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Mobility Demand: from Ownership to Fruition

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Mobility Demand: from Ownership to Fruition

How the Change in the Demand Has Shaped and Is Still Challenging the Last Decade Automotive Industry in Italy.

Abstract

This topic came to my mind thinking about the changes in the offers by the car manufacturer. In my opinion, the change consists of the consumer not being interested in buying a car anymore and preferring different services such as rentals or alternatives similar to leasing.

For this reason, I would like to start providing data to support this recent consumer behavior and then, discuss the possible implications linked to the companies' responses.

Car manufacturer and service providers have updated their offers portfolio adding new value proposition or rethinking the existing one. After having explained the different alternatives in this scenario, I would like to think about possible future outcomes. The core idea is based on the even more common car rental services. What are the commitments the service providers are facing? We are still experiencing an early stage where not everyone has accepted and can afford to not own a car and to pay monthly for the mobility service but, how can government and over bodies exploit this trend in the next future? What might it be the implications, especially the positive one?

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1. The Evolution of the Automotive Market in Italy in the Last Decade

The time in which cars were bought by cash and owned for literally a life appears to be far enough to think about vehicles as a different kind of good if still good can be considered. Indeed, this piece of work aims to analyse and understand how the changes in the cultural perception of the car, and of course in the habits of the final users, have affected the market and in particular the commercial actions of manufacturers.

To do so, a specific region corresponding to Italy has been analysed in the last decade in order to provide clear criteria to consider and evaluate the trend.

1.1 The Italian Cultural Scenario

Italy is a very complex nation to classify it in a unique manner. Its geography and its history have affected its culture and still, nowadays we can observe these differences among the country, especially between northern and southern Italy. Despite of this, there are some tools which enable to describe a culture. The Hofstede's 6 Dimensions Model is one of them. It helps in underling the features characterising the nation and its people. This model is adopted worldwide and has been developed by Professor Geert Hofstede (Hofstede Insight, website accessed on 6th August 2019) after several years of studies and researches and was first published in its complete version in 2010. It is strongly useful in order to identify the drivers shaping the decision of people in a country, of course, it is not specific however, it results in an effective analysis to start the argumentation.

This scheme attributes a score to 6 categories: power distance, individualism, masculinity, uncertainty avoidance, long term orientation, and indulgence. The scores place the culture on a scale that describes the general behaviour and mind of its people (Hofstede, 2011).

The data which follow have been extracted from the Hofstede Insight web site (Hofstede Insight, website accessed on 6th August 2019). According to Hofstede's results, Italy scores 50 out of 100 in the power distance index and it means on average Italians prefer equality and decentralisation of power and decision-making indeed, the power distance index measures how much the weaker members of the society are willing to accept the power is distributed unequally. Individualism dimension has to do with the perception that a member has within the society: does he or she think about herself/himself or in terms of a group? The score in this index places a culture between the two opposites individualism vs. collectivism. With a score of 76, Italy can be described as an individualistic country even if this feature is mainly notable in the rich and developed cities in the north.

In the masculinity dimension with 70 points, Italy shows more a masculine culture rather than a feminine society. This involves that people in Italy are driven by the seek for success and competition looking for achieving things and goals to show their status. On the other hand, a feminine culture cares more about the quality of life and others. The fourth dimension indicates whether a society is comfortable

