this study supports Botsman's (2012) statements of business logics in sharing economy, as appropriate business logics were found among them for the case organizations. These results of a current study do not support the four, sharing economy required conditions by Botsman (2012). Based on the empirical findings, all the conditions were not as crucial for both case services, as the theory argued. This disagreement was explained most likely by the different classifications, new and old, and the conditions concerning more collaborative consumption. According to the results, in the broader classification where critical mass, idle capacity, belief in the common good, as well as trust, played less critical role for the service success, than for the services fulfilling the newer classification. Thus, this study extends the Botsman's theory to view sharing economy required conditions, to rather concern the newer classification services, and collaborative consumption services.

As the shared value framework also included business perspective, value chain and rethought customer needs, were discussed too. Based on the literature review, this study is the first one discussing the sharing economy services' value chain, in the context of shared value. This caused challenges, as there were no previous studies to benchmark or cite from. However, according to this study findings, the value chain of sharing economy service is significantly lighter compared to many traditional products or services, as material efficiency is defining the sharing economy services' value chains. However, this thesis is based on a small number of shared mobility representatives, so this conclusion may not be transferred to other cases without more research of diverse industries representatives. What comes to rethinking the customers' needs in creating the business value in the shared value context, these study findings conclude those needs being very close to the drivers behind the rise of sharing economy. As a conclusion to the second research objective, the findings of this study suggest a company to consider appropriate business logic according to Botsman's business logics (2012), but not to consider the

Botsman's stated conditions too critically, as they may concern more collaborative consumption services. What comes to the shared value context's business perspective, it is recommended to rethink the traditional decisions concerning the value chain and fulfilling customers' needs. The ideology of the sharing economy, such as favouring access over ownership and better utilization of resources, provides already an appropriate perspective for both questions.

As the third research objective, *what societal value shared mobility service can create*, the societal value was perceived from a social and environmental perspective, emphasizing the latter as it is being influenced more by transportation, which was the main industry in this study. This study supports Porter and Kramer's (2011) idea that innovations and productivity are largely influenced by clusters. Based on this study findings, clusters and companies are supporting each other, if they are aiming in the same goals and direction. Additionally, many of the shared mobility service challenges are common challenges within the cluster. Thus, this study agrees with Porter and Kramer shared value framework concerning the meaning of the clusters.

As a conclusion to the societal value shared mobility can create, this thesis suggests that shared mobility can be seen as an opportunity for more sustainable transportation. Shared mobility requires less energy, materials, and resources, so it is almost certain that it reduces overall emissions and is more sustainable than traditional transportation modes. Switching the culture from owning to temporary access and sharing, is most likely to improve the underutilized resources' better utilization, creating more efficient transportation and use of parking spaces. Hence, as societal level value, shared mobility could be stated to provide an appropriate solution in the fight against climate change. From the social point of view, shared mobility is likely to provide cost savings for businesses as well as individuals, modify the consumption culture more suitable for different consumer needs and provide significant business opportunities. Thus, shared mobility can provide considerable societal and business value. This statement goes in line with the ideology of share value. Thus, this study supports CSV-framework, but as it is such a novel framework, it requires more research to be more concrete, as it is now quite a vague ideology, rather than a strategic framework.

Answering to the research question, *what shared value shared mobility service can create*, has been covered in the previous chapters through the research objectives. However, to conclude these study findings concerning the research question and the thesis aim, the main conclusions are summarized next. Shared mobility, a sub-group of sharing economy, may simultaneously create societal value and business value. Shared mobility's constantly growing economic potential, provides considerable business opportunities, which may be reached through appropriate business logics. As sharing economy's ideology, where reaching the same service level with less material and production, is sustainable in principle, it is likely to create something valuable for society too. As a very potential sustainable transportation mode, shared mobility could fulfil the gaps in current transportation entirety, and support people to utilize more sustainable transportation modes. In addition, shared mobility services may provide costs savings, increase people walking, cycling and public transit use, which in turn will most likely increase individual's health and reduce harm to the environment. Thus, shared mobility is capable to impact positively on individuals as well as issues on societal level.

