



# Would you share your car? Go-to-market strategies for peer-to-peer carsharing systems

João Oliveira

Dissertation written under the supervision of professor Christina Bidmon

Dissertation submitted in partial fulfilment of requirements for the MSc in Management with Specialization in Strategy & Entrepreneurship, at the Universidade Católica Portuguesa,  
06.01.2021

## **Acknowledgments**

I would like to thank my supervisor, Christina Bidmon, for the excellent guidance and valuable insights. She was extremely available during the whole course of the thesis, providing with relevant feedback and advice. Even being myself a working student, Dr. Christina showed a fantastic comprehension and an incredible availability to meet virtually, taking into consideration my tight schedules.

Additionally, I would like to acknowledge my gratitude to the thirty-one focus group participants who took the time to help and provide their views on the topics studied and which became the base for this research.

Lastly, I would like to thank my family, my girlfriend and my friends for the amazing support given during my studies.

Thank you.

Lisbon, January 2020

João Arantes e Oliveira

## Abstract

**Title:** Would you share your car? Go-to-market strategies for peer-to-peer carsharing systems

**Author:** João Damas Mora de Arantes e Oliveira

The growth of urban areas is increasing concerns related to congestion, parking and pollution. However, together with technology developments verified in the last decades, new opportunities arise. The concept of sharing mobility is defined by giving temporary access to vehicles. This change from ownership to access-based solutions is increasing and is expected to represent a significant share of mobility practices in the future if the correct approaches are performed.

This study focuses on the poorly explored topics related to P2P Carsharing more specifically on the go-to-market strategies sharing platforms should implement in order to ensure success in the Portuguese market. Data was obtained through focus groups, following semi-structured interviews with young individuals, regarding their perceived advantages and disadvantages linked with owning a car, motivational barriers regarding sharing their personal vehicles and views on elements of market strategies which could be implemented. The findings showed a need for *insurance, information available, free parking, regulation of drivers, keyless access, substitute means of transportation available in the platform, green monthly offerings and professionally cleaned vehicles*. The thesis finishes with the limitations verified and suggestions for future studies.

**Keywords:** P2P Carsharing, peer-to-peer carsharing, motivational barriers, go-to-market strategies, young individuals, Portugal, Shared Mobility

## Abstrato

**Título:** Partilharia o carro? Estratégias de mercado para sistemas de partilha de carros entre pares

**Autor:** João Damas Mora de Arantes e Oliveira

O crescimento de áreas urbanas está a aumentar preocupações relacionadas com congestão, estacionamento e poluição. Porém, juntamente com os desenvolvimentos tecnológicos verificados nas últimas décadas, novas oportunidades surgiram. O conceito de mobilidade partilhada é definido por permitir o acesso temporário a veículos. Esta mudança de propriedade para soluções baseadas em acesso está a aumentar e é expectado representar uma parte significativa de práticas de mobilidade no futuro se forem executadas as abordagens corretas.

Este estudo é focado nos tópicos poucos explorados da partilha de carros entre pares, mais especificamente nas estratégias de mercado que as plataformas de partilha devem implementar de modo a assegurar o seu sucesso no mercado português. Os dados foram obtidos através de grupos de foco, seguindo entrevistas semiestruturadas, com jovens referentes às suas consideráveis vantagens e desvantagens ligadas com possuir um carro, barreiras motivacionais relativas com a partilha dos seus veículos pessoais e posições sobre elementos de estratégias de mercado. Os resultados mostraram uma necessidade por *Seguro, informação disponível, estacionamento gratuito, regulamento dos condutores, acesso sem chave, meios de transportes substitutos na plataforma, ofertas mensais verdes e veículos profissionalmente limpos*. A tese finaliza com as limitações verificadas e sugestões para estudos futuros.

**Palavras-chave:** Partilha de carro entre pares, barreiras motivacionais, estratégias de mercados, jovens, Portugal, Mobilidade Partilhada.

## **I. Table of Contents**

<b>II. List of Figures</b> -----	<b>5</b>
<b>III. List of Tables</b> -----	<b>6</b>
<b>1. Introduction</b> -----	<b>7</b>
<b>2. Literature Review</b> -----	<b>10</b>
2.1 Sharing Economy -----	10
2.2 Drivers for Participating in the Sharing Economy -----	11
2.3 Sharing Mobility -----	14
2.4 Peer-to-peer Carsharing -----	18
<b>3. Methodology</b> -----	<b>22</b>
3.1 Research Design -----	22
3.2 Data Collection and Analysis -----	23
<b>4. Results and Discussions</b> -----	<b>27</b>
4.1 Results -----	27
4.1.1 Benefits and Disadvantages of Private Car According to Young Individuals -----	27
4.1.2 Motivational Barriers Which Prevent Young Individuals to Share Their Cars -----	31
4.2 Discussion and Interpretation of Results -----	34
4.2.1 Validation of Statements -----	35
4.2.2 Other Go-to-market Strategies -----	39
4.3 Checklist for Strategy Implementation -----	40
<b>5. Conclusions and Limitations</b> -----	<b>42</b>
5.1 Main Findings and Conclusion -----	42
5.2 Contributions and Limitations -----	44
<b>6. References</b> -----	<b>46</b>
<b>7. Appendices</b> -----	<b>51</b>

## **II. List of Figures**

Figure 1: Sharing Mobility and Its Modalities -----	15
Figure 2: User Expenses for Various Modes of Transportation -----	17
Figure 3: GoMore Rental Page -----	19
Figure 4: Comparison of Hofstede's cultural dimensions between Portugal and Denmark -----	20
Figure 5: Barriers Identified by Young Consumers Regarding Sharing Their Vehicles -----	31
Figure 6: List of Key Strategies to Ensure P2P Carsharing Success -----	40

### **III. List of Tables**

Table 1: Average and Median Monthly Income per Sharing Economy Worker -----	12
Table 2: Examples of Sharing Motives -----	13
Table 3: Advantages and Disadvantages of Owning a Private Car -----	17
Table 4: Segmentation of Population by Age-----	23
Table 5: Overview of Participants' Socio-Demographic Characteristics -----	25
Table 6: Illustration of Statements to be Validated -----	26
Table 7: Advantages and disadvantages of owning a private car according to young individuals -	27
Table 8: Summary of comparison among different Zipcar service plans -----	40

# **1. Introduction**

*“I think the biggest change that we’re seeing [...] is that people are choosing to buy mobility as opposed to just buying a car.” (Shelby Clark, 2015, p. 20)*

Experts estimate the world’s urban population to increase 2.5 billion people by 2050, 66% of the global population. Additionally, there has been a growing trend regarding the rise of polycentric metropolitan regions, which set new challenges to development of mobility plans (United Nations Secretary-General's High-Level Advisory Group, 2017)

Such urban agglomerations’ shifts leave behind an inadequate transportation landscape where imminent threats to people’s livelihoods, like congestion and pollution together with the increasing obligation to address climate change emphasize the need for different solutions targeted to develop more sustainable cities.

Shared mobility is seen by experts as a key alternative for transportation services due to its potential to create major changes (Chen, Zahiri, Zhang, 2017). It is defined by Shaheen, Chan, Bansal and Cohen (2015) as “Rather than owning one or more vehicles, a household or business accesses a fleet of shared vehicles on an as-needed basis.” (p. 5) .

In 2017, the shared mobility market was mainly divided between three core regions: China at 24\$ billion, United States at 23\$ billion and Europe just under 6\$ billion. Under a positive scenario, the numbers of all three regions can increase up to 28% until 2030 (Grosse-Ophoff, Hausler, Heineke and Moller, 2017).

Even though the concept of sharing is still under debate as it does not have a clear definition, in the case of **peer-to-peer carsharing** it is characterized by allowing users to gain temporary access to other peoples’ cars in exchange of a fare. Private people put their own cars available for others to use which, consequently, leads to a reduction of the number of cars on the streets. In order to better address problems like traffic jams and parking in big cities, the sharing of vehicles is necessary if not essential.

One of the first documented carsharing practices dates back to Zurich, Switzerland, in 1948. An early cooperative called *Sefage* (Selbstfahrgemeinschaft) used a membership strategy to motivate people who did not afford to buy a car, but could share one, to participate. Over the following years other carsharing experiments tried to be implemented but failed including an initiative known as *Procotip*, launched in 1971 in Montpellier, France, and *Witkar* launched in 1973 in Amsterdam, the Netherlands (Doherty et al., 1987; Muheim and Partner, 1996).

Within the several modalities which make up shared mobility, peer-to-peer carsharing is one of the newest concepts under observation. Today, there are several sharing platforms in activity, GoMore in Denmark, and UbiGo in Sweden, which have been boosted by technology developments happening in the last decades.

Even though the number of such platforms is growing, little is known about what strategies to implement in order to persuade people to share their vehicles. Studies focused on the Portuguese market have not been extensive as well mainly due to its size. Portugal has 6.775.807 people living in urban areas comparing, for example, with Germany, 63.930.305 people (worldometer, 2020).

In order to reach such strategies' conclusions, renters' perceived needs, and their motivational barriers regarding sharing have to be comprehended, but such topics have not been well studied and understood, at the moment. The supply side is an essential part of such platforms as they are the base for its implementation. The importance of knowing suppliers needs comes from the necessity to understand the factors which can influence young individuals' acceptability on providing their own car for rental. It will allow to develop and plan strategies beforehand, which will serve as foundation to answer the research goal:

***How can peer-to-peer carsharing platforms be established in the Portuguese market?***

Portugal was the country chosen for the study in hands due to the fact that it is seen as an opportunity market, as it does not have strong peer-to-peer carsharing platforms, CarAmigo or Shareacar (Aspas, 2019), like the ones already implemented and succeeding outside, around the World. Additionally, focussing on the creation of a more socially inclusive, concerned, and ecological society there is a growing need for shared services to start with young individuals due to their particular characteristics: low income, more willingness to accept technological and social changes and their need for convenience, time efficient and low-cost solutions.

In order to better comprehend what characteristics, young individuals' value, when regarding owning a private car the following research question was developed:

**Research Question 1: What are the perceived needs of young individuals linked to owning a private car?**

In order to successfully advise and deliver value to young individuals it is important to start by performing two simple steps. Firstly, it is key to find a gap poorly or never studied and in need of development and secondly, to address the customers' requirements and needs. It is also stated, "In some instances, companies create their barrier, because they don't understand their customer in enough detail" (Chapman, 2020, p.1).

**Research Question 2: What are the motivational barriers which prevent young consumers to share their vehicles?**

In Portugal, as in many western European countries, private ownership has been in the foundation of the culture as a source of fulfilment and personal identity (Amann, 2017). To better understand and deconstruct such present barriers, it is necessary to conduct a deeper analysis over such topics.

Sharing platforms have in their core, user experience, which brings out the requirement to understand consumers needs and explore mobility related concerns of the target segment.

In the current chapter the topic of research is introduced, together with the statements which allow to reach conclusions and the objectives exposed. Then the theoretical literature relative to sharing motivations, owning private car needs and P2P Carsharing platforms were explained in the second chapter followed by an explanation of the methodology. Statements were created, based on already implemented platforms, with the intent to understand their validity on the Portuguese market and focus groups' interviews were performed in order to gather insights on the previously explained subjects. Young individuals' preferences for convenient and profitable solutions were analysed in the results chapter and a checklist for go-to-market strategies was developed. Lastly, conclusions, limitations and future research recommendations are discussed in chapter 5.

Through the combination of a theoretical background with focus group interviews' insights, it will be possible to further develop suggestions which will help future peer-to-peer carsharing platforms to better strategically position themselves, and target their Portuguese target segment.

## **2. Literature Review**

### **2.1 Sharing Economy**

Even though the concept of sharing has been known for ages, sharing personal belongings with total stranger is a relatively new topic of research which has increased scholars' curiosity over the past decades. Belk (2007) defines sharing as the "act and process of distributing what is ours to others for their use and/or the act or process of receiving or taking something from others for our use." However, there is still a grey area when it comes to defining the term. Belk (2010) characterizes sharing as a nonreciprocal, prosocial distribution with the absence of reciprocity expectation which means that, in his view, if sharing includes transactions of fees or any types of compensation it is no longer considered sharing. But not all researchers believe in the same statement. Botsman and Rogers (2010) see sharing practices and motives as independent from each other believing both notions stated above, can coexist.

Even though several studies touch the topic of sharing economy, no universal accepted definition has emerged. However, according to Oksana Gerwe (2020) the sharing economy is based in four features:

- Digital platforms which allow an easier communication and transaction between users.
- Operations are performed by ordinary people or microentrepreneurs (peer-to-peer transactions).
- Foster temporary access instead of ownership.
- Make use of underutilized physical assets or human skills.

Even though the basis of sharing is agreed amongst several scholars, there is no undisputed view on the motives why people share. Much is being studied regarding motivations and concerns of sharing schemes relative to products, accommodation and carsharing. However, even though it is a growing topic of research, one problem that seems to be linked to all to date studies is that researchers use people who are already taking part in these sharing models which makes the conclusions very limited and sometimes even inconsistent (Cherry, Pidgeon, 2018).

From an economic perspective, a strong economy is needed to support these sharing practices. Cherry and Pidgeon (2018) found that there is a large concern on the impact it can bring to the sharing industry. The implementation of sharing schemes can affect peoples' purchase power and as the fostering of these business models reduces the quantity consumed by the community, it could lead to an increase in products' prices and, consequently, increase unemployment.