Italy Hofstede's 6 Dimensions Scores

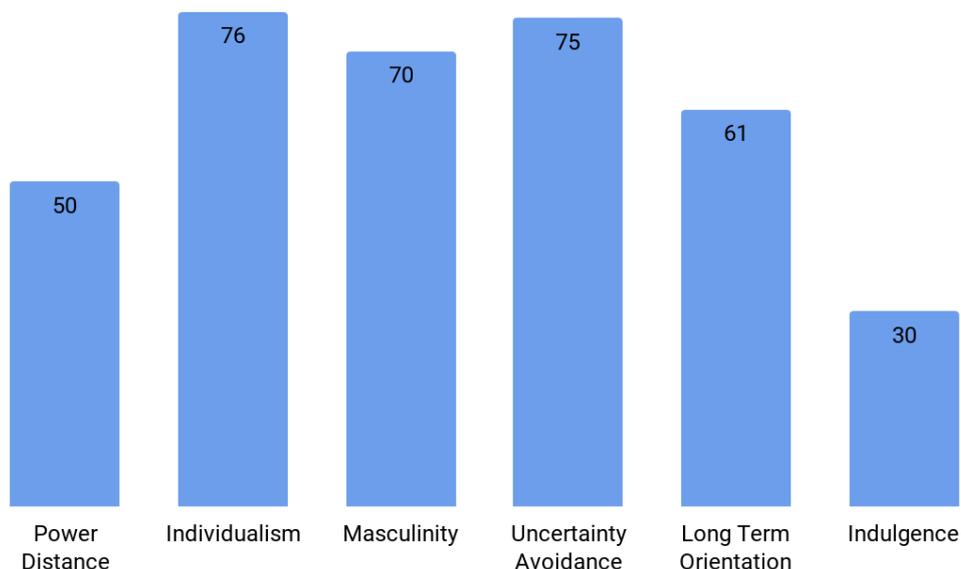


Table 1. Italy Hofstede's 6 Dimensions Scores. Hofstede Insights. (n.d.). Country Comparison - Hofstede Insights - Italy. [online] Available at: <https://www.hofstede-insights.com/country-comparison/italy/> [Accessed 7 Aug. 2019].

in ambiguous situations or not. A score of 75 highlights that Italians are not confident in ambiguity and they are frightened by uncertainty.

The long-term orientation result aims to assess whether a society remains attached to its history and traditions without thinking and preparing at the future (low long-term orientation), or, on the other hand, represented by a high score, the society's cultural approach is more pragmatic focused in savings and efforts to plan the future. Italy with a score of 61 can be considered a pragmatic society, limited long term oriented, with a strong propensity to save and invest. Finally, the sixth dimension presents the way people behave in relation to their desires and impulses. It has to do with childhood and the way children are raised. On this scale, on one side or high score, indulgent society can be observed. On the opposite, then a low score, there are restrained cultures. Italy with its low 30 is a restraint, its people strongly control their desires and impulses and have propension toward cynicism and pessimism and live with the perception that indulging themselves is somewhat wrong.

Summing up, it can be said Italy tends to have a culture oriented to efforts to build and to have to prepare the future and to face the uncertainty and the ambiguous individually or at least in small groups such as families. The threat of uncertainty is perceived as strongly negative and this make people worried about their daily choices.

1.2 The Italian Key Macroeconomics Figures Since 2009

In the last 10 years, Italy has already passed through two other recession phases: the first in 2008 was one year long, and the second in 2011 went on for a year and a half. Then now after scoring a -0,2% in the GDP growth, Italy is facing a new recession at the end of 2018. The negative index is in line with the reduction in industrial production and the fall of export, however, it is quite impossible to



Table 2. *It.tradingeconomics.com*. (2019). *Italia - Tasso di crescita del PIL*. [online] Available at: <https://it.tradingeconomics.com/italy/gdp-growth> [Accessed 8 Aug. 2019].

forecast the duration of this new negative stage (Mazziero, Lawford, and Serafini, 2019). As reported by the news, International agencies, and the Italian National Institute of Statistics (ISTAT), the Italian GDP is still negative even if around null at the end of the first semester of 2019 (Corriere Della Sera, 2019). Italy's GDP growth rate after falling to around -5,5% in 2009, turned positive in 2010 and 2011. In 2012, it became negative once again, almost -1%, always following the path of the European Union average data even if a step lower. Since 2013 on, the Italian GDP growth rate started improving until last year (Programmazioneeconomica.gov.it, 2019).