5.2. Managerial implications

The empirical part of the study has been designed to also add practical value to the managers in the sharing economy industry. First, this study provides managers new perspectives to view business and consumption. Companies should truly take climate change and other environmental issues seriously, but more importantly, see those issues as business opportunities. Creating business value and value for society simultaneously is possible and most likely a competitive advantage, especially in the future, when the environmental crisis will propagate. This study suggests managers to rethink the traditional "either-or" -ideology concerning contrary aims of businesses and society – a lot of untapped potential lay in the mutual goals.

To improve the sustainable image of the service, for Blox Car it would be appropriate to try to attract more ecological fleet of cars. The total private car driving is most likely to

decrease, but the cars are still causing CO-emissions, thus more environmentally friendly car fleet would provide a stronger competitive advantage when competition arises. On the other hand, City Bikes would emphasize more the health benefits of cycling by creating incentives for the service users – cycling a certain amount would earn a certain prize for the customer and thus encourage to cycle even more.

Second, managers should rethink the current trends concerning customers changing habits and needs. Customers' growing awareness of the environment requires significant new ways to run businesses and take serious action to the sustainability issues. Sustainability should be in the core of the business' thus, the business idea should be fulfilling sustainable ideology as a principle. Sharing economy provides huge amount of fresh perspectives to business, offers considerable amount of new business logics and opportunities, thus this study suggests managers to deepen their understanding of sharing economy and shared value opportunities. As this study results indicated, people appreciate a simple life and expect convenient service experiences. Thus, companies should focus on designing superior customer experiences by analysing all the company touchpoints, physical and digital.

As a suggestion for City Bikes, the bike stands could be further developed to track malfunctions from the broken bikes. From the digital app, the customer may view all the bike stations statistics concerning the number of bikes. However, sometimes at the stations, there are broken bikes that the app shows as cyclable, which most likely decrease the customer experience when a customer cannot cycle the bike. Hence, a station tracking the condition of the bikes would increase the customer experience, even if the bikes were broken.

Third, within the shared value, this study suggests the managers to observe the surrounding cluster's potential. As clusters create the environment for services to operate, it is significantly essential to share the common aims with the cluster and support it. For example, City Bikes could consider around year season, if the winter maintenance of cycling infrastructure would take care of the routes, providing appropriate cycling routes around the year. However, this would require a lot of extra maintenance for cycling work.

Fourth, companies in the mobility industry should be aware of the travel chain thinking and how shared mobility is changing the culture of traveling. Co-operation between travel modes and their attachment points is crucial in the future. Companies should implement the concept of MaaS to provide travellers the convenience of door-to-door experience. MaaS-thinking would increase the co-operation between private and public transit, which would improve both sides. Companies should be co-operating with the public transportation in the city and on a national level.

For both, City Bikes and Blox Car, better integration with public transit and other vehicles is suggested, even if they have already started to execute more co-operation. Even though the integration of different vehicles requires a massive amount of planning and negotiating, eventually it is most likely to improve all the parties in succeeding, as the entire travel chain becomes more convenient for the customer.

5.3. Limitations

Some important limitations need to be considered. First, as sharing economy is such a novel subject in academic research, it is lacking even the consensus of the term definition. As there is no consensus of essential issues within the subject, the future research is challenging to form without hardly any base where to start, and because all the previous assumptions need to be questioned on some level. Thus, this study has probably leaned on some assumptions concerning sharing economy, which have not been found true in all the previous studies. As an example, there are not many researchers on sharing economy field yet, thus some theoretical statements used in this research are based only a few researcher results. However, this is likely the challenge with every new study.

Second, this study focus was slightly too fragmented considering the deficiency of the basics in the previous studies as well as the limited time and resources in master's thesis. By studying broad scope instead of too narrow, gave an appropriate overall understanding of the phenomenon, but left some issues slightly shallow. Also, the shared value

framework expanded the study scope hugely, but was very vague due to its novelty, which created the fragmented entirety too.

Third, this study would have utilized both qualitative and quantitative research approaches, since the study involved also question, such as the net impact of the shared mobility service, which could be also approached from the quantitative perspective. Additionally, utilizing both approaches, would have improved the triangulation of the study. As there was a limited amount of secondary data of the case companies, especially in Blox Car case, the interview was mostly the only method used to collect the material. If there were more secondary data available, it would have improved the triangulation challenge.