Additionally, distrust about big corporations letting enter a new form of business model, and not knowing centralized sharing platforms management were also highlighted as big concerns for participants.

A huge discussion surrounds sharing social motivations. On one hand, internet allows people with same interests to form groups from much larger distances creating more connected and inclusive world and highlighted the fact that that sharing decreases the levels of isolation and loneliness, by making people communicate and diverging their attention to other matters rather than their own life. On the other hand, some participants of the Cherry and Pidgeon (2018) study stated these practices oppose trends, happening for the last decades, which say social bonds and values of community are being broken by technological developments. It is believed to increase social inequality, benefiting those with more or better assets or even undermine traditional sharing businesses like centres of donations for the sake of profit.

The COVID 19 pandemic also impacted sharing. Safety measures have increased social distancing and the working from home system, started singling people out. The current outbreak led several sharing companies and platforms to seek extra funding and financial help, due to distrust from the general public regarding hygiene policies implemented (Hossain, 2020).

Taking into consideration the implications and concerns of the sharing schemes in a wider context, it is important to understand the concepts of sharing mobility and its modalities, before entering and exploring the motivations and concerns focused on peer-to-peer carsharing.

## **2.2 Drivers for participating in the sharing economy**

As the products are shared, its service life decreases, meaning they do not last as long as it usually would. Therefore a cost benefit analysis, from an economic perspective is needed to point out if the decision is worth it. For example, in case of sharing platforms like Airbnb, owners are able to generate profit. According to a study performed by Earnest (2020), Airbnb hosts make almost three times more than users of other types of sharing platforms.

**How much do people make in the sharing economy?**

AVERAGE AND MEDIAN MONTHLY INCOME PER SHARING ECONOMY WORKER

RANK	COMPANY	AVERAGE/MO	MEDIAN/MO
1	Airbnb	\$924	\$440
2	TaskRabbit	\$380	\$110
3	Lyft	\$377	\$210
4	Uber	\$364	\$155
5	Doordash	\$229	\$100
6	Postmates	\$174	\$70
7	Etsy	\$151	\$40
8	Fiverr	\$103	\$60
9	Getaround	\$98	\$70
<b>OVERALL</b>		<b>\$299</b>	<b>\$109</b>

Data is based on tens of thousands of Earnest loan applicants.

**Table 1- Average and Median Monthly Income per Sharing Economy Worker**  
 Source: Yates (2020), *How much Are People Making From the Sharing Economy*, p.1

Sharing can be divided into two sides: demand and supply. Demand is simpler to understand and analyse as researchers can see users’ perspectives as their own and start the study from those initial arguments. Even though the increase in demand of such sharing phenomenon can be explained by the change in social technologies and attitudes (Bostman, Rogers, 2010), little is known about the motives on the supply side of a sharing transaction (Bucher, Fieseler, Lutz, 2016). Not only the classification of the terms is still being discussed but also, the reason why people give, to strangers, access to their belongings continues to be under investigation as it can differ extremely from case to case.

Besides one sharing just for the sake of sharing, with no other intention, participants in these types of scheme share in order to gain economic or resource related benefits (Gurven, 2006). Also, according to Belk (2007, 2010), when sharing happens, synergies can occur and increases the feeling of a reciprocal obligation with the other party.

Many participants are common across both sides of these business models, they are both consumers and suppliers. Cost, convenience and access are widely discussed topics that influence people’s willingness on participating on such practices. Users feel difficulties trying to balance both time and effort put in the task describing it as time consuming. Other concerns, of sharing practices, highlighted were product quality, condition, hygiene and safety (Cherry, Pidgeon, 2018).

However, several risks and liabilities can arise when an individual shares its personal possessions. As Belk (1988, p.139) stated, “knowingly or unknowingly, intentionally or

unintentionally, we regard our possessions as part of ourselves”, which means that in addition to the possible damage in the asset, the owner can also feel “loss or lessening of the self” (Bucher et al., 2016). This explains why people are so reluctant to share their belongings to strangers or people they do not trust (Belk, 2010).

Studies differentiate between different motives:

**Monetary motives** – Bucher et al. (2016) stated individuals share in order to save money, make extra gains or to make a more efficient use of their asset by distributing the asset’s fixed costs among users and charging a usage fee. These fees, currently present in the majority of transactions, serve, in most cases, as incentives or insurances that allow to cover costs and ensure the credibility of the party renting out its possession. Although monetary motives might seem necessary to build an initial trust between the two sides of the transaction, it might not be sufficient to change someone’s mind into sharing.

**Moral motives** – Individuals share because it is a more sustainable and environmentally friendly option. Moral motivations are in the core of sharing and is strongly linked to the concept of altruism, the will to help others (Belk, 2010). Ethical reasons can also be considered part of this type of motivations together with community support and mindful consumption.

**Social-hedonic motives** – Individuals share with the prospect of creating or maintaining already existent connections (John, 2013b). According to Belk (2010), sharing goes hand in hand with the trust and bonding an individual feels with their close ties. Social-hedonic actions can include: experience new things, meeting new people or better utilize one’s asset.

Motive	Illustrative comments
Monetary Motive	I had extra room and could use the extra money I wanted to make extra money with something I had and wasn't using at the moment. It seemed like a good idea to have my apartment paid for a month while I was away and not using it. I was going on a trip to California and I wanted to find someone to share the gas so I could save money. [Sharing is] an easy way to supplement current income and make something I already had “work for me”
Moral Motive	I've received similar help in my past and I thought [sharing] would be a good way to pass that on. I've been without a place to sleep comfortably before, so I wanted to reach out to someone that needed a hand for a day. Through sharing, I could help someone who may have needed it at the time. Just helping fellow travelers on their journeys. It seemed like a generous thing to do.
Social-Hedonic Motive	I wanted to meet like-minded people I thought sharing with others would help me get over people anxiety. [Sharing] allows [me] to be part of a community I was living in a new city and wanted to meet other people and thought it would be an interesting way to do it. Can give me a contact in a different city or country in case I travel there. My housemates and I thought sharing our apt would be fun. Sharing my apartment is a fun and interesting way to spend time with others. [Sharing] is always a fun adventure. I thought it might be exciting or, at least, interesting. I thought it'd be fun. I didn't get stabbed. It went ok [Through sharing] I get to meet people that I would never have met before ... and you can learn a lot from those people. Learn from their experience, get some ideas ... It is interesting to me to experience different and new cultures and foods and there really wasn't a better option than doing so from my very apartment.

**Table 2- Examples of sharing motives**

Source: Bucher (2016), *What's mine is yours (for a nominal fee) – Exploring the spectrum of utilitarian to altruistic motives for Internet-mediated sharing*, p.324

Environmental motivations are a topic of debate as some studies contradict others as to the relation between reasons and participation of users in these systems.

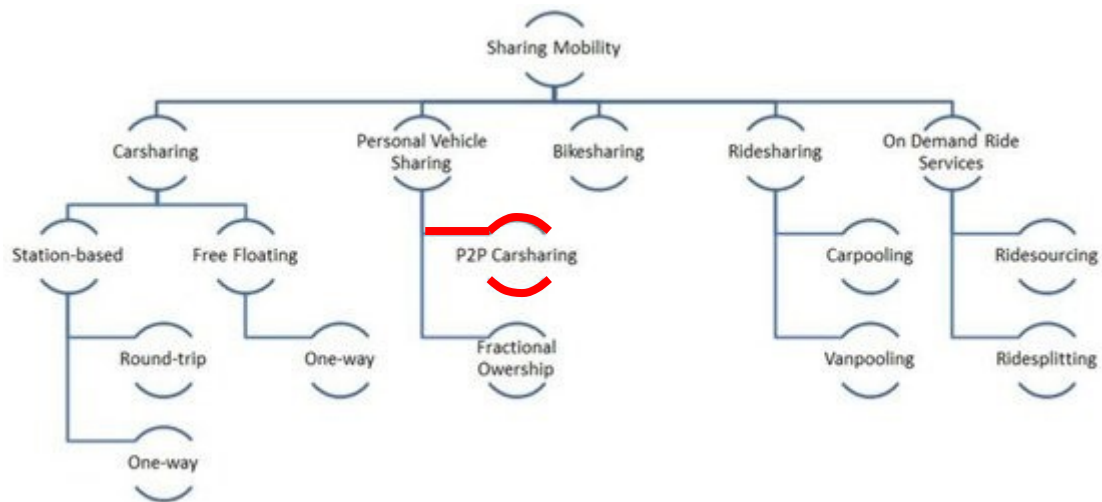
Subsequent studies have shown that not all motivations weigh equally. Underlying each sharing motivation are three constructs: materialism, volunteering, and sociability. From the findings provided by Bucher et al. (2016), it was stated that social-hedonic motives, “the positive affective reactions associated with the sharing experience” have the biggest impact on sharing attitudes. In particular, as sharing is seen as a social activity, it was seen that people like to meet other unknown individuals and interact with them. Additionally, non-monetary motives have a larger weight, both in general as individually, than monetary ones, indicating sharing is more voluntary and social action than a transactional one.

In this current thesis, sharing motives are explored more in detail, targeted to peer-to-peer carsharing. Specifically, it is explored the barriers that might prevent people from sharing their vehicle and ways to overcome such obstacles. In order to move on, an initial explanation of shared mobility and P2P Carsharing is necessary, as follows.

### **2.3 Sharing Mobility**

Sharing Mobility can be defined as the sharing of a transportation vehicle (van, car, scooter, bicycle) between the community (Machado et al., 2018). Even though the idea of owning a vehicle is still very present in people’s subconscious (Prettenthaller, Steininger, 1999), the subject has been growing in popularity for being a disruptive scheme which together with technological developments gives access to real-time information about the products, trip planning and booking.

According to Machado et al. (2018), sharing mobility services can be divided into five main categories: Carsharing, Personal Vehicle Sharing, Bikesharing, Ridesharing and On Demand Ride Services.



**Figure 1- Shared mobility and its modalities**

Source: Based on Machado et al. (2018), *An Overview of Shared Mobility*, p. 6, highlight made by author

The previously mentioned modalities are furtherly explained with focus on Carsharing and Personal Vehicle Sharing.

**i) Bikesharing** systems make bicycles available for customers in predetermined stations or area when required. Many advantages come from this mode of transportation from health related to financial or economic related benefits. It improves body health, social and leisure experiences and is cheaper and better to the environment. However, is very dependent from external conditions as weather, distance or from socio-economic factors like age, gender, and health status (Li, Kamargianni, 2018).

**ii) Ridesharing** can be defined as the use of the same vehicle by multiple consumers with similar destinations and departure places and time (Chen, Zahiri, Zhang, 2017.). As it encourages people to share cars and make use of unutilised seat space, it consequently reduces the number of cars on the road, being a more financial, ecological, environmentally friendly option and reducing congestion and stress related issues. It is divided between carpooling and vanpooling being the only difference the number of people which can fit inside the vehicle. The first option is characterized by having at least 3 commuters and a maximum of 5 people while the second option can have much higher limits.

**iii) On Demand Ride Services** allow people to access paid travel-sharing services transportation means through digital gadgets. This solution can be furtherly subcategorized between ridesourcing, use of private vehicles for paid on-demand rides and ridesplitting systems, people with similar routes share the same vehicle. It can bring several advantages from

customization to customers preferences to making a more efficient use of vehicle occupancy, respectively, and therefore reduce travel costs and time.

**iv) Carsharing** is characterized by the use of the same car by several people (Shaheen, Chan, Bansal, Cohen, 2015). Even though it shortens the life cycle of the vehicle because of its more intensive use, it is estimated that it can replace between 1 and 6.5 personal cars reducing drastically the amount always present on the road (Machado et al., 2018). In this type of system people think twice about impulsive trips because they become more aware of the costs it would involve (Fleury, Tom, Jamet, Colas-Maheux, 2017). Moreover, the types of vehicles available are usually newer and more fuel efficient reducing the carbon footprint and creating a positive impact on the environment. However, some researchers do not have the same view on the subject. Murillo, Buckland and Val (2017) state the low costs associated with the service and the availability of newer and better cars can make people use cars more, leading to the same problems described above (boomerang effect). This type of shared mobility model can work in three different ways: station-based round-trip, station-based one-way or free floating. For this last option there is the need for a large fleet of assets to always provide an available nearby car to the user.

Presently, carsharing systems are available in more than 30 countries. According to studies by Shaheen and Cohen (2007), since the last decade, carsharing services have increased in many countries in North and South America (mainly USA, Canada, Mexico, and Brazil), Europe, and largely in Asia. In Germany 2016, for example, station-based carsharing systems allow the car to be picked up and delivered in the same station (station-based round-trip) or it can be picked up in one station and left in a different place (station-base one-way trip), which had an 18.8% increase in customers, whereas free-floating carsharing, where users pick up and drop off the vehicle anywhere within a predetermined area, saw a 51.0% increase.

To understand the viability of the carsharing practices Litman (2015) conducted a study taking into consideration two variables (charges and running costs), carsharing would be beneficial for people who drive 4000 annual miles or less.