However, the most significant figure is the evolution of the average individual income in this analysis. According to the Eurostat's data, the per person income dropped on average from 28000,00 euro to 26500,00 euro between 2008 and 2009 in Italy, and then again from 2011 and 2013 to approximately 25300,00 euro keep staying far below the average per person a year European income. Currently, the year's income is slightly but constantly increasing since 2014 (Programmazioneeconomica.gov.it, 2019). Italy is still below the average European Union income pro capita but what is more relevant is the purchasing

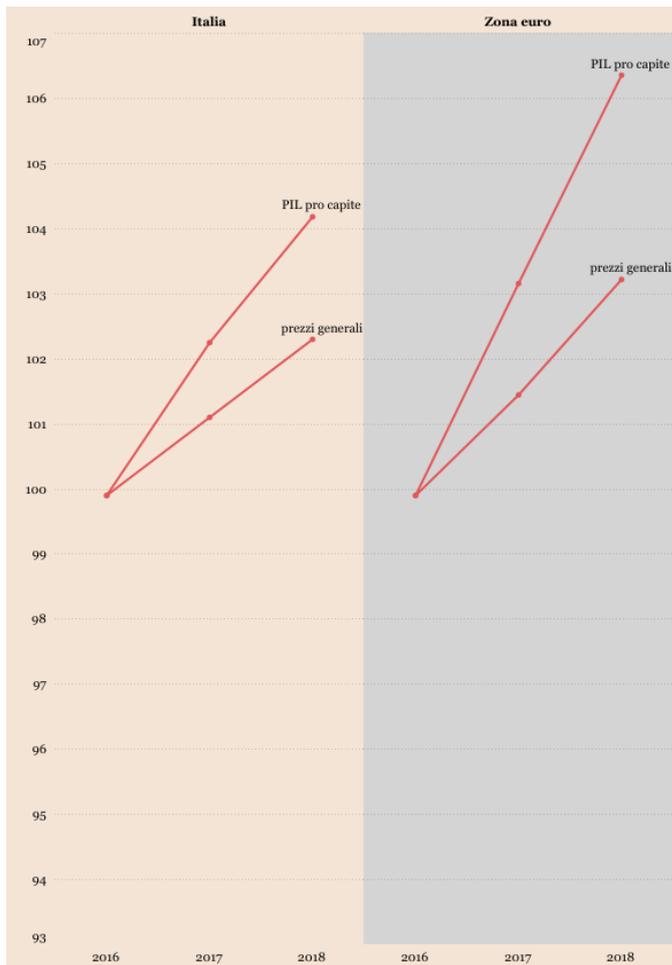


Table 3. Mancino, D. (2019). *Stipendi e prezzi: cosa è accaduto al nostro potere d'acquisto?. Il Sole 24 Ore, Economia [online]* Available at: <https://www.infodata.ilssole24ore.com/2019/06/04/cosa-e-successo-al-nostro-potere-dacquisto/> [Accessed 13 Feb. 2020]. Source: Eurostat.

power linked to the income. Indeed, it is what the income allows to buy that defines the purchasing power. Comparing the growth rate experienced by the annual income pro capita and the general prices degree, it is possible to establish if the purchasing power of a country has improved. If the growth rate of annual income or per capita GDP (depending on the terms of comparison) is greater than that of the general price level in the same time frame, then that country's purchasing power has increased. Lately, the Italian situation in terms of purchasing power has improved but is still below the European average as shown in

the table (Mancino, 2019). This brief overview was only to open the automotive market data bearing in mind the national scenario and the relevant economic and financial figures of the country.

1.3 The Italian Automotive Market Data Trend: The Last Decade

In the last decade, after the peak of 2494000 new car sales reached in 2007, the progressive deflexions have driven the automotive market towards the minimum value ever observed since 1978 of 1305000 in 2013. The following years have registered constant increases up to 1971000 new car registrations in 2017 but,

2018 turned negative again around -3,1% (UNRAE, 2019). 2019 follows the same trend of sales observed last year and at the end of December 2019 are 1.919.021 the total amount of passenger cars sold during the last year (ANSA, 2019; Dataforce.de/it, 2020).