Fourth, these results may not be examined to every single organization, since only two cases were involved. This was justified by the limited resources in master thesis, but it is too limited amount to state any generalized information. Moreover, only one person from the company was interviewed, so the perspectives cannot be seen as the whole company assumptions. However, to avoid too limited and company reliant data, also independent professionals and active influencers were interviewed. Like any research, this research had several limitations too, but these can provide suggestions for future research avenues, which is being discussed next.

5.4. Suggestions for future research

This research has raised up many questions that are in need of further investigation. Further research might explore sharing economy utilizing more quantitative research approaches to test the obscure statements according to shared mobility sustainability, the net impact on the environment and rebound effects. Additionally, the definition of sharing economy still requires more clarification. Even though this research discussed the role of public transport in the shared mobility services, that could be viewed from several different perspectives to make that issue even more clear.

Even though the aim was not to generalize the results, more companies should be studied in the future to gain more understanding of the different features of shared mobility services. In addition, the perspective could be narrowed only to the business perspective to gain appropriate information, especially for the business field, concerning for example the different business models of sharing economy.

REFERENCES

- Acquier, Aurelien., Daudigeos, T., & Pinkse, J. (2017). Technological Forecasting & Social Change Promises and paradoxes of the sharing economy : An organizing framework. *Technological Forecasting & Social Change*, 0–1. Available from Internet: <URL:<https://doi.org/10.1016/j.techfore.2017.07.006>>.
- Airbnb. [online] (2019). Hinnoittelu ja palvelumaksut. [cited 12.4.2019] Available from Internet: <URL:<https://www.airbnb.fi/help/topic/1120/pricing---fees>>.
- Belk, Russell. (2014). You are what you can access: Sharing and collaborative consumption online. *Journal of Business Research*, 67(8), 1595–1600. [online] [cited 23.2.2019] Available from Internet: <URL:<https://doi.org/10.1016/j.jbusres.2013.10.001>>.
- Birdsall, Michelle. (2014). Carsharing in a Sharing Economy - ProQuest. *ITE Journal (Institute of Transportation Engineers)*, 84(4), 37. [online] [cited 12.2.2019] Available from Internet: <URL:<https://doi.org/10.1088/0957-4484/23/33/335101>>.
- Boons, Frank., & Bocken, N. (2018). Towards a sharing economy – Innovating ecologies of business models. *Technological Forecasting and Social Change*, 137(June), 40–52. [online] [cited 2.2.2019] Available from Internet: <URL:<https://doi.org/10.1016/j.techfore.2018.06.031>>.
- Burrell, G., & Morgan, G. (1979). Sociological paradigms and organizational analysis. Available from Internet: <URL:<https://doi.org/10.1002/smj.4250140603>>.
- Burton, Ian. (1987). Report on reports: Our common future. *Environment*, 29(5), 25–29. Available from Internet: <URL:<https://doi.org/10.1080/00139157.1987.9928891>>.
- Choi, Hyung Rim, Cho, M. J., Lee, K., Hong, S. G., & Woo, C. R. (2014). The business model for the sharing economy between SMEs. *WSEAS Transactions on Business and Economics*, 11(1), 625–634. Available from Internet:<URL:<https://doi.org/10.9723/jksiis.2016.21.5.041>>.
- Cohen, Adam., & Shaheen, S. (2016). Planning for Shared Mobility (PAS 583). *American Planning Association*, (July 2016). Available from Internet: <URL:<https://doi.org/10.7922/G2NV9GDD>>.
- Cohen, Boyd., & Kietzmann, J. (2014). Ride On! Mobility Business Models for the Sharing Economy. *Organization and Environment*, 27(3), 279–296. Available from Internet: <URL:<https://doi.org/10.1177/1086026614546199>>.