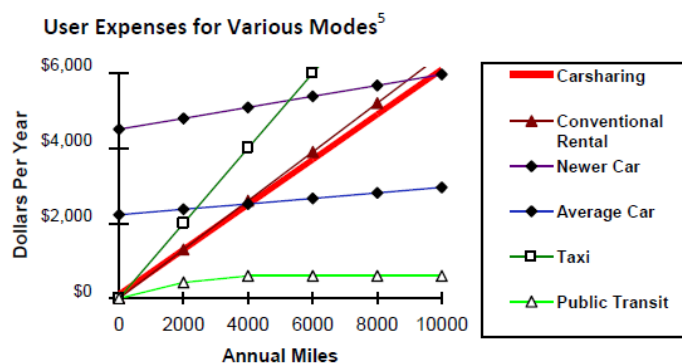


Figure 2- User Expenses for Various Modes of Transportation  
 Source: Litman (2015), Evaluating Carsharing Benefits, p.3

On the demand side, users of these types of systems seem to have similar characteristics starting by the fact that they have strong environmental motivations. Additionally, financial motives play a big role as this scheme is linked to free parking and low prices. It also brings so much more advantages. It allows people to enjoy the benefits of owning a private car with minimal responsibilities, it can be accessed the service very easily and it facilitates the daily routine improving quality of life.

However, on the supply side, little is known about the potential groups which could participate in these types of models (Krueger., 2016). Even though the target focused on this study is young individuals, a study performed by Fleury et al. suggests that the average age of users for sharing practices is between 30 and 39 years. Additionally, they perform short trips, they are well educated and do not struggle financially. However, they tend to switch very easily from one mean of transportation to another (Signorile, Larosa, Spuru, 2018).

Beirao and Cabral (2007) studied the subject of advantages and disadvantages for personal cars and reached the following results:

Advantages	Disadvantages
Freedom/ independence	Cost
Ability to go where I want	Difficulty of parking
Convenience	Cost of parking
Rapidity	Stress of driving
Comfort	Traffic
Flexibility	Waste of time in rush-hour traffic
Know what I can expect	Pollution
Safety	Accidents
Having my own private space	Isolation
Listen to music	

Table 3 - Advantages and disadvantages of owning a private car

Source: Beirao and Cabral (2007), Understanding attitudes towards public transport and private car: A qualitative study, p. 478

From table 3 it is clear that, even though private cars bring several benefits they are also linked to downsides. People take their decision on the value of owning such vehicle according to the importance given to each attribute.

For carsharing, economic motivations were found to be the most impactful on people's decisions as for accommodation and sharing of ordinary products (Bocker, Meellen, 2016).

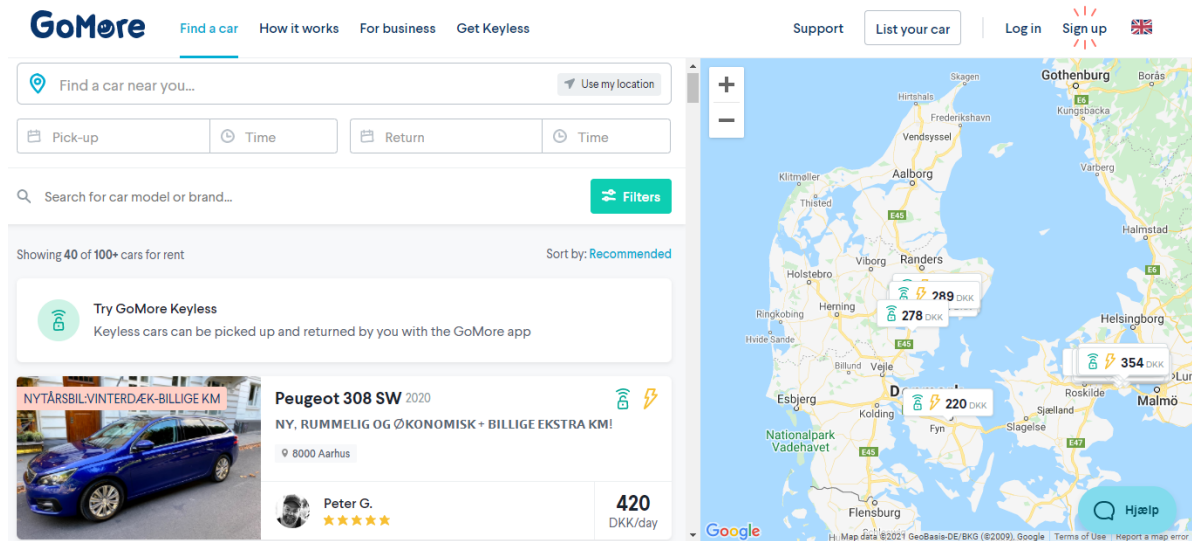
v) Lastly, usually performed through online platforms, **Personal Vehicle Sharing** is a scheme in which private vehicle owners rent their assets to other drivers on a short-term basis (Correia, Jorge, Antunes, 2014). It can be put into practice as fractional ownership, a small group of people share the ownership of one vehicle and its expenses, which bear some risks as if one member leaves the agreement, the other lessees have to pick up the costs, or **peer-to-peer carsharing** which is the topic under analysis and which will be furtherly explained.

## 2.4 Peer-to-peer Carsharing

Peer-to-peer carsharing, the topic under observation, employs private cars being rented out to other individuals or companies by a predefined fare. Usually it follows a station-based round-trip system, for instance the renter picks up the car at the owner's place and returns it to there. Contrary to other carsharing models, the owner of the car has the power of confirming or denying the access of the person who wants to use the asset. After an agreement between the two parties, as the negotiations are normally performed through a facilitating platform, which connects both sides, a certain fee is paid to this operator. It promotes the use of underutilized assets, by reducing the time these are parked, as well as reduces costs for the renter and it generates profits for the owner. However, predictability, reliability and the differences in the age of the vehicles as well as their maintenance and wear and tear status seem to be amongst the major barriers to the use of peer-to-peer carsharing (Shaheen, Martin, Bansal, 2018). Another problem encountered was also the lack of readiness of insurance companies regarding sharing models as companies had to go around industry frameworks to put their organizations running (Barbour, Zhang, Mannering, 2020).

Several companies already put into practice these carsharing systems. In 2017, the US had six operators serving almost 3 million users with a fleet of around 130.000 vehicles for use (Shaheen, Cohen, Bayen, 2018). Also in Europe, two examples of already established systems in Europe, are UbiGo in Sweden and GoMore in Denmark (Appendix 5 and 6).

To better comprehend how such platforms are operating GoMore's platform was analysed in more detail:



**Figure 3- GoMore Rental Page**  
Source: GoMore

GoMore presents several mobility options for owners and customers. The platform offers carsharing and ridesharing services to its users, so people can offer shared rides to each other or lease a car from GoMore. However, this research will only focus on the P2P option of the organization, where a private person rents a car from another private person.

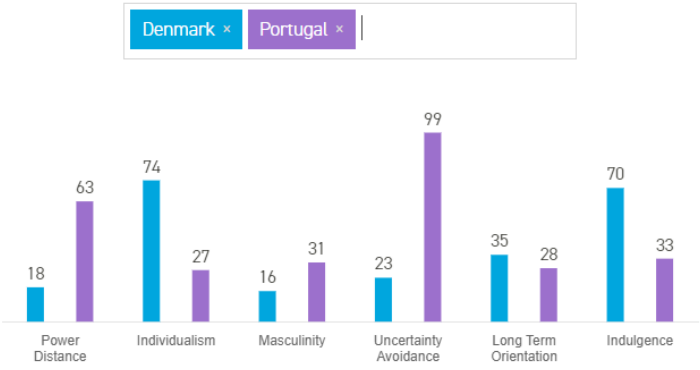
In an initial stage, consumers install the firm's app on their gadgets and sign up by providing their personal information, identification, and driver's license. On the customer side, only after acceptance they have the possibility of choosing between the different opportunities available nearby. Regarding operating procedures, for short time rentals (hours, days), the organization can provide, to vehicle owners, the installation of a keyless technology which allows people to access the car from the GoMore app and use it, without the need for an intermediary. According to their website, this feature increases bookings by 5 times comparing to normal rentals. Before and after the car is returned to the same location, the user documents the cars conditions through photos and the rest of the information (fuel and mileage) is automatically updated. However, if the owner chooses not to install such feature, the customer needs to arrange a meeting in order to retrieve the key and enjoy the ride. At the end of the experience, the platform allows consumers to rate both the car and the owner.

Owners benefit from several upsides. They choose which periods their car is available for other people to use, every rental includes car and liability insurance and is the owner who chooses the price charged.

A study performed in San Francisco and Oakland by Ballús-Armet, Shaheen, Clonts and Weinzimmer (2014) aimed to understand why people would rent out their cars showed that financial reasons played a big role in peoples’ decision. Even though socio-hedonic are the main motivations for sharing within a society, when it comes to shared mobility and peer-to-peer carsharing economic compensations are very important to consider (Shaheen et al., 2018).

Studies also showed Caucasians, having a higher ease of access to vehicles, have a bigger tendency to be more distrustful to share their vehicles (Berube, Deakin, Raphael, 2006; McKensie, 2015). Nevertheless, it is important to have in mind that race is a controversial topic to handle when conducting a study for its complexity (Barbour et al., 2020).

However, due to culture differences, there is still the need to better explore the motivations and learn more about barriers and go-to-market strategies in Portugal. Taking into consideration Hofstede’s 6 cultural dimensions Portugal, comparing for example with Denmark, it is possible to identify 4 major differences. According to Hofstede Insights, Power Distance, extent it is believed power is divided unequally, and Uncertainty Avoidance, extent to which people feel threatened about uncertainty, have much higher values in Portugal while Individualism, interdependence between members of society, and Indulgence, extent people control their impulses, are much higher in Denmark.



**Figure 4 – Comparison of Hofstedes’ cultural dimensions between Portugal and Denmark**  
 Source: Hofstede Insights

This shows the necessity to better study and comprehend needs, barriers and strategies in Portugal. This study is going to focus on the barriers related to the reasons why people are so sceptical about sharing their personal vehicles and then, suggest go-to-market strategies which platforms can implement to overcome them.

Go-to-market strategy can be defined as the business plan which allows the product to reach its targets. It includes the combination of what the product offers, how it is distributed and who is the target audience (Kozubska ,2020). Preparing strategies in advance is essential to achieve competitive advantage and to improve user experience by offering better and more targeted solutions. Because peer-to-peer carsharing is considered a new concept, pricing strategies are still a question mark. Operators differ on user permissions to choose the prices, while some let the providers choose others set the price automatically. However, there is a growing trend towards sophisticated technologies which set the price automatically through advanced pricing engines (Benjaafar, Kong, Li, Courcoubetis, 2018). Also, according to Cheng, Luan, Tang and Zhou (2018), reserved parking space and regulation of drivers in an initial stage of the sign in process are two of many market strategies which can compel people to participate in carsharing practices.

### **3. Methodology**

#### **3.1 Research design**

The purpose of the study is to analyse people's motivations regarding the sharing of their personal vehicles and develop go-to-market strategies which can overcome the barriers encountered.

In an initial stage, it is essential to base the study in a theoretical foundation as it allows the researcher to support his/her assumptions on predetermined insights. The research was organized following 2 groupings. The first regards the selection of the target segment studied:

- Creation of list of target segments by age;
- Filtering list according to sharing economy definition and properties.

The second grouping regards the collection of the data needed, and follows four steps which will lead to the intended result.

- Identification of elements of existent go-to-market strategies;
- Focus group interviews with possible users;
- Validation of statements.

It was used a focus group methodology in order to obtain young individuals' insights linked to the research questions. Through this approach, additional questions are generated, and an environment of discussion is enhanced instead of answering directly to the questions asked, as it happens on 1 on 1 interviews or online surveys (Amman, 2017). In this specific study, a non-directive moderating method was used, as the goal was to get the discussion running between group members, with as few interventions as possible from the moderator. The focus groups were spread through the month of November 2020, and an average of 4 participants per group was considered the optimal amount for a constructive and revealing argumentation.

### 3.2 Data collection and analysis

For the selection of the target segment studied, the following steps were taken into consideration:

*Step 1) Creation of list of target segments by age*

The starting stages of this research was focused on dividing the overall population in subgroups according to an age criteria. Firstly, as the study focuses on carsharing, all possible candidates would have to have more than 18 years of age. And secondly, after a careful analysis of scientific papers and articles, the following table was constructed segmenting people according to their generation:

Age Range	Generation	Characterization
[18-24[	Generation Z	People from this group have a more social mindset where popularity and social status play a big role on the decisions they take. They pay special attention to trends and exclusive brands. They have grown in the middle a connected world spending a big part of their days playing or using their smartphones.
[24-40[	Generation Y	People from this group tend to start worrying about their professional career and starting a family. As Gen Z, they care about their social status however they value more the experience provided by the brand. They are comfortable with technologies and have a big presence in several social media platforms.
[40-56[	Generation X	People from this group opt for more conservative, clean and secure options as they have a financially stable life. They prefer transactions in person and reading newspapers in paper. Not much presence in social media and rough use of smartphone.
[56-75[	Baby Boomer	People from this group opt for more secure and health-conscious options as they enter the new stage of life, retirement. They put a big importance in tradition and distrust change. They do not have much knowledge around technology world.