Despite the recession that the automotive industry is experiencing in Italy, what is interesting about these figures are the changes hidden behind the superficial data and precisely how the new car plates are distributed among the different types of ownership possible. This point is the milestone of this piece of work indeed, the trend shows the enlargement of a specific market segment within the industry and it is assuming significant dimension making it earning even more relevance. This particular change may have implications for several aspects ranging from the environment to taxation. The reference is clearly to the long-term car rent, a quite new offer in Italy considering its first entrance in the Italian market in the mid-70s which has been able to earn a well-established market share nowadays (Finrent.it, 2015).

A very simple data analysis will follow in order to show the way in which the long-term rent market share is growing during the years.

According to the data shown in the most significant reports of the industry, it is clear the steady growth experienced by the long-term rent market segment despite the total sales rate. The following data are all freely available on the annual reports published by UNRAE and ANIASA, two Italian bodies which analyse the automotive market under different perspectives. The UNRAE – literally the Italian national association of the foreign car manufacturers delegates – has the duty to analyse the market bearing in mind the distinction between the Italian brands and the foreign brands (Unrae.it, 2019). In doing so, their annual reports are well developed since they provide a clear overall picture of the market. The ANIASA – national association of the car rentals and car services industry – is mainly focused on monitoring the industry's segment more relevant in this work concerning the role played by car rental in the automotive market (ANIASA, 2019).

The table presents the cars registrations growth year by year and the car rentals' new cars registrations growth in order to make clear the trend.

	New Cars	Rent
2009	-0,13 %	-26,87 %
2010	-9,16 %	-3,72 %
2011	-10,83 %	+21,66 %
2012	-19,79 %	-2,23 %
2013	-7,02 %	-7,88 %
2014	+4,29 %	+21,43 %
2015	+15,81 %	+19,81 %
2016	+15,87 %	+14,81 %
2017	+7,96 %	+18,82 %
2018	-2,97 %	-0,02 %
2019	+0.34 %	+8,99 %

Table 4. New car registrations growth per year and car rentals' new car registrations growth per year. Figures elaborated by the author, original source annual reports by UNRAE and ANIASA. Years 2017, 2018, and 2019 data source Dataforce.de/it/.

In 2010, 1.961.561 cars were sold in Italy as displayed by the annual report “L’AUTO 2018” edited by UNRAE (UNRAE, 2019). It was almost 10% less compared to the previous year but the cars bought by the rent were decreasing only by 3,72 % (UNRAE, 2019). A first signal signing the time in which something in the automotive market was changing. Indeed, since 2010, every year except for 2013, the car rentals market share has been more positive or at least has experienced a less negative recession, than the trend of the market itself (UNRAE, 2019). After the negative period that led toward the worst result in the last thirty years, since 2014, the increase is clear and indubitable (UNRAE, 2019). In 2014, the Italian automotive market was increasing by 4,29% however the long-term rent segment affected it by +21,43% (UNRAE, 2019). 2015 was a positive year on average with a +15,81% for the market in its whole and almost a +20% in the rentals share (UNRAE, 2019). The following year saw the automotive market increase all at the same pace in Italy: around +15% (UNRAE, 2019). As set before, 2017 represents a new turning point, the market experienced a slowdown and while the entire market was growing only by 6,79%, the rentals

share still earned a huge 17,39% (UNRAE, 2019). 2018 turned negative for the automotive even if the car rentals were a little (+1,36%) positive (UNRAE, 2019). According to the figures monthly edited by Dataforce – a German company operating in the consultancy for the automotive market worldwide (Dataforce, website accessed on 13th November 2019), 2017 signed the route. The first two months in 2017 saw the balance among the automotive market shares redesigned. Considering the total amount of new car registrations and the sale solutions possible as the channels of the market, the new trajectory followed by the sales trend is marked. The private channel was reducing its market share by 4%, the companies owned fleet were declining too, however, the total amount of new cars registrations was performing better than 2016 and the same was scored by the long-term car rentals companies (both considering passengers cars and light commercial vehicles up to 3,5 t) (Dataforce, 2017). The 2017's first quarter ended following the positive path just described: the market shares of the privately owned and of the companies owned fleet was decreasing despite the long-term rent market share which was earning points (Dataforce, 2017).