- Crane, Andrew., Pallazzo, G., Spence, L. J., & Matten, D. (2014). 2 Contesting the Value 'Creating Shared Value' Concept. *California Management Review*, 56(2), 130–154. Available from Internet: <URL:https://doi.org/10.1525/cmr.2014.56.2.130>.
- Dal Pont Legrand, M., & Hagemann, H. (2017). Business cycles, growth, and economic policy: Schumpeter and the great depression. *Journal of the History of Economic Thought*, 39(1), 19–33. Available from Internet: <URL:https://doi.org/10.1017/S1053837216001048>.
- Dillahunt, Tawanna. R., Arbor, A., & Malone, A. R. (2015). Available from Internet: <URL:Pn0389-Dillahuntv2.>.
- Drews, Stefan., & Reese, G. (2018). "Degrowth" vs. Other Types of Growth: Labeling Affects Emotions but Not Attitudes. *Environmental Communication*, 12(6), 763–772. Available from Internet: <URL:https://doi.org/10.1080/17524032.2018.1472127>.
- DriveNow. [online] (2019). Drive Now Costs. [cited 4.3.2019] Available from Internet: <URL:https://www.drive-now.com/fi/en/pricing/>.
- Dudovskiy, J. (2019). Case Studies. *Research Methodologies*.
- Dul, Jan., & Hak, T. (2008). *Case Study Methodology in Business Research* (1st ed.). Oxford: Elsevier Ltd.
- Edelman, Benjamin. G., & Luca, M. (2014). Digital Discrimination: The Case of Airbnb.com. *Ssrn*. Available from Internet: <URL:https://doi.org/10.2139/ssrn.2377353>.
- Eduskunnan Tulevaisuusvaliokunta. (2018). *Jakamistalous ja alustatyö jakamistalous ja alustatyö*. 3:18 p. 58.
- EPA. (2016). What Climate Change Means for Guam. *Epa*, (August). Available from Internet: <URL:https://doi.org/10.1038/nrg2568>.
- Eriksson, P., & Kovalainen, A. (2008). *Qualitative methods in business research*. London: Sage 2008.
- Fankhauser, S., Sehleier, F., & Stern, N. (2008). Climate change, innovation and jobs. *Climate Policy*, 8(4), 421–429. Available from Internet: <URL:https://doi.org/10.3763/cpol.2008.0513>.
- Fiala, Nathan. (2008). Measuring sustainability: Why the ecological footprint is bad economics and bad environmental science. *Ecological Economics*, 67(4), 519–

525. Available from Internet: <URL:<https://doi.org/10.1016/j.ecolecon.2008.07.023>>.
- Finlex. [online] (2019). Taksiliikennelaki. Available from Internet: <URL:<https://www.finlex.fi/fi/laki/ajantasa/2017/20170320?search%5Btype%5D=piika&search%5Bpika%5D=taksiliikenne>>.
- Formánková, S., Trenz, O., Faldík, O., Kolomazník, J., & Sládková, J. (2019). Millennials' Awareness and Approach to Social Responsibility and Investment—Case Study of the Czech Republic. *Sustainability*, *11*(2), 504. Available from Internet: <URL:<https://doi.org/10.3390/su11020504>>.
- Frenken, Koen., & Schor, J. (2017). Putting the sharing economy into perspective. *Environmental Innovation and Societal Transitions*, *23*, 3–10. Available from Internet: <URL:<https://doi.org/10.1016/j.eist.2017.01.003>>.
- Gabriel, C., & Bond, C. (2019). Need, Entitlement and Desert: A Distributive Justice Framework for Consumption Degrowth. *Ecological Economics*, *156*(August 2018), 327–336. Available from Internet: <URL:<https://doi.org/S0921800918303033>>.
- Geissinger, Andrea., Laurell, C., Öberg, C., & Sandström, C. (2019). How sustainable is the sharing economy? On the sustainability connotations of sharing economy platforms. *Journal of Cleaner Production*, *206*, 419–429. Available from Internet: <URL:<https://doi.org/10.1016/j.jclepro.2018.09.196>>.
- Gimenez, Christina., Sierra, V., & Rodon, J. (2012). Sustainable operations: Their impact on the triple bottom line. *International Journal of Production Economics*, *140*(1), 149–159. Available from Internet: <URL:<https://doi.org/10.1016/j.ijpe.2012.01.035>>.
- Hirsjärvi, Sirkka., & Hurme, H. (2008). *Tutkimushaastattelu: Teemahaastattelun teoria ja käytäntö*. Helsinki: Gaudeamus Helsinki University Press.
- Hirsjärvi, Sirkka., Remes, P., & Sajavaara, P. (2009). *Tutki ja kirjoita* (15th ed.). Hämeenlinna: Kariston Kirjapaino Oy.
- Hoegh-Guldberg, Ove., Jacob, D., Taylor, M., & et al. (2018). Impacts of 1.5°C global warming on natural and human systems. *Global Warming of 1.5 °C - IPCC's Special Assessment Report*. Available from Internet: <URL:<https://doi.org/10.1093/aje/kwp410>>.
- Juurola, Muru., & Karppinen, H. (2017). Sosiaalinen kestävyys ja metsien käyttö. *Metsätieteen Aikakauskirja*, *2003*(2). Available from Internet: <URL:<https://doi.org/10.14214/ma.5682>>.