**Table 4 - Segmentation of population by age**

Source: Boomers, Gen X, Gen Y, and Gen Z Explained, 2020, and geoTribes Segments in Summary

*Step 2) Filtering list according to sharing economy definition and properties*

The group this study is going to focus on, is young individuals from 18 to 39 years old, generations Z and Y. Due to the fact that this specific group does not make, in average, as much money as their older peers, they are prompter to use any resources available to generate extra income. Additionally, as these practices are performed through digital platforms, the target segment chosen is more likely to adopt such practices as it is more willing to accept

technological changes. Also, for the implementation of such platforms, some social transformations need to take place and, as both Gen X and Gen Z grew up in periods of major changes, they are more probable to start such innovation. Furthermore, their need for convenience, time efficient and low-cost solutions, characteristics of the sharing ecosystems, makes them the prime candidates for the study.

For the collection of the data needed, the following steps were taken into consideration:

*Step 1) Identification of elements of existing go-to-market strategies*

In order start building the final framework, it was crucial to understand what strategies were already being implemented. Having into consideration procedures already in practice by companies such as GoMore it is important to highlight the features which this platform offers. Namely, it provides information about the amount earned by the supplier (depending on the number of days the car is going to be available on the platform); the price is chosen by the user; insurance to cover damages to the vehicle; the installation of keyless access with no cost involved to the user; and the option of being able to choose which people can use the car. However, as it is a relatively new concept, organizations are still testing their practices' validities as it is the case of GoMore.

For the focus groups' discussions to generate the best outcomes possible, it was crucial to prepare some hypothetical situations (Table 5), based on the theoretical literature, which would be tested and possibly lead to the appropriate scenarios. With the predefined statements, it is easier to not only get the information needed as well as document it.

The collection of the data was made through semi-structured interviews, with predefined closed and open questions (Appendix 2) asked on the spot in order to create an environment of discussion. The 31 participants from 9 different groups have ages comprised between 18 and 33 years old (Table 4). The respondents are all from Portuguese nationality and include both students and employed individuals, with different levels of income. Getting, from the interviewees, such a wide range of results within each characterization criteria, enhances the viability of the study as it leads to a higher level of the findings' accuracy. (Felix, Lorenc, Melendez-Torres, O'Mara-Eves, Petticrew, Richardson, Thomas, Thomas, 2016). All the group interactions were conducted through the platform Zoom with an average length of 40 minutes.

Group	Participant ID	Age year	Place of Resident	Employability Status	Level net income €	Most used mean of transportation	#Cars	Car average travel time
1	A1	23	Big city	Student	[0-500[	Car	1	30 minutes
	A2	20	Suburbs	Student	[0-500[	Car	1	30 minutes
	A3	22	Big city	Student	[0-500[	By foot	1	15 minutes
	A4	20	Big city	Student	[0-500[	Car	1	15 minutes
	A5	19	Big city	Student	[0-500[	Public Transportation	0	-
2	B1	23	Suburbs	Student	[0-500[	By foot	1	60 minutes
	B2	22	Big city	Student	[0-500[	Public Transportation	1	30 minutes
	B3	31	Small city	Employed	[1000-2000[	Public Transportation	0	-
	B4	22	Big city	Student	[0-500[	Car	1	15 minutes
3	C1	23	Big city	Student	[500-1000[	Public Transportation	1	30 minutes
	C2	23	Big city	Student	[0-500[	Car	1	30 minutes
	C3	25	Suburbs	Student	[0-500[	Car	1	1 hour
	C4	22	Small city	Student	[0-500[	Public Transportation	0	-
4	D1	23	Big city	Student	[0-500[	Public Transportation	0	-
	D2	26	Big city	Employed	[500-1000[	Public Transportation	0	-
	D3	24	Big city	Employed	[1000-2000[	By foot	1	15 minutes
	D4	26	Big city	Employed	[1000-2000[	Car	1	15 minutes
5	E1	23	Suburbs	Employed	[500-1000[	Motorcycle	2	30 minutes
	E2	25	Suburbs	Employed	[500-1000[	By foot	1	60 minutes
	E3	30	Small city	Employed	[1000-2000[	Car	1	15 minutes
	E4	33	Big city	Employed	[1000-2000[	By foot	1	15 minutes
	E5	20	Suburbs	Student	[0-500[	Car	1	30 minutes
6	F1	22	Suburbs	Employed	[1000-2000[	Car	1	30 minutes
	F2	22	Suburbs	Student	[0-500[	Car	1	30 minutes
	F3	22	Suburbs	Student	[0-500[	Car	1	30 minutes
7	G1	27	Big city	Employed	[2000-4000[	Car	1	30 minutes
	G2	18	Big city	Student	[0-500[	Public Transportation	1	15 minutes
8	H1	22	Big city	Employed	[500-1000[	Public Transportation	0	-
	H2	18	Big city	Student	[0-500[	Public Transportation	0	-
9	I1	20	Big city	Student	[0-500[	Public Transportation	0	-
	I2	29	Big city	Employed	[1000-2000[	Bicycle	1	15 minutes

*Table 5 - Overview of participants' socio-demographic characteristics*

The interviews were recorded and when finalized, translated into a word document, using a speech to text application. In the end, the information was summarized, and the top answers were selected.

The information gathered from the interviews together with the evidence taken from the articles are the base of this study and will allow a better understanding of why people would or would not participate in P2P Carsharing practices and the go-to-market strategies that allow to overcome them.

<b>Assumption</b>	<b>Motivation</b>	<b>Statement</b>
Young individuals will share their cars	Economic	<p>S1) I believe that showing the <b>calculation of earnings</b> will drive young individuals to share their vehicles because they will have the information available about how much they will earn, removing concerns about viability of sharing practices.</p> <p>S2) I believe that having an <b>insurance</b> which covers all costs will drive young individuals to share their vehicles because they will not be concerned about being responsible for covering the damages made by other people.</p> <p>S3) I believe that offering benefits like <b>free parking</b>, will drive young individuals to share their vehicles because they will not only be generating extra income but also saving money.</p>
	Environmental	<p>S4) I believe that <b>showing the figures of the saved fuel, Co2, pollution reduction and other consequences</b> of carsharing practices will drive young individuals to use other peoples' vehicles because they will be able to see that the sharing practices have a real impact on the environment.</p>
	Social	<p>S5) I believe <b>having control over the vehicle's features (price, access)</b> will drive young individuals to share their vehicles because they can customize their profile according to their preferences.</p> <p>S6) I believe that the <b>regulation of drivers</b> in an initial registration phase will drive young individuals to share their vehicles because they will have a bigger trust and security on the person who is going to use the vehicle.</p> <p>S7) I believe that providing <b>keyless access</b> to enter and drive the car will drive young individuals to share their vehicles because they do not have to wait or arrange a meeting with the user. People can just go directly to the car and drive, increasing convenience.</p>

*Table 6 - Illustration of statements to be validated*

### *Step 3) Validation of statements*

During the discussions, it was important to understand the true reasons that would prevent people from sharing their own cars.

To validate the statements, one of the questions answered during the interview was:

*“What if there was a way of removing problem X? What if Y was offered?”*

Depending on the answers given by the focus groups' participants, X and Y would be adjusted, which would allow to test the possibilities suggested and react according to the responses presented.

Following the interviews and the documentation of the answers provided, it would be possible to validate the statements previously tested, and add new information according to concerns and insights exposed.

The motivational statements defined will be the elements part of go-to-market strategies which will, consequently, foster adoption.

## 4. Results and Discussion

### 4.1 Results

#### 4.1.1 Benefits and disadvantages of owning a car according to young individuals

During the focus groups, young individuals highlighted some key benefits and disadvantages which they thought were linked with owning a private vehicle. The results found verify the literature in the theory section and were further explored in the following subchapter. In order to understand the relevance of each attribute, the features were arranged according to their level of importance, being the top the most and the bottom the less mentioned.

#### Advantages and disadvantages of owning a private vehicle

Advantages	%	Disadvantages	%
Speed	100	Cost	100
Availability	100	Traffic	52
Comfort	90	Difficulty in parking	48
Flexibility	81	Pollution	7
Safety	52		
Having my own private space	42		
Freedom	39		

*Table 7 - Advantages and disadvantages of owning a private car according to young individuals*

#### ***Time***

Time was in between the most mentioned advantages. Not surprisingly, a large part of the population who mentioned time as a crucial element, happened to be employed. As it is a scarce resource in their cases, it is understandable the reason why they do not want to spend any extra time planning the trip or waiting for third parties.

*“With my car I do not have to waste time on my smartphone looking and waiting for other possibilities like Uber or Taxi. I know where I have it and I just have to decide when to use it.” (Group 5, Interviewee E2)*

Not only pre journey but also during the trip, participants showed the impatient nature of humans.

*“Time is of an essence in my case. Whenever I need to go from point A to point B, I want to do it as fast as possible and if I, for some unknown reason, do not get to my destination in time, I have no one else to blame but myself.” (Group 6, Interviewee F1)*

Even though many mentioned time as a factor for investing in a private vehicle, they also stated that it had a huge downside when living in major cities which was looking for parking. Even if they would arrive fast to their destination, they would end up wasting a lot of time looking for a place to park their car. Additionally, traffic was also identified as a big disadvantage.

*“When living or working in a big city you have to always pay attention to the time you start driving. If you drive between certain hours you will be stuck in traffic and will waste time which could be used for productive tasks.” (Group 2, Interviewee B1)*

Major cities are known for their intense growth and increased congestion concerns. People’s routines are dependent on traffic. They have to plan ahead the course they are going to take and the time they leave their homes and jobs just because of traffic.

### ***Convenience***

It is important to define convenience in an initial stage of the analysis. According to Oxford Learner’s Dictionaries, convenience is every task which has the characteristics of being useful, quick, and easy to do.

During the course of the discussions, convenience was the most mentioned advantage when asked why they would invest in a private vehicle. All groups talked about how important convenience is, when in need of moving from one place to another. Nevertheless, it can be deconstructed into several other benefits. Availability was one topic which came up in every conversation.

*“The biggest advantage I recognize in owning a car is convenience. Whenever I need to go somewhere, I know it is right here and available and also, I can reach*

*the place where I want to go faster. This, if there is no traffic.” (Group 3, Interviewee C2)*

Interviewees highlighted the importance of this feature when putting together sharing mobility schemes, the importance of not having to worry if there was a car available because they knew theirs was.

On the other hand, some interviewees focused on the point of flexibility.

*“Having my car allows me to drive to multiple stops in a single run without having to worry about schedules and destinations, it gives me freedom to make choices on the spot. (...)” (Group 9, Interviewee I2)*

The ability to react to sudden situations, freedom of choice, someone could not predict or even changing course due to traffic, were also important aspects described in the discussions.

### **Comfort**

Comfort was an additional topic approached during the conversations.

*“It is important for me to feel comfortable when driving and owning a car allows me that. As it is an asset of mine, I manage it as I want and, as I feel it is my safe space, I do whatever I feel like doing.” (Group 3, Interviewee C1)*

People often see their cars as an extension of their homes. Interviewees wanted to be in a room which allows them to think they are secure and relaxed, sensations they feel whenever they enter their vehicle. Additionally, respondents also mentioned the fact that they prefer to have their own car to avoid any complications generated by external factors.

*“Not only because of all this situation of pandemic that we are going through but usually I do not feel comfortable going somewhere, in any mean of transportation, with people I do not know. They might be sick, they might assault you, you never know what to expect.” (Group 2, Interviewee B3)*

Concerns about security were also expressed. People felt more secure driving in a space alone or with people they know and trust, than with strangers.

### **Cost**

One major point mentioned and discussed by focus group' participants was the fact that owning a private car was expensive to acquire and maintain as it was linked to several external costs.

*“(...) For me the only problem with owning a car is the amount of money I would have to spend not only to get it but also in a yearly basis on petrol, inspections, revisions, parking and several other problems which can arise during the year.”*

*(Group 9, Interviewee I2)*

However, 29 of 31 participants also mentioned that it was a necessary cost to get the many advantages that a personal vehicle brings along.

### **Pollution**

Only 1 participant mentioned his environmental concerns as a motive for not investing in a private vehicle.

*“I understand there are electric and other non-polluting vehicles, but they are still very expensive or logistically inconvenient. Otherwise, you have vehicles who run on diesel or petrol which are one of the major responsible for global warming and climate change.”* (Group 3, Interviewee C3)

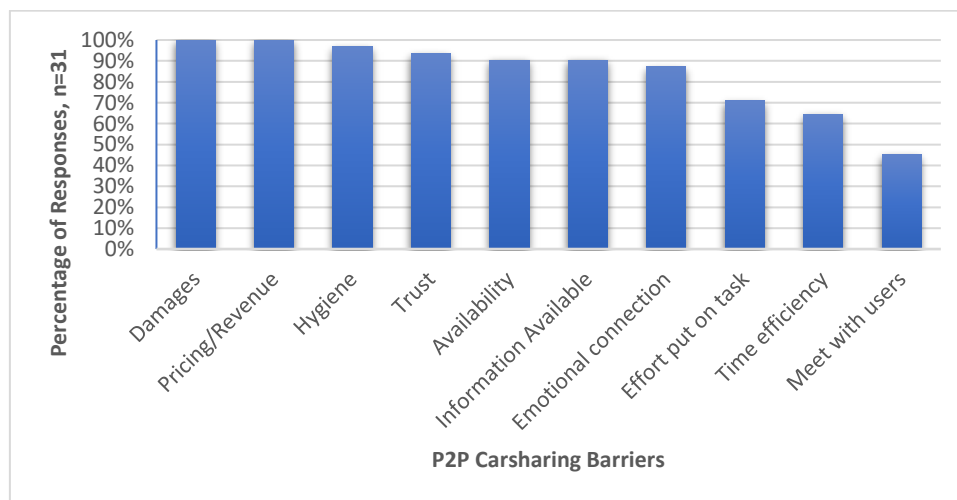
Even though it not discussed extensively, young individuals are becoming more and more aware and concerned about climate changes (Terry, Murray, 2020) and vehicles are becoming greener and more efficient. It shows the fact that certain car manufacturers and governments are tackling such environmental concerns.