At the halfway of 2017, the market situation was the same: an overall positive wave experienced by the Italian automotive market but different conditions among the market channels. The private and companies' fleets channel was still decreasing in favour of long-term rentals (Dataforce, 2017). This year finished with a positive balance compared to the previous one, with the trend observed during the month confirmed at the end. If this was true in the passenger cars, not the same can be affirmed in the light commercial vehicles (Dataforce, 2017). While the rental segment for light commercial vehicles was performing well in June 2017, it registered a negative core of -1% at the of the same year in line with the overall result of this market but losing market share to the private channel. Nevertheless, the companies owned fleets – leasing solutions included – were reducing, even in the LCV segment (Dataforce, 2017).

2018 started the first quarter showing some issues compared to the previous year. The whole automotive market was suffering bad times. The private new car registrations were downgrading, following the trend of 2017. After a quite positive start, the companies' fleet was decreasing as well in their amount (Dataforce, 2018). Despite this news, long-term car rental firms were experiencing steady and excellent growth (Dataforce, 2018). After six months into 2018, the situation

was unchanged: the total amount of new cars and LCVs registrations was declining as well as the private and the companies owned vehicles, however, a positive score was signed by the long-term rent solution (Dataforce, 2018). The automotive market followed the same path observed during the first semester even during the third trimester (Dataforce, 2018). However, in the last quarter of 2018, a sudden slowdown affected the market worsening further the scores. Not only the private and the companies owned channels but also the long-term rent experienced a bad stage this time (Dataforce, 2019).

2019 starts on the same wave where it was the last trimester of 2018. The whole market is almost stable, but the private share is recovering after the losses of the past two years. On the other hand, the amount of new car registrations assignable to the long-term rent is losing points, at least during the entire first semester, with the only positive side represented by the light commercial vehicles (Dataforce, 2019). After the first four months, in May and June 2019, the passenger cars new registrations scored by the long-term rent companies improved the numbers coming from the first trimester 2019. Despite the different trend compared to the one observed in 2018, the annual amount of car registrations for the rental companies was almost the same as the previous year: 161322 in 2019 the first six months and 161921 in the same period of 2018 (Dataforce, 2019). In July 2019, the Italian automotive market remained stable with very little variations in the market composition (Dataforce, 2019). The following month, the negative trend came back as during the first quarter of the year. The passenger car registration claimed by long-term rental brands lost around 24% compared to August 2018 and the progressive number of new cars bought by rental companies at this time in 2019 was decreasing compared to the same period of 2018 (Dataforce, 2019). In the months of September and October, the automotive market reacts and recovers the trend signed until that time. At the end of September 2019, the light vehicles and passenger cars market signed just a -0,96% compared to the first 9 months in 2018 (Dataforce, 2019). October confirms the positive trend of September 2019, especially in the long-term rent segment. The improvement in the number of car registrations scored by rentals in these two months - both around +30%, helped the segment to turn positive the annual number (Dataforce, 2019). The last two months of the year contributed to the final number of 1.919.021 new car registrations by signing a new and final

increase in the long-term rental market share that saw a +8,99% in the registrations of the segment compared to the previous year (Dataforce, 2020).

Box 1 – The International Scenario

In order to compare the Italian automotive market, the market's trends observed in different countries will be presented. USA, the UK, and Japan have been selected. As reported in the chapter, these drivers' behaviour is shaped according to the culture in which they live and of course the economic scenario of the country. Mainly in this Box, the trends observed in the different countries will be analysed considering the cultural features but not the singular country's situation.