- Liikennevirasto (2016). *Kestävämpää liikennettä ja väylänpitoa – Katse kasvihuonekaasupäästöjen vähentämisessä*. ISBN 978-952-317-331-6
- Kowalkowski, Christian., Gebauer, H., Kamp, B., & Parry, G. (2017). Servitization and deservitization: Overview, concepts, and definitions. *Industrial Marketing Management*, 60, 4–10. Available from Internet: <URL:<https://doi.org/10.1016/j.indmarman.2016.12.007>>.
- Kramer, Mark. R., & Porter, M. (2011). Porter et al 2011.pdf. *Creating Shared Value*. Available from Internet: <URL:<https://doi.org/10.1108/09600039410055963>>.
- Kuehne, Kathrin., & Breitner, M. (2017). ECOLOGICAL & PROFITABLE CARSHARING BUSINESS: EMISSION LIMITS & HETEROGENEOUS FLEETS, 2017, 1232–1247. ISBN 978-989-207-655-3.
- Kumar, V., Lahiri, A., & Dogan, O. B. (2018a). A strategic framework for a profitable business model in the sharing economy. *Industrial Marketing Management*, 69(April 2017), 147–160. Available from Internet: <URL:<https://doi.org/10.1016/j.indmarman.2017.08.021>>.
- Kumar, V., Lahiri, A., & Dogan, O. B. (2018b). A strategic framework for a profitable business model in the sharing economy. *Industrial Marketing Management*, 69(April), 147–160. Available from Internet: <URL:<https://doi.org/10.1016/j.indmarman.2017.08.021>>.
- Lahti, Vesa.-Matti, (2017). Jaettua liikkumista. Available from <URL:<https://www.sitra.fi/artikkelit/jaettua-liikkumista/>>.
- Lahti, Vesa.-Matti., & Selosmaa, J. (2013). *Kaikki jakoon!* (1st ed.). Keuruu: Otavan kirjapaino Oy.
- Lal, R. (2004). Soil carbon sequestration impacts on global climate change and food security. *Science*, 304(5677), 1623–1627. Available from Internet: <URL:<https://doi.org/10.1126/science.1097396>>.
- Lash, Jonathan., & Wellington, F. (2007). Competitive Advantage on a Warming Planet Competitive Advantage on a Warming Planet The Idea in Brief The Idea in Practice. Available from Internet: <URL: www.hbrreprints.org>.
- Ilmastopaneeli (2015). Tarve, tottumukset, tekniikka ja talous – ilmastonmuutoksen hillinnän toimenpiteet liikenteessä.
- Litman, Todd., Zhang, W., Mestres, L., Rivera, M., J, J. Y., Duell, M., ... Zhang, Y. Y. (2017). Shared Mobility Public Transit. *Transportation Research Part C: Emerging Technologies*, 42(4), 603–616. Available from Internet:

<URL:https://doi.org/10.17226/23578>.