#### 4.1.2 Motivational barriers which prevent young consumers to share their vehicles

After being shown how GoMore is operating their sharing platform (Appendix 4), both negative and positive responses were given when participants were asked:

*Would you consider sharing a car of your own? Why?*

However, one side clearly prevailed. Taking into consideration the responses recorded, 94% of the participants would not share their own cars with other people. This shows the fact that young Portuguese individuals are still not familiarized with these kind of sharing practices. It brings both positive and negative notions. On one hand, it allows a larger number of insights about the barriers, on the other hand, it illustrates the need for a larger number of strategies to be implemented in order to persuade people to share their cars. In this subchapter, it is going to be explored how sharing schemes impact the needs of young consumers and the previously mentioned benefits.



*Figure 5 – Barriers Identified by young consumers regarding sharing their vehicles.*

#### **Price**

In order to persuade someone to participating in an activity it is important to create value for such individual. The same happens when it comes to sharing practices, people would only participate if it generated profit for themselves.

*“The first thing that comes to mind is obvious. I would only share my car if I had any kind of profit. (...)” (Group 8, Interviewee H1)*

All groups started by agreeing that in order to share their personal cars, they would have to gain monetary and/or other types of compensations, in exchange for letting other people use them. Additionally, it would cut costs as it is seen as an advantage which would allow to purchase and maintain better and newer cars or, on the other hand, invest in extra assets and then register them also on the platform as it would lead to extra compensations.

### ***Trust***

Respondents mostly lacked on trust on other drivers. The majority felt uncomfortable thinking about their car being driven by a stranger.

*“It concerns me a lot that other people are driving my car. They might not feel the same responsibility and are probably going to be more reckless when it comes to taking care of the vehicle.” (Group 2, Interviewee B4)*

Additionally, interviewees worried about damage responsibilities. Even if visible damages could be easily traced to previous drivers, the wear and tear the car undertakes is not visible and hard to measure. Not only were the groups worried about their cars’ handling by other individuals, but they were not enjoying the idea of having to remove all their personal belongings from the car afraid other people might steal them (Group 1, Interviewee A5).

The need for more information regarding the generation of profits was also a discussed topic among groups. There was a general distrust about the viability of the sharing practices.

*“Even if I would think about sharing a car of mine, I would still have to pay for fuel, I would have to pay for any damages which cannot be traced plus wear and tear plus other expenses that might appear, is it really feasible?” (Group 4, Interviewee D2)*

They feel the effort put on managing their car on the platform and the costs linked to it is not worth the compensation they are getting as the platform would have to charge a price high enough to be lucrative, but low enough in order to compete with substitutes (Group 1, Interviewee A5)

## **Convenience**

When it came to convenience, 90% of the participants felt they were losing a lot in the element of availability and 65% in time efficiency.

*“If I would share my car, I would lose a big part of the freedom I have. If I need to make a spontaneous trip, I no longer have my mean of transportation and have to search for another one. That costs time and increases the effort put on a task I could avoid by just leaving my car put.” (Group 5, Interviewee E4)*

For participants, having and knowing the car is available, eliminates any concerns they might have, because they know they have, and where they have, an option available in case they need, which cannot be assured otherwise (Group 4, Interviewee D1).

Taking into consideration the above-mentioned benefits, participants usually like to arrange the environment to their likings and would also complain about the amount of time they would have to spend putting their car the way they liked it after it had been used by third parties.

*“Also, every time I would use my car again, I would waste unnecessary time putting it all as it was.” (Group 7, Interviewee G1)*

People look for easier and more efficient methods to perform their daily tasks. Increasing complexity and decreasing efficiency is seen, by participants, as a major change in their habits.

## **Comfort**

Again, as previously mentioned, people have their own ways and see their cars as part of themselves. So, participants showed that they dislike when others change the way they set a certain personal environment.

*“(...) I would have my seat, my mirrors, my radio, my whole car set my way and I would not like if people started changing and messing with it.” (Group 7, Interviewee G2)*

Interviewees highlighted the importance of assuring hygiene, as an essential element for participating in sharing practices.

*“Even if I have some information on the people who used the car before, I do not know what they have done on the car, if they are sick and left trace elements behind. (...)” (Group 7, Interviewee G2)*

The need for a clean vehicle happened to be a big concern for a huge number of drivers.

The results showed the two main concerns young individuals have regarding sharing their own car are damages done to the vehicle and the profit generated. Additionally, the need for a clean vehicle was also a requirement for this target, together with being able to trust the people which are going to use the car and availability of means of transportation. Also important was the type of information presented to the public in an initial phase of interaction and the level of effort car owners had to put into the tasks related to the management of the vehicle. Lastly, emotional connection, time spent on platform looking for new transportations or rearranging the car to its initial state and the concern relative to meeting with the users.

## **4.2 Discussion and Interpretation of Results**

Considering the responses exposed on the previous Subchapter, 4.1 Results, which explored personal car benefits according to young individuals, the findings from the theoretical background, were verified. However, together with the insights relative to the barriers linked to P2P Carsharing practices, it was possible to start examining main problem statement:

*How can peer-to-peer carsharing platforms be established in the Portuguese market?*

To start answering the statement in question, two steps are going to be performed. Firstly, following the focus groups' interactions, it is possible to start validating the statements defined before the interviews. A statement was considered validated if 50% or more participants agreed on it as it represents the majority of the population. Secondly, through deep market research and participants' suggestions, new ideas for implementation of elements of go-to-market strategies were developed, described and analysed. Such approaches are important to plan because they foster adoption of novel products and services. They are the base for targeting, positioning and approaching a certain segment and succeed.

#### 4.2.1. Validation of Motivational Statements

In an initial stage of the research and based on external literature, seven statements were created to be further analysed and validated through focus groups participants' insights. The following table gives an overview of the results.

***S1. I believe that showing the calculation of earnings will drive young individuals to share their vehicles because they will have the information available about how much they will earn, removing concerns about viability of sharing practices. (VALIDATED ✓)***

The viability of sharing practices was a widely discussed topic with 18 of the 31 participants, mentioning they would not participate not knowing the profitability and not having all the information. The process of providing this simple calculation addresses the concern of *lacking information* and *distrust regarding the profitability* of such schemes. Furthermore, follows the economic motivations explained in the theory chapter, which states people participate in carsharing practices following monetary reasons. To conclude, it can be stated that providing the calculations of earnings is beneficial to make people participate in P2P sharing practices.

However, the visibility given to such information and how it is shared is also an important factor for possible users, and is a factor which has to be taken into important consideration. During the focus group discussions, when presented with examples of how already established carsharing platforms show their figures (Appendix 4), several participants (14/31) pointed out the fact the information was not easy to find and it was not highlighted.

*“I would say that for someone which is not completely in need for extra income and would only share the car to gain some extra money, I would only check the main page and see what the platform is about, I would not search that deep into the platform. However, I think if it was on one of the first piece of information I would see, maybe I would think more openly about the topic.” (Group 1, Interviewee A4)*

The statement was validated.

***S2. I believe that having an insurance which covers all costs will drive young individuals to share their vehicles because they will not be concerned about being responsible for covering the damages made by other people. (VALIDATED ✓)***

One big concern for sharing platforms is insurances. As the owner's assets are used by several individuals, many insurance companies do not have policies which cover such practices, which leads a very long and hard process of development of new policies, which would be targeted to such schemes.

Responses given from different groups indicate young consumers see the advantage of having a car insurance which covers all costs. This strategy addresses the problem of *distrust about strangers* and also *concern about profitability*. Knowing that any damage is covered, relaxes renters regarding expenses responsibility as they will not need to pay for users' mistakes.

However, some concerns also arise involving the time, in case of damage, they would need to spend dealing with the people in charge both from the sharing platform and insurance company.

***S3. I believe that offering benefits like free parking, will drive young individuals to share their vehicles because they will not only be generating extra income but also saving money. (VALIDATED ✓)***

Indeed, the offering of advantages which improve the driving experience leads to an increase on drivers' satisfaction. One major concern when it comes to the driving "journey" is parking. Specially in big cities with lots of traffic, people take several minutes if not hours looking for a space where to put their cars. The option of offering parking might appeal to young individuals as it addresses *time efficiency* needs.

*"Yes, I agree. Not only would I start using the platform because of that detail but I also might consider sharing my car as the costs I spend on parking would reduce dramatically." (Group 4, Interviewee D4)*

Additionally, to offering free parking, interviewees also suggested providing several parking spaces which would be reserved to cars used in sharing platforms.

***S4. I believe that showing the figures of the saved fuel, Co2, pollution reduction and other consequences of carsharing practices will drive young individuals to use other peoples' vehicles because they will be able to see that the sharing practices have a real impact on the environment. (FALSIFIED ✗)***

Results showed that people would not participate more, if it was presented the impact sharing practices have on the environment. The reason behind such occurrence is the fact that people which are more environmentally oriented, and are willing to make changes to their routines and everyday life, already participate in greener transportation practices, riding bikes, walking or taking public transportation. Others would not change their habits just by looking at pollution or environmental related statistics.

*“I am keen to environmental related causes and do the possible to as green as I can. However, the impact we have here in Portugal is so small that I do not feel is worth the trouble of changing such a big part of myself.” (Group 6, Interviewee F3)*

As the impact was not seen directly, people do not feel compelled to change their practices and so the hypothesis was not validated.

***S5. I believe having control over the vehicle's features (price, access) will drive young individuals to share their vehicles because they can customize their profile according to their preferences. (FALSIFIED ✗)***

Such hypothesis raised a large debate as different motivations were exposed. On one hand, the customization of personal profiles would address *flexibility* increasing peoples right of choice. On the other hand, for other focus groups participants, *time efficiency* was a more important element. They did not need to spend time understanding and learning how the platforms work or if the choices they were performing were according to what expected (not over or undervalued). They would prefer having a central organization in charge of day-to-day operations, and insurance related matters, and only be contacted in case of emergency. The only feature they say they would not relinquish control, was the possibility of choosing if the vehicle stays available to others or if it is removed from the platform temporarily for private use.

People happened to prefer autonomy of platforms over control of platform features.

***S6. I believe that the regulation of drivers in an initial registration phase will drive young individuals to share their vehicles because they will have a bigger trust and security on the person who is going to use the vehicle. (VALIDATED ✓)***

To tackle the *distrust about strangers* an initial screening of users is also essential according to young individuals. It is important for renters to know the person who is using the car is trustworthy, responsible and clean so, not only is important to regulate people according to the possession of a driver's license but also about their personal characteristics. This procedure would also address *time efficiency* as owners would not need to choose who to approve or reject using their assets. It was even suggested using videos to see how a person approaches such challenges and even behaves.

According to Singh (2018) body language can express peoples' intentions and can even be more explanatory than a long conversation by showing a users' attitude.

***S7. I believe that providing keyless access to enter and drive the car will drive young individuals to share their vehicles because they do not have to wait or arrange a meeting with the user. People can just go directly to the car and drive, increasing convenience. (VALIDATED ✓)***

One big concern discussed was regarding the operational practices of personal vehicle sharing. *Convenience* was the most mentioned topic linked with the strategy of installing keyless systems for other people to use the car.

*“For much part of the day I do not have the availability to meet and deliver/receive my car keys to the users. And even if I have the availability, it would be very time consuming to do so.” (Group 7, Interviewee G2)*

As well as *availability*, *time efficiency* was also mentioned. People believed that, in certain situations, when an individual has several cars registered in the platform and/or when the trips were of very short durations, they would spend a large part of their days meeting and exchanging car keys with users.

Additionally, other topic addressed was *security* as even with an initial screening, the user is still a stranger. Part of the interviewees (4/31) felt insecure meeting with people they did not know and could potentially harm or rob them.

#### 4.2.2 Other elements of go-to-market strategies

During the focus Groups' Interviews, several concerns were discussed leading a discussion about hypothetical scenarios which would allow to overcome them. Besides the predetermined hypothesis, new strategies were suggested and debated and further analysed.

***Offer other types of transportation in the same platform:*** According to young individuals' perceptions regarding personal vehicles advantages, making sure the vehicle is available is a big benefit. By entering sharing practices, part of such availability gets reduced as their personal vehicle is used temporarily during part of the week. With the purpose of ensuring such availability, of nearby options, sharing platforms should also have available other mobility options.

Even though public transportation value for such participants may seem limited as they are used to "private travelling", they are key to ensure the viability of the organization in an initial stage. As the number of participants, and cars that are part of the fleet, at the start is low in the majority of cases, ensuring green substitute mobility options will allow to deliver value even if it is reduced.