In the US, it is a matter of culture: the US mentality makes people think it is easier to jump into a car and drive. With this purpose, ownership still is the preferred solution chosen by Americans to drive. In addition, the US is the nation that is driving a lot more than other countries and the most sold vehicles are SUVs and pick-ups due to the cheap gas price and the behaviours indeed, these vehicles are part of the American identity. Currently even if the investments in alternative mobility trends are huge, the market is slow to change due to also the governance and ownership of infrastructures divided in three levels: federal, state, and local (Brown, 2019).

The UK presents a different situation. The appeal of car ownership is decreasing. The shared mobility and public transportation are used more intensively in comparison to other countries, especially in urban areas where they are well organised and developed. Advanced technologies such as autonomous drive may further increase the adoption of sharing economy alternatives (Government Office for Science, 2019). The emerging market trends show indeed how younger people are oriented toward a demand for services rather than inefficient and expensive ownership (CoMoUK, 2020).

Japanese people especially young are pushed toward public transportation and shared alternatives. This is due to the lessons taught them from the deflation and financial insecurity experienced in the past two decades. People think they cannot afford to own a car and the car appeal has decreased, this phenomenon is called *Kuruma Banare* (Lewis, 2016).

1.4 Introduction Analysis Evaluation

In this first chapter, the parameters affecting the automotive market have been outlined to figure out the dynamics and the reasons for such changes occurring in the industry. In detail, it has been highlighted the relevant role plays by the long-term rental segment in driving the entire automotive market.

According to a news published by *La Repubblica*, the trend observed in the Italian automotive market in the last decade - but in deep in the last three years – is the result of the current situation of the country. Economics uncertainty, political instability, and new law designs concerning mobility have strongly affected the whole market and the consumers' perceptions. These are the reasons why this first chapter is focused on the general situation of Italy (la Repubblica, 2019). The article refers to the fast and unrelated changes at the government lead and to the uncertain economic scenario as causes pushing consumers toward new value propositions. A fixed price per month and services all-inclusive have been considered a solution to face the uncertainty. Nevertheless, the news about some new laws concerning limitations in mobility and in detail the penalisation on the diesel engines have pushed the owner which could not afford the purchase of a new car to these commercial solutions.

The same concept has been highlighted by different players in the industry. An important consultancy operating in the automotive industry, Quintegia – the Chairman is Mr. Buzzavo Leonardo professor at University Ca' Foscari of Venice – pinpointed the evolution of the market trend more than one year ago, by conducting an analysis the “*Automotive Customer Study*” with the aim to assess the industry's consumer behaviour which are moving as reported toward alternative solutions compared to the straight ownership (Quintegia, 2018). Among the main drivers leading the growing interest toward these alternative approaches are listed the comfort provided by a full service for a monthly fixed price and then a user-friendly consuming process, but also the flexibility and the option to replace the car easily without the issue of selling the old one. On the other hand, someone is still sceptical because of the newness of this kind of offer and due to the poor understanding of the long-term rent functioning in addition to cultural issues such as the symbolic meaning linked to a good like a car. Indeed, using the model developed by Hofstede as explained early on, the Italian culture

with two high scores in the masculinity and the individualism indexes shows high attention for status symbol and then a preference for direct ownership instead of alternative solutions. But something is changing, and the new generation are more open-minded and open to the change, especially the most educated people (PwC, 2017).

What just reported testify once again that in the last three to two years the market has started a clear way. Another source reports the same findings published by Quintegia as results collected by ANIASA. In addition to the previous one, this market research explains as this trend would be a direct effect of the economic crisis which has reduced the private purchasing power and the growth of the sharing economy applied to different industries. In the current uncertain scenario, consumers prefer a comfy flexible service with a fixed price and a low risk. Then, the research provides even a long-term rent target persona: the service user is on average younger, more educated, wealthier, and who pays more attention to the environment than the private owner (Montrella, 2018).