- Ma, Yoge., Rong, K., Luo, Y., Wang, Y., Mangalagiu, D., & Thornton, T. F. (2019). Value Co-creation for sustainable consumption and production in the sharing economy in China. *Journal of Cleaner Production*, 208, 1148–1158. Available from Internet: <URL:https://doi.org/10.1016/j.jclepro.2018.10.135>.
- Machado, C., de Salles Hue, N., Berssaneti, F., & Quintanilha, J. (2018). An Overview of Shared Mobility. *Sustainability*, 10(12), 4342. Available from Internet: <URL:https://doi.org/10.3390/su10124342>.
- Martin, Elliot., & Shaheen, S. (2011). The impact of carsharing on public transit and non-motorized travel: An exploration of North American carsharing survey data. *Energies*, 4(11), 2094–2114. Available from Internet: <URL:https://doi.org/10.3390/en4112094>.
- MBAAs, T. A. of. (n.d.). How, Why and When to invest in the sharing economy. 2019.
- Moon, Hwy-Chang., Pare, J., Yim, S. H., & Park, N. (2011). An extension of porter and kramer's creating shared value (CSV). *Journal of International and Area Studies*, 18(2), 49–64.
- MOW. [online] (2019). Jäsenyydet. [cited 1.5.2019] Available from Internet: <URL:https://mow.fi/memberships>.
- Muñoz, P., & Cohen, B. (2017). Mapping out the sharing economy: A configurational approach to sharing business modeling. *Technological Forecasting and Social Change*, 125, 21–37. Available from Internet: <URL:https://doi.org/10.1016/j.techfore.2017.03.035>.
- Netflix. [online] (2019). Netflix Streaming Plans.[cited 2.5.2019] Available from Internet: <URL: https://help.netflix.com/en/node/24926>.
- Neven, David., & Dröge, C. L. M. (2000). A Diamond for the Poor ? Assessing Porter ' s Diamond Model for the Analysis of Agro-Food Clusters in the Developing Countries, 13.
- Nidumolu, R., Prahalad, C. K., & Rangaswami, M. R. (2009). Why sustainability is now the key driver of innovation. *Harvard Business Review*, 87(9), 57–64. https://doi.org/10.1109/EMR.2015.7123233
- Olson, Michael., & Kemp, S. (2015). Sharing Economy - An in-depth look at its evolution and Trajectory Across Industries. *PiperJaffray*, (March), 1–76. Available from Internet: <URL:https://doi.org/<p></p>>.

- Posen A. Hannah, (2016). Ridesharing in the Sharing Economy: Should Regulators Impose Uber Regulations on Uber? *Iowa Law Review*, 101(1), 405–433.
- Porter, Michael. E. (1985). *Competitive Advantage*. New York: Free Press.
- Porter, Michael. E. (1991). Towards a dynamic theory of strategy. *Strategic Management Journal*, 12, 95–117.
- Porter, Michael. E., & Linde, C. van der. (1995). Toward a New Conception of the Environment-Competitiveness Relationship. *Journal of Economic Perspectives*, 9(4), 97–118. Available from Internet: <URL:<https://doi.org/10.1257/jep.9.4.97>>.
- Porter, Michael., & Kramer, M. (2007). Making the case for the competitive advantage of corporate social responsibility. *Business Strategy Series*, 8(3), 186–195. Available from Internet: <URL:<https://doi.org/10.1108/17515630710684187>>.
- PwC. (2015). Sharing or Paring? Growth of Sharing Economy. *Social Service Review*, 47(1), 95–102. Available from Internet: <URL:<https://doi.org/10.1086/642933>>.
- PwC. (2017). *Jakamistalous Suomessa - Nykytila ja kasvunäkymät. TEM raportteja 9/2017*. ISBN 987-952-327-196-8
- Ritter, M., & Schanz, H. (2018). The sharing economy: A comprehensive business model framework. *Journal of Cleaner Production*, 213, 320–331. Available from Internet: <URL:<https://doi.org/10.1016/j.jclepro.2018.12.154>>.
- Santana, Jessica., & Parigi, P. (2015). Risk Aversion and Engagement in the Sharing Economy. *Games*, 6(4), 560–573. Available from Internet: <URL:<https://doi.org/10.3390/g6040560>>.
- Santos, Georgine. (2018). Sustainability and shared mobility models. *Sustainability (Switzerland)*, 10(9). Available from Internet: <URL:<https://doi.org/10.3390/su10093194>>.
- Sanz, P. J., Iñesta, J. M., & Del Pobil, A. P. (1999). Planar Grasping Characterization Based on Curvature-Symmetry Fusion. *Applied Intelligence*, 10(1), 25–36. Available from Internet: <URL:<https://doi.org/10.1023/A:1008381314159>>.
- Schor, Juliet. (2016). Debating the Sharing Economy. *Journal of Self-Governance and Management Economics*, 4(3), 7. Available from Internet: <URL:<https://doi.org/10.22381/JSME4320161>>.
- Schwadt, T. . (1994). Constructivist, Interpretivist Approaches to Human. *Handbook of*

Qualitative Research, 118–137.