***Green monthly offerings:*** In response to society's reduced acceptance that sharing practices have real impact in the environment, a more direct approach is needed. By registering the car on the platform to be used by others, owners could earn the right of getting offered monthly packages of plant seeds or other organic elements. Each participant could now be involved in environmental changes and engage in greener and more sustainable practices through a more direct channel.

***Professionally cleaned vehicles:*** The combination of a more polluted and untrustworthy world together with the current pandemic situation generated a discussion with wide ranges of opinions linked to *hygiene* related concerns.

*"People are becoming more isolated and more self-centred. Most would not think about the fact the car is going to be used by other people and so they would just end up not caring about what they do in there or how they leave it." (Group 1, Interviewee A1)*

With COVID-19 people also became more suspicious which leads to extra necessities. Providing professional cleaning would help mitigating hygiene concerns and would allow young individuals to protect themselves and others against such risks

### 4.3 Checklist for strategy implementation

Considering the insights provided by the focus groups participants it is possible to formulate recommendations peer-to-peer carsharing should follow if they were to enter the Portuguese market.

Creating a P2P Carsharing platform can be challenging. Having a checklist which identifies the necessary strategies which companies must include is important in order to increase their chances of success.

The below figure summarizes the required list, based on the findings and information provided by interviewees. This list of approaches was built having in mind the concerns raised by at least 80% of the participants which represent a strong majority of the population.

- |                          |                                    |
|--------------------------|------------------------------------|
| <input type="checkbox"/> | Insurance                          |
| <input type="checkbox"/> | Attractive pricing                 |
| <input type="checkbox"/> | Free parking                       |
| <input type="checkbox"/> | Cleaning Services                  |
| <input type="checkbox"/> | Regulation of Drivers              |
| <input type="checkbox"/> | More visible information           |
| <input type="checkbox"/> | Additional Means of Transportation |

*Figure 6 – List of key strategies to ensure P2P Carsharing success*

The elements of go-to-market presented are organized according their level of importance. Monetary reasons play the biggest role in motivating people to participate in P2P Carsharing practices which explains the fact cost and price related strategies are considered key for the success of sharing platforms.

**Insurance:** Platforms should offer insurance and the price would be included, for example, in the monthly subscription price. Below it is showed how Zipcar is dividing their insurance options.

Service package	Application Fee	Gasoline	Insurance	Annual/Monthly Fee	Hourly and Daily Rate
Occasional driving	\$25	Free	Free	\$60/year	\$9/hour and \$73/day
Monthly driving	\$25	Free	Free	\$6/month	\$9/hour and \$73/day
Extra value	\$25	Free	Free	Pre-pay \$50/month	8.10/hour and 65.70/day

*Table 8 - Summary of comparison among different Zipcar service plans*

*Source: Liu et al. Application of Prospect Theory on Car Sharing Product Service System, 2014, p. 354*

**Attractive Pricing:** Pricing is one major topic under discussion due to the challenging equilibrium which would allow to satisfy both demand and supply. So deeper investigation on the matter would be extremely beneficial.

**Free parking:** Platforms have the opportunity to partner with the city hall of major cities to create or transform public parking spaces into spots reserved to cars from P2P Carsharing platforms. Additionally, these spaces have to be strategically positioned in areas with lots of traffic and clearly identified in the platforms.

**Cleaning Services:** Partnerships with cleaning services or with gas stations which could provide cleaning tokens are two approaches which could ensure peoples' cars are sanitised.

**Regulation of Drivers:** An initial examination of a person's drivers' licence is essential. Also, new requirements regarding the number of years an individual has such license to decrease the probability of people being inexperienced.

**More Visible Information:** The first information showed to consumers is key to ensure their participation in sharing practices. One of the first data exhibited should be the viability, not only the price charged but also the possible profit generated if participating on the supply side. Additionally, information on the transportation modes available should also be a priority. Lastly, the platforms should have a clean and simple look and features to ensure people get to the information they want with minimal effort.

**Additional Means of Transportation:** To guarantee participants still have ways to reach their destination even if there is a lack of car options, additional means of transportation should be included in the platforms. Partnerships with bike sharing, scooter sharing and other sharing mobility alternatives could improve young individuals participation.

## **5. Conclusions and Limitations**

Little is known about motivations of suppliers regarding peer-to-peer carsharing practices and strategies which can be implemented to overcome barriers encountered. This study was aimed to understand young individuals' concerns linked to sharing their personal vehicles, a key pillar for the implementation of P2P Carsharing practices. The following chapter intends to review the answers to the research questions proposed and to explore limitations for further studies.

### **5.1 Main Findings and Conclusions**

In order to answer the following research questions, nine focus group interviews with 31 individuals were performed in order to generate an environment of discussion and thus allowing a wide variety of opinions and insights. Due to such interviews, it was possible to explore the benefits and disadvantages young people attributed to owning a private vehicle, their motivations to share or not their personal vehicles to others, and which strategies could be implemented that would allow to overcome such barriers.

#### **First Research Question: What are the perceived needs of young individuals linked to owning a private car?**

The obtained responses from the focus groups' interviews verified the information explored in the theory section. The disadvantages discussed linked to owning a private vehicle are related to *investment* and *maintenance costs, traffic, parking* and *pollution*, while the advantages mentioned relate to *mobility speed, flexibility, availability, safety, comfort, the need for private space* and *time efficiency*. Overall, these are young individual needs sharing platforms have to focus on when developing their platforms and sharing practices if they target such customer segment.

**Second Research Question: What are the motivational barriers which prevent young consumers to share their vehicles?**

Existing literature involving young individuals' acceptability in regard to sharing their personal vehicles is not very extensive, not allowing to make large comparisons to the results found. Nonetheless, it was possible to discuss the reasons behind such answers, which were aligned with the literature exposed in the second chapter.

From the interviews, it was possible to understand the negative connotations sharing practices played in interviewees minds. 29 of the 31 people interviewed *would not* share their cars with strangers. The concerns pointed by participants included *damages, emotional connection, pricing, availability, time efficiency, trust, meetings with users, information available, effort put on task* and *hygiene*.

**Research Intention: How can peer-to-peer carsharing platforms be established in the Portuguese market?**

Through the creation of statements prior to the interviews, based on theoretical literature, it was possible to check if its implementation would bring increased acceptance for young individuals to use sharing platforms. The propositions validated were related to *insurance, information available, free parking, regulation of drivers* and *keyless access*. On the other hand, *environmental statistics* and *control over features* were not validated as the environmental impact is not seen directly by participants and such control would not be time efficient, respectively.

Additionally, new strategies were proposed, explored and analysed. The need for *substitute means of transportation available in the platform*, to allow mobility in case of lack of carsharing resources, the necessity of involving users in positive direct environmental impacts through the use of *green monthly offerings* and the need for *professionally cleaned vehicles*, were three other strategies mentioned and approved by focus groups' interviewees, to ensure a higher participation of young individuals in the supply of peer-to-peer carsharing assets.

## 5.2 Contributions and Limitations

This research aims to fill an identified gap in carsharing consumer research. It provides insights regarding the acceptability and motivations of young individuals sharing their personal vehicles, together with strategies which can be implemented by P2P Carsharing platforms aimed to overcoming the barriers encountered. This study helps complementing the broadly explored topic of carsharing participants' motivations and their go-to-market strategies in a theoretical perspective.

Taking into consideration other mobility sharing practices, carsharing platforms should foster cooperation with such means of transportation. Portugal is betting in the development of a strong infrastructure of greener initiatives which allows the population to move by any mean of transportation desired (Miranda, 2019). Having multiple options in the platform would increase the flexibility of choice of users.

As for all empirical studies, it is important to understand its limitations.

Firstly, it is important to mention that only a small population was interviewed and analysed. Interviews with more participants could have generated different discussions and so reveals other insights and results. However, the interviews had into account people with different attributes to ensure a higher viability and comparability of results.

Secondly, the study was based on the theoretical attributes for young individuals. Which means, in order to ensure this is the target segment most likely to adopt carsharing practices, further studies have to be conducted regarding additional groups from different generations.

Thirdly, the study based the strategies to be verified on an already existent carsharing platform. As a result, the findings have limitations, as different platforms have different go-to-market strategies, reinforcing the need for further and wider research over strategies implemented worldwide.

Lastly, as all users were not familiarized and never used P2P Carsharing platforms which could have impacted the suggestions validated.

For future research, as carsharing is expected to grow in the next few decades, it is important to understand what personality factors are going to become relevant which leads to a necessity to a deeper study on the emotional attachment a person has with its own car. Additionally, extra research including respondents who have previous experience dealing with sharing platforms should be conducted to better explore the barriers and elements of go-to-market strategies. The

price charged is an important issue platforms struggle to define, so further work has to be performed around this topic as well as calculations of costs linked to car maintenance to better inform owners about the profit generated.

P2P Carsharing is seen as an opportunity to tackle congestion, parking, and pollution related concerns. However, it is one of the least-developed business models, with scarce literature available (Amann, 2017). That is why further research is essential in order to develop better and more efficient sustainable cities.

## 6. References

- Amann, V., 2017. *Consumer Acceptance, Barriers and Success Factors of Peer-to-Peer Carsharing in Perspective of Connected Car Services and Autonomous Vehicles*. WU Vienna University of Economic and Business.
- Aspas, R., 2019. Carsharing: 4 apps que pode usar em Portugal. Retrieved from: <https://www.doutorfinancas.pt/utilidades/carsharing-4-apps-que-pode-usar-em-portugal/>
- Ballús-Armet, I., Shaheen, S., Clonts, K., Weinzimmer, D., 2014. Peer-to-peer carsharing exploring public perception and market characteristics in San Francisco Bay area, California. *Transportation Research Record Journal of the Transportation Research Board*, 2416 (2416), 27-36.
- Barbour, N., Zhang, Y., Mannering, F., 2020. Individuals' willingness to rent their personal vehicle to others: An exploratory assessment of peer-to-peer carsharing. *Transportation Research Interdisciplinary Perspectives*, 5, 1-7.
- Beirao, G., Cabral, J., 2007. Understanding attitudes towards public transport and private car: A qualitative study. *Transport Policy*, 14 (6), 478-489.
- Belk, R., 1988. Possessions and the extended self. *Journal of Consumer Research*, 15(2), 139-168.
- Belk, R., 2007. Why not share rather than own? *The Annals of the American Academy of Political and Social Science*, 611(1), 126-140.
- Belk, R., 2010. Sharing. *Journal of Consumer Research*, 36(5), 715-734.
- Benjaafar, S., Kong, G., Li, X., Courcoubetis, C., 2018. Peer-to-peer product sharing: implications for ownership, usage and social welfare in the sharing economy. *Management Science*, 65(2), 1-73.
- Bocker, L., Meelen, A., 2017. Sharing for people, planet or profit? Analysing motivations for intended sharing economy participation. *Environmental Innovation and Societal Transitions*, 23, 28-39.
- Botsman, R., Rogers, R., 2011. *What's mine is yours*. New York: HarperCollins Publishers.

Bucher, E., Fieseler, C., Lutz, C., 2016. What's mine is yours (for a nominal fee) – Exploring the spectrum of utilitarian to altruistic motives for Internet-mediated sharing. *Computers in Human Behaviour*, 62, 316-326.

Cavaco, C., 2016. *Habitat III - Relatório Nacional Portugal*. Lisbon: Direção-Geral do Território, 17-42.

Chapman, L., 2020. Common barriers when launching a product (and how to overcome them!). Retrieved from: <https://productmarketingalliance.com/common-barriers-when-launching-a-product-and-how-to-overcome-them/>

Chen, X., Zahiri, M., Zhang, S., 2017. Understanding ridesplitting behavior of on-demand ride services: An ensemble learning approach. *Transportation Research Part C: Emerging Technologies*, 76, 51–70.

Cheng, L., Luan, X., Tang, F., Zhou, Y., 2018. Strategies of Car-Sharing Promotion in Real Market. *International Conference on Intelligent Transportation Engineering*, 3, 159-163.

Cherry, C.E., Pidgeon, N.F., 2018. Is sharing the solution? Exploring public acceptability of the sharing economy. *Journal of Cleaner Production*, 195, 939–948.

Correia, G.H.A., Jorge, D.R., Antunes, D.M., 2014. The added value of accounting for users' flexibility and information on the potential of a station-based one-way car-sharing system: An application in Lisbon, Portugal. *Journal of Intelligent Transportation Systems*, 18, 299–308.

Felix, L. Lorenc, T., Melendez-Torres, G.J., O'Mara-Eves, A., Petticrew, M., Richardson, M., Thomas, J., Thomas, S., 2016. Meta-analysis, complexity and heterogeneity: A qualitative interview study of researchers' methodological values and practices. *Systematic Reviews*, 5 (1), 1-9.

Fleury, S., Tom, A.; Jamet, E., Colas-Maheux, E., 2017. What drives corporate carsharing acceptance? A French case study. *Transportation Research Part F: Traffic Psychology and Behaviour*, 45, 218–227.

Gerwe, O., 2020. Is the sharing economy over?. *Entrepreneur & Innovation Exchange*, 1-2.

GoMore (n.d.). <https://gomore.dk/>.

Grosse-Opehoff, A., Hausler, S., Heineke, K., Moller, T., 2017. How shared mobility will change the automotive industry. Retrieved from:

<https://www.mckinsey.com/industries/automotive-and-assembly/our-insights/how-shared-mobility-will-change-the-automotive-industry>

Gurven, M., 2006. The evolution of contingent cooperation. *Current Anthropology*, 47 (1), 185-192.

Guyader, H., Piscielli, L., 2019. Business model diversification in the sharing economy: the case of GoMore. *Journal of Cleaner Production*, 215C, 1059–1069.

Hofstede Insights (n.d.). <https://www.hofstede-insights.com/country-comparison/denmark,portugal/>

Hossain, M., 2020. The effect of the Covid-19 on sharing economy activities. *Journal of Cleaner Production*, 1, 1-9.

Jittrapirom, P., Caiati, V., Feneri, A.M., Ebrahimigharehbaghi, S., 2017. Mobility as a Service: A Critical Review of Definitions, Assessments of Schemes, and Key Challenges. *Urban Planning*, 2 (2), 13-25.

John, N. A., 2013. Sharing and web 2.0: the emergence of a keyword. *New Media & Society*, 15(2), 167-182.

Kozubska, D., 2020. Go-To-Market Strategy For Startups: A Complete Guide. Retrieved from: <https://www.byteant.com/blog/go-to-market-strategy-for-startups-a-complete-guide-free-template/>

Krueger, R., Rashidi, T.H., Rose, J.M., 2016. Preferences for shared autonomous vehicles. *Transportation Research Part C: Emerging Technologies*, 69, 343–355.

Lamberton, C. P., & Rose, R. L., 2012. When is ours better than mine? a framework for understanding and altering participation in commercial sharing systems. *Journal of Marketing*, 76(4), 109-125.

Levy, J., Buonocore, J., Stackelberg, K., 2010. Evaluation of the public health impacts of traffic congestion: a health risk assessment. *Environmental Health*, 9 (65), 1-12.

Li, W. Kamargianni, M. 2018. Providing quantified evidence to policy makers for promoting bikesharing in heavily air-polluted cities: A mode choice model and policy simulation for Taiyuan-China. *Transportation Research Part A: Policy and Practice*, 111, 277–291.

- Litman, T., 2015. Evaluating Carsharing Benefits. *Transportation Research Record Journal of the Transportation Research Board*, 1702(1), 31-35.
- Liu, A., Wuest, T., Wei, W., Lu, S., 2014. Application of Prospect Theory on Car Sharing Product Service System. *Procedia CIRP*, 16, 350-355.
- Machado, C., Hue, N., Bersanetti, F., Quintanilha, J. 2018. An Overview of Shared Mobility. *Sustainability*, 10 (4342), 1-21.
- Miranda, M.I., Portugal, o país da mobilidade sustentável. Público. Retrieved from: <https://www.publico.pt/2019/06/03/p3/cronica/portugal-pais-mobilidade-sustentavel-1875185>.
- Mckensie, B., 2015. Who drives to work? Commuting by automobile in the United States: 2013. *U.S. Department of Commerce*.
- Murillo, D., Buckland, H., Val, E., 2017. When the sharing economy becomes neoliberalism on steroids: unravelling the controversies. *Technological Forecasting and Social Change*, 125, 66-76.
- Oxford Learner's Dictionaries, (n.d.). Retrieved from: <https://www.oxfordlearnersdictionaries.com/definition/english/convenient>
- PORDATA, 2019. População residente, estimativas a 31 de Dezembro: total e por sexo. Retrieved from: <https://www.pordata.pt/Municipios/Popula%C3%A7%C3%A3o+residente++estimativas+a+31+de+Dezembro+total+e+por+sexo-136>
- Prettenthaler, F.E., Steininger, K.W. 1999. From ownership to service use lifestyle: The potential of car sharing. *Ecological Economics*, 28, 443–453.
- Pwc, 2015. The Sharing economy. *Consumer Intelligence Series*, 1-30.
- Raphael, S., Berube, A., & Deakin, E., 2006. *Socioeconomic Differences in Household Automobile Ownership Rates: Implications for Evacuation Policy*. UC Berkeley: University of California Transportation Center. Retrieved from <https://escholarship.org/uc/item/7bp4n2f6>.
- Shaheen, S.A., Cohen, A.P. 2008. Growth in Worldwide Carsharing: An International Comparison. *Journal of Transportation Research Board*, 1992, 81–89.

Shaheen, S., Chan, N., Bansal, A., Cohen, A. 2015. Shared Mobility: A Sustainability and Technologies Workshop—Definitions, Industry Developments, and Early Understanding. *Transportation Sustainability Research Center*, 1-30.

Shaheen, S.; Cohen, A. 2016. Innovative Mobility Carsharing Outlook: Carsharing Market Overview, Analysis, and: Trends. *Transportation Sustainability Research Center*, 1-6.

Shaheen, S., Cohen, A., Bayen, A., 2018. *The Benefits of Carpooling—The Environmental and Economic Value of Sharing a Ride*. California: U.C. Berkeley.

Shaheen, S., Martin, E., & Bansal, A., 2018. Peer-To-Peer (P2P) Carsharing: Understanding Early Markets, Social Dynamics, and Behavioral Impacts. Retrieved from <https://escholarship.org/uc/item/7s8207tb>

Shaheen, S., Sperling, D., Wagner, C., 1999. A Short History of Carsharing in the 90's. *The Journal of World Transport Policy & Practice*, 18-40.

Signorile, P., Larosa, V., Spuru, A. 2018. Mobility as a service: A new model for sustainable mobility in tourism. *Worldwide Hospitality and Tourism Themes*, 10(3), 185–200.

Singh, V., 2018. Language and Body Language. *Govt. P. G. College, Jalesar, Etah*, 1-9.

Taylor, M., Murray, J., 2020. ‘Overwhelming and terrifying’: the rise of climate anxiety. *The Guardian*. Retrieved from: <https://www.theguardian.com/environment/2020/feb/10/overwhelming-and-terrifying-impact-of-climate-crisis-on-mental-health>

UbiGo (n.d.). <https://www.ubigo.me/en/services/car-sharing>.

United Nations Secretary-General's High-Level Advisory Group on Sustainable Transport, 2016. *Mobilizing Sustainable Transport for Development*. United Nations.

Worldometer (n.d.). <https://www.worldometers.info/world-population/population-by-country/>

Yates, T., 2020. How much Are People Making From the Sharing Economy. Retrieved from <https://www.earnest.com/blog/sharing-economy-income-data/>

## 7. Appendices

### Appendix 1 – Contact Approach

Name: João Arantes e Oliveira

Email: [jdmарantes.oliveira@gmail.com](mailto:jdmарantes.oliveira@gmail.com)

Phone number: +351 916741396

Good morning/afternoon/evening,

My name is João Oliveira, and I am currently developing my masters' thesis in Católica Lisbon School of Business and Economics on the topic of “Going-to-Market Strategies for Ridesharing services”.

Through a video call (Zoom or skype) of approximately 45 minutes I intend to better understand the barriers which make consumers refrain from participating in Peer-to-peer carsharing. In my study I look for young consumers which have never used this type of services or platforms in order to have new and unbiased opinions.

The videocall will be recorded with the purpose of further analysis and content transferring but your personal data will be kept confidential.

I appreciate you all for participating and sharing your views and, if you would like to know more about the conclusions, it would be a pleasure for me to share them with you, after the thesis submission.

The interviews are planned to happen between 07.11.2020 and 25.11.2020 so please could you please provide some feedback before the end of such timeframe.

If you have any questions, feel free to ask.

Kind Regards,

João Oliveira

## **Appendix 2 – Focus Group Interview Script**

- What is your age?
- Where is your place of residence? (Big city, Suburbs, Small city, village)
- What is your current employability status? (Employed, retired, student)
- What is your level of income? (0-500, 500-1000, 1000-2000, 2000-4000, +4000)
- What mean of transportation do you use the most?
- Do you have your own car?
  - o If yes:
    - How many cars do you have?
    - What is the average length of your most performed trip by car?
    - Why do you have your own car? What motivated you to buy a personal car?

- Have you ever heard or used a sharing platform?

*Give introduction and show GoMore apps and explain how already established solution works. (PPT presentation)*

- Would you see yourself sharing your car? Why?
  - o If yes:
    - When and in which situations would you rent out your car?
    - Do you have any concerns? Which ones?
  - o If no:
    - What are your biggest concerns?
    - What if there was a way of removing X problem? What if Y was offered?

- Is there something I have not talked about, but you would like to mention?

Trigger questions:

- Could you describe it in more detail?
- I did not understand this part in full, what do you mean?
- Can you provide an example?

### **Appendix 3 – Selected Citation from each Focus Group**

#### **Focus Group 1**

A2: *“The biggest benefit I see is the amount of time needed to reach my destination. And it is my own space, I can leave everything I want inside the car, being reasonable. However, everybody knows it is really expensive to buy a car and if you use it a lot you will spend a lot of money on fuel.” (SPEED, HAVING MY OWN PRIVATE SPACE / COST)*

A1: *“I have a garage in my building so, in my case, I just have to go down the elevator and it is always there, in the same place. Also, if I need to go somewhere and I need to change course for some reason, I can.” (FLEXIBILITY, FREEDOM, AVAILABILITY, COMFORT)*

A2: *“I would not share my car. First it is my car. Second, people would damage it or scratch it and third, I would not have any private option to move around. And even if I rent other car if it is rented by the hour or minute, I don’t have the same freedom.” (DAMAGES, TRUST, AVAILABILITY, EMOTIONAL CONNECTION)*

A3: *“One thing which worries me is not being able to leave or even forget about personal belongings in the car because the next person which uses it might steal them.” (TRUST)*

A5: *“I see Uber and public transports charging such low prices, such sharing platforms have to charge prices which can compete but also which can generate profit for us who supply the car for others to rent.” (INFORMATION AVAILABLE, REVENUE)*

A4: *“I would say that for someone which is not completely in need for extra income and would only share the car to gain some extra money, I would only check the main page and see what the platform is about, I would not search that deep into the platform. However, I think if it was on one of the first piece of information I would see, maybe I would think more openly about the topic.”*

A1: *“People are becoming more isolated and more self-centred. Most would not think about the fact the car is going to be used by other people and so they would just end up not caring about what they do in there or how they leave it.”*

A2: *“Yes, one key factor to have is to include free parking, if not, people would be paying the time they are searching for a spot which does not make sense”*

A4: *“Of course insurance is crucial and the money also but I would like to manage my own assets.”*

## Focus Group 2

B2: *“So, advantages are: going from point A to point B faster. Being right there and flexibility to move around. Disadvantages: the cost of maintenance, parking and traffic.” (SPEED AVAILABILITY, FLEXIBILITY / COST, DIFFICULTY IN PARKING, TRAFFIC)*

B3: *“Not only because of all this situation of pandemic that we are going through but usually I do not feel comfortable going somewhere, in any mean of transportation, with people I do not know. They might be sick, they might assault you, you never know what to expect.” (SAFETY, COMFORT)*

B1: *“When living or working in a big city you have to always pay attention to the time you start driving. If you drive between certain hours you will be stuck in traffic and will waste time which could be used for productive tasks.” (SPEED / TRAFFIC)*

B2: *“I would not share my car. Mainly because of insurance related issues. It is always hard to trace who was responsible and then the time one has to spend dealing with every bureaucracy involved. Also, I do not know how other people drive, if they have a lot of experience or they have just taken their drivers’ license.” (DAMAGES, EFFORT PUT ON TASK, TIME EFFICIENCY, TRUST)*

B1: *“True I would also not share my car. I would not have my car available nor would I be able to move as spontaneously as I would like. I would be losing value instead of gaining on that part. I would have to gain a lot to trade that benefit.” (AVAILABILITY)*

B4: *“It concerns me a lot if other people were driving my car. They might not feel the same responsibility and are probably going to be more reckless when it comes to taking care of the vehicle.” (TRUST, DAMAGES)*

B3: *“I agree with everything that was said, I would only add the fact that we do not know these users so in case of a meeting to deliver the keys something bad could happen.” (TRUST, MEET WITH USERS)*

B4: *“And also is it really possible to get high profits from that?” (INFORMATION AVAILABLE)*

B3: *“I mean, if the platform offered insurance to cover all the costs and, after showing the calculations, I could see it was a good value that I would earn, I cannot tell you now what that amount is because not even I know, but in that case I would probably do it.”*

B1: *“I think providing keyless access has its advantages and disadvantages. Allows a better and faster management but also, as I do not trust technology that much, brings risks for hackers or other types of frauds.”*

### Focus Group 3

C2: *“The biggest advantage I recognize in owning a car is convenience. Whenever I need to go somewhere, I know it is right here and available and also, I can reach the place where I want to go faster. This, if there is no traffic.” (AVAILABILITY, SPEED / TRAFFIC)*

C1: *“It is important for me to feel comfortable when driving, and owning a car allows me that. As it is an asset of mine, I manage it as I want and, as I feel it is my safe space, I do whatever a I feel like doing.” (COMFORT, HAVING MY OWN PRIVATE SPACE)*

C3: *“I understand there are electric and other non-polluting vehicles, but they are still very expensive or logistically inconvenient. Otherwise, you have vehicles who run on diesel or petrol which are one of the major responsible for global warming and climate change.” (POLLUTION, COST)*