- Shaheen, Susan. A., Mallery, M. A., & Kingsley, K. J. (2012). Personal vehicle sharing services in North America. *Research in Transportation Business and Management*, 3(April 2015), 71–81. Available from Internet: <URL:<https://doi.org/10.1016/j.rtbm.2012.04.005>>.
- Shaheen, Susan., Chan, N., Bansal, A., Cohen, A., Shaheen, S., Chan, N., Williams, S. (2015). Definitions, Industry Developments, and Early Understanding Acknowledgements.
- Shaheen, Susan., Cohen, A., & Zohdy, I. (2016). Shared Mobility: Current Practices and Guiding Principles. *U.S. Department of Transportation, Federal Highway Administration*, 120. Available from Internet: <URL:<https://doi.org/FHWA-HOP-16-022>>.
- Sirén, Torsti., & Pekkarinen, O. (2017). Tieteenfilosofis-Metodologisia Perusteita Pro Gradu -Tutkielman Laadintaan. Available from Internet: <URL:https://www.doria.fi/bitstream/handle/10024/134431/Sarja_3_Työpapereita_3_2017_Siren_Pekkarinen-verkkoversio.pdf?sequence=2>.
- Skjelvik, John. Magne., Erlandsen, A. M., & Haavardsholm, O. (2017). *Environmental impacts and potential of the sharing economy*. Available from Internet: <URL:<https://doi.org/http://dx.doi.org/10.6027/TN2017-554>>.
- Szekely, I. M. D. F., & Strebel, H. (2012). Innovation for sustainability. *Report*, (June), 1–22. Available from Internet: <URL:<https://doi.org/10.1016/j.jclepro.2012.05.013> T4 - A systemic double-flow scenario method for companies M4 - Citavi>.
- Uusi-Suomi. [online] (2017). *Eduskunta sinetöi kiistellyn liikennekaaren - Taksikuskin murheen päivä*. [cited 2.5.2019] Available from Internet: <URL:<https://help.netflix.com/en/node/24926>>.
- Vendrell-Herrero, Ferran., Bustinza, O. F., Parry, G., & Georgantzis, N. (2017). Servitization, digitization and supply chain interdependency. *Industrial Marketing Management*, 60, 69–81. Available from Internet: <URL:<https://doi.org/10.1016/j.indmarman.2016.06.013>>.
- Williams, Colin., & Millington, A. (2004). The Diverse and Contested Meanings of SD. *The Geographical Journal*, 170(2), 99–104.
- Yahya, Bernando. N. (2017). Overall bike effectiveness as a sustainability metric for bike sharing systems. *Sustainability (Switzerland)*, 9(11). Available from Internet: <URL:<https://doi.org/10.3390/su9112070>>:

APPENDICES

INTERVIEW GUID

First interview

Sharing economy

Based on your experience and understanding, what is sharing economy?

Who are the participants in the sharing economy? Who can provide sharing economy services?

In your service/ In sharing economy, who are the typical users?

Shared mobility

(What is the purpose of your service?)

(What is your service role in the transportation?)

How is your service/shared mobility influencing in walking, cycling, car using and (other) public transport?

Evaluate your service/shared mobility net impact on the environment?

Drivers

From your service point of view, what do you see as the drivers behind the rise of sharing economy?

Shared resources

(What resources is the service aiming to utilize more effectively?)

Does the resources need to be idle capacity?

Second interview

Business perspective

(Could you tell about the business logic used in your service?)

Does your service/sharing economy services require some critical mass?

What is the role of trust in your service/ in sharing economy services?

How the belief in common good and reciprocity are seen in your service/sharing economy services?

Describe your company/sharing economy services value chain?

(Which customer needs the service is aiming to fulfil?)

Societal value

What societal challenges the service/sharing economy is aiming to respond?

Sustainable transport

What cluster you can identify from the environment your service/shared mobility service is operating?

How the clusters are impacting on your service/shared mobility services and how your service is impacting on the clusters?

(Is there still under-utilized potential in the surrounding clusters?)

What could be the best scenario for the sustainable transport?

What is the role of your service/shared mobility in that scenario?