C4: *“No, I would not share my car. First there is the concern about the profit. How would it really work here in Portugal? Would we have insurance against all risks? Would the car be cleaned every time it is used? Would the other drivers have to go through any background check?” (REVENUE, INFORMATION AVAILABLE, DAMAGES, HYGIENE, TRUST)*

C2: *“I share your concerns. My car is my car, it is my personal space, it is awkward if someone breached it.” (EMOTIONAL CONNECTION)*

C3: *“I agree, I also would not share my car. My main concerns are linked to damages. I am keen to keep everything I own like I just bought it. I would not like to have people ruining what I try to preserve. And with this COVID pandemic, increased precautions related to hygiene would have to be implemented.” (DAMAGES, EMOTIONAL CONNECTION, HYGIENE)*

C1: *“Everything I had in mind was already said but I want to point out that price is an important feature taking into consideration the amount of work someone has to manage.” (REVENUE, EFFORT PUT IN TASK)*

C2: *“Yes and you don't have a big part of your freedom anymore because you don't have the car anymore, even if it is just for a period of time.” (AVAILABILITY)*

C4: *“I wouldn't feel comfortable meeting with other people. You never know what to expect.”*

C3: *“I wouldn't think showing environmental figures would help that much. Maybe if the platform could offer something nature related. I would like such initiative, to bring green options to a green platform would be a great incentive.”*

## **Focus Group 4**

D3: *"I would say the advantages are linked to the speed of mobility, moving around faster, to the fact that it is available whenever I want or need and is my car and it is my car. It is set according to the way I like, I leave some things inside which in some cases help me in case of emergencies and it is safer. Disadvantages I would say its cost."* (SPEED, AVAILABILITY, HAVING MY OWN PRIVATE SPACE, SAFETY / COST)

D1: *"Time spent in traffic and looking for parking are also disadvantages."* (TRAFFIC, DIFFICULTY IN PARKING)

D3: *"If it was me, I would not share my car. I would be much more restricted when it comes to mobility. Maybe I would think more openly after seeing the how much I would earn but still. People just mess and leave everything dirty."* (AVAILABILITY, PRICING, TRUST, HYGIENE)

D1: *"No, I also would not share my car. Normally, the only thing that I would need if I had a car would be to think where my car is parked, which sometimes would be tricky, but I would not have to have additional worries about if there was a car available for me to get to my destination."* (TIME EFFICIENCY, AVAILABILITY)

D2: *"Even if I would think about sharing a car of mine, I would still have to pay for fuel, I would have to pay for any damages which cannot be traced plus wear and tear plus other expenses that might appear, is it really feasible?"* (REVENUE)

D1: *"And other people would probably crash the car. And it is my car I don't want to look at it and is all scratched or dented. People do not care about things when they are not theirs."* (DAMAGES, TRUST)

D4: *"Yes, I agree. Not only would it be more probable to start using the platform because of that detail but I also might consider sharing my car as the costs I spend on parking would reduce dramatically."*

D3: *"I would also lose a lot of time dealing with the platform probably and searching for parking, it would be a big trouble. That and having to leave my house to give the keys and then receive the keys."*

D2: *"Insurance, profit and parking for sure. They are key elements for the success of those apps. If they are possible to implement it would give a huge advantage."*

## Focus Group 5

E2: *“With my car I do not have to waste time on my smartphone looking and waiting for other possibilities like Uber or Taxi. I know where I have it and I just have to decide when to use it.” (SPEED, AVAILABILITY, FREEDOM)*

E5: *“Yes, you move quicker more freely, it is always near and we know where it is. But it whenever you need to park it is impossible here in Lisbon specially in the city centre, everything is always full or super expensive.” (SPEED, FLEXIBILITY, AVAILABILITY / DIFFICULTY IN PARKING, COST)*

E1: *“And it is much more comfortable than any other option, you do not have to be seated uncomfortably in the middle of people you do not know and also, it is safer at night.” (COMFORT, SAFETY)*

E2: *“First how much would we earn? Second, it is my car, I don't even like when my friends drive it let alone strangers. There is a bigger probability for them to damage my car than if it was me.” (REVENUE, INFORMATION AVAILABLE, EMOTIONAL CONNECTION, DAMAGES)*

E4: *“If I would share my car, I would lose a big part of the freedom I have. If I need to make a spontaneous trip, I no longer have my mean of transportation and have to search for another one. That costs time and increases the effort put on a task I could avoid by just leaving my car put.” (AVAILABILITY, INFORMATION AVAILABLE, TIME EFFICIENCY)*

E5: *“In my opinion the major problem is hygiene. We do not know where their hands have been or if they are sick or if they copy the keys or other type of fraud.” (HYGIENE, TRUST)*

E1: *“Maybe I would share my extra car but there is still so much to develop in such platforms it makes me think if I should. I would need insurance to protect me from damage responsibilities, the platform running most features so I can be relaxed during my daily routines and whenever I need to use my car I want it clean and immaculate.” (DAMAGES, HYGIENE, EFFORT PUT ON TASK)*

E3: *“I completely agree, I don't know the people who are going to drive my car. From what I know they can be just practicing their driving skills with my car and that worries me.” (TRUST, DAMAGES, EMOTIONAL CONNECTION)*

E3: *“I think driver regulation should be extensive, with several steps for the people who 'give' the car to be more assured nothing happens to it. Maybe each user would have to make a presentation video in which you could see what type of person it was.”*

## Focus Group 6

F1: *"Time is of an essence in my case. Whenever I need to go from point A to point B, I want to do it as fast as possible and if I, for some unknown reason, do not get to my destination in time, I have no one else to blame but myself."* (SPEED)

F2: *"It is always available and gives some flexibility and freedom during the trip, but it costs a lot, and it is safer."* (AVAILABILITY, FLEXIBILITY, SAFETY / COST)

F2: *"I have my car parked in my garage, for me the concern is not only the fact that it is not there, it is also the fact that it forces me to plan ahead and makes me worry I do not have any available options. But no, I would not share my car."* (AVAILABILITY, TIME EFFICIENCY, INFORMATION AVAILABLE)

F3: *"I am keen to environmental related causes and do the possible to as green as I can. However, the impact we have here in Portugal is so small that I do not feel it is worth the trouble of changing such a big part of myself."* (EFFORT PUT ON TASK)

F1: *"Just the fact people can crash the car and leave it dirty makes me abandon that idea. Even if insurance covered the costs, how long would I be left without my car? And I don't know if those practices are really feasible, how can it be profitable both for me and the company who implements it and still cover all the costs?"* (DAMAGES, HYGIENE, INFORMATION AVAILABLE, REVENUE)

F3: *"And it is our car. It is like our baby, our achievement, it is hard to see other people not appreciating it."* (EMOTIONAL CONNECTION)

F2: *"Yes but at the same time it is just an object."*

F2: *"I think offering other ways to commute would be a nice idea, partnering with a bike platform or scooter. Or even with ridesharing platforms."*

F1: *"Yes, in my case I would prefer not to have much trouble with the platform. I want people to control as much as they can without compromising my power of decision."*

F3: *"Yes I think insurance and showing those money values as a first figure would be very important."*

## Focus Group 7

G1: *"I do not know if you agree but for me is the fact I can move fast, and it is my car. Not only I know where it is, because I put it there, but also, I know it is there. But you have to pay a bit if you use it extensively and be always aware of traffic."* (SPEED, HAVING MY OWN PRIVATE SPACE / COST)

G2: *"And availability and it is more comfortable."* (AVAILABILITY, COMFORT)

G1: *"No, no, I would not share my car. Probably wouldn't be very profitable and the risk the car would be put under is very high. In my opinion, drivers in big cities are very aggressive and do not know how to drive so probably my car would be scratched and used in a very untrustworthy manner. Also, every time I would use my car again, I would waste unnecessary time putting it all as it was."* (REVENUE, INFORMATION AVAILABLE, DAMAGES, TRUST, TIME EFFICIENCY)

G2: *"Even if I have some information on the people who used the car before, I do not know what they have done on the car, if they are sick and left trace elements behind. I would have my seat, my mirrors, my radio, my whole car set my way and I would not like if people started changing and messing with it"* (INFORMATION AVAILABLE, TRUST, HYGIENE, EFFORT PUT ON TASK, TIME EFFICIENCY)

G1: *"Maybe, if you could see people like, through a video chat or something like that."*

G2: *"For much part of the day I do not have the availability to meet and deliver/receive my car keys to the users. And even if I have the availability, it would be very time consuming to do so."* (MEET WITH USERS)

G1: *"Insurance I agree and money I agree, environment not so much. I don't know what is normal or not in CO2 emissions or other types of pollutions. I recycle and try to save as much water when I shower and wash my hands. Platforms like that still use cars so the impact cannot be that extensive."*

G2: *"Yes, I would prefer to have more automatic features than having to spend the time choosing."*

## **Focus Group 8**

H1: *"You get to your destination faster, it is closer and gives more freedom than other options and it is more comfortable. On the other side, the cost, both from investment and maintenance, and the fact sometimes you are dependent on traffic."* (SPEED, FREEDOM, COMFORT / COST, TRAFFIC)

H2: *"I would add that the fact that in our generation many of us still do not have a house or space of our own and a car allows us to have that personal space."* (HAVING MY OWN PRIVATE SPACE)

H1: *"The first thing that comes to mind is obvious. I would only share my car if I had any kind of profit. But apart from that why not? It is a great way to earn some extra money."* (REVENUE)

H2: *"Yes I agree, I do not drive cars very often so if I had a car of mine parked outside and not being used, I for sure would let other people drive it"*

H1: *"However, I would pay attention to issues which would need insurance intervention and parking spaces."* (DAMAGES)

H2: *"Of course, that and hygiene, I wouldn't like to use the car if it was left dirty or full of grease or other types of substances."* (HYGIENE)

H1: *"And the car is no longer available so people would have to take other means of transportation."* (AVAILABILITY, INFORMATION AVAILABLE)

H1: *"Yes insurance, mean transportation and as little work as possible."*

H2: *"And I would not think the environmental part would work. People like to see change happening not numbers."*

## Focus Group 9

I1: *"It allows to get your destination faster and it is always there. It is comfortable. However, it is expensive."* (SPEED, COMFORT, AVAILABILITY / COST)

I2: *"Having my car allows me to drive to multiple stops in a single run without having to worry about schedules and destinations, it gives me freedom to make choices on the spot. For me the only problem with owning a car is the amount of money I would have to spend not only to get it but also in a yearly basis on petrol, inspections, revisions, parking and several other problems which can arise during the year."* (FLEXIBILITY / COST)

I1: *"No I would not share my car. It is my personal space, it is where I go when I need to relax because I know no one sits on that driver's seat besides me. I don't trust other people who would drive it not only to drive but also how they would leave the car. Maybe if the profit was high, I would think about trying to overcome such obstacle but at the moment I could not do it."* (EMOTIONAL CONNECTION, TRUST, REVENUE)

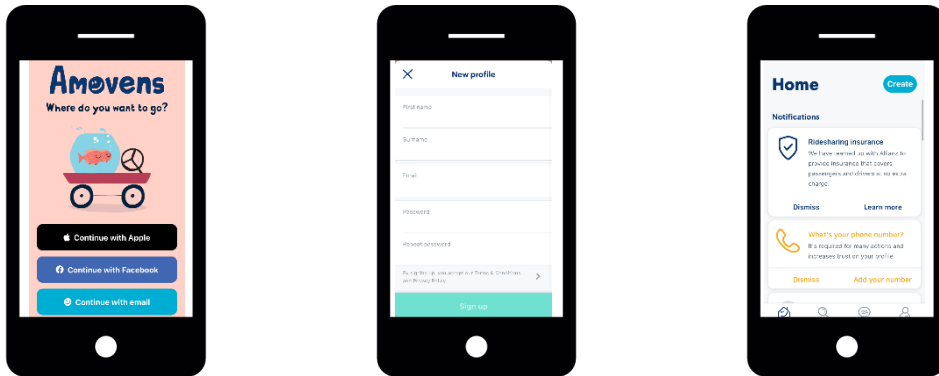
I2: *"I wouldn't share it either. It was so hard to get this car that I have, I don't want other people to use it and crash it. I am very proud of it and wouldn't change a thing because it is already how I like it and I put it on the places I think are the best to preserve the most."* (EMOTIONAL CONNECTION, DAMAGES)

I1: *"And it stops being available, if you want to go somewhere far you can't unless you pay for something else."* (AVAILABILITY, REVENUE)

I2: *"True but you could use another car in the same system, and there are so many options you could choose, you are not completely stuck."* (INFORMATION AVAILABLE)

I2: *Other mean of transportation of course and insurance yes. Also, the keyless access is a very cool idea. It saves a lot of time if it can be installed in every car.*

## Appendix 4 – GoMore Presentation



## Appendix 5 – Description of GoMore



**Company name:** GoMore

**Launch:** 2005

**Headquarters:** Copenhagen

**Employees:** 60

**Geographic operations:** Denmark, Sweden, Spain and Finland

**Integrated Functionalities:** Ridesharing, Carpooling, P2P car rental, and Car leasing

## Appendix 6 – Description of UbiGo



**Company name:** UbiGo

**Launch:** 2014

**Headquarters:** Gothenburg

**Employees:** 9

**Geographic operations:** Sweden

**Integrated Functionalities:** Public transport, car rental and car sharing, taxi and bikes.