Considering the evolution of the market shares within the industry and the figures presented above, it can be said that what forecasted one to two years ago by different agents happened during the last 18 months. The automotive market focus is definitely moving from the goods to the services and this change will be the core topic of this work.

2. Goods Transforming into Services: Implications and Expectations

As described in the first chapter, a new market trend is acquiring even more relevance, growing in number and awareness. After having presented the figures testifying this evolution and the main causes driving the trend, the processes and solutions shaping this way will be analysed in the current chapter.

In the end, some implications are listed and explained to highlight first of all the pros linked to these value propositions.

A brief literature review about servitization is presented then, the linkages of this theme with the automotive market are explained. In conclusion, there is a consideration explaining the reasons why the solutions emerging might contribute to fixing some general issues in Italy as well as worldwide.

2.1 Servitization. Re-thinking the value proposition

The practice of adding services to the products sold to customers is a must among the manufacturers in different industries nowadays. In 1988, Vandermerwe and Rada coined the term servitization which is currently widely recognised as the practice of creating value by adding services to products. Their work edited in 1988 and published in the *European Management Journal* in the same year, represents the starting point of this topic in the academic literature (Vandermerwe and Rada, 1988). The authors termed the new feature of total market strategy “servitization of business” after observing the trend of the best corporations worldwide adding services to their offerings which were assuming the shape of packages, solutions, and/or bundles as the combinations of products, support, services, and knowledge. Yet in 1988, they referred to services as the major driver affecting the competitive scenario and they stated services were dominating the world economies. The additional value for products was already playing a core issue in the managers’ duties and a key role in customer

satisfaction and fidelity. Vandermerwe and Rada presented the servitization trend in a very interesting way by reducing the evolution process into three stages (Vandermerwe and Rada, 1988). The first stage or starting point where companies were confident stating their field of action: goods or services. The second one corresponds to the combination of both goods and services, when most companies found essential – quite mandatory, feed their products with at least the basics services (Vandermerwe and Rada, 1988). The same was for service providers which started to implement their value propositions with goods useful to deliver their business. The third and different stage explained by the authors in their work of 1988 consists of the more complex and complete combination of goods, services, support, knowledge, and self-service which compose a bundle where both manufacturers and service providers are focusing. This is a key concept to keep in mind going deeper in the analysis of the automotive market: servitization, it is not only a trend affecting manufacturers and the goods market but also service providers even if in a different manner (Vandermerwe and Rada, 1988).

However, the stronger assumptions made by the authors is “*servitization is largely being driven by customers*” (Vandermerwe and Rada, 1988, p. 318) indeed, it is a process born mainly to assess specific consumers’ requests both because manufacturers and providers wanted to retain their customers pool and gain their satisfaction/loyalty, and because the grown clients’ requests opened up new market space where not only a specific set of firms was equipped or addressed to compete. Due to servitization, companies are integrating down their supply chain directly and setting up partnerships and networks with suppliers to stay even closer to clients in order to understand their needs and exploit these new competitive spaces coming out.

The competitive arena sees its boundaries enlarging and the competition within it increasing. Industries are not well defined anymore and anyone in the value chain can become a competitor. Customers were becoming more critical and difficult to please thanks to the high and easy availability of information, pretending to fully use what they have bought, when and where they want, and to cope if something goes wrong. These considerations added to what has been explained in the first chapter about the economic situation and the cultural

preferences in Italy prove the increased bargaining power exerted by customers and the changing trend.

This servitization trend has assumed different forms during the years but the one that is most suitable in the automotive industry to categorise the solutions provided by the market's players is the Products-Services System or PSS (Baines, Lightfoot, Evans, Neely, Greenough, Peppard, Roy, Shehab, Braganza, Tiwari and Alcock, et al., 2007).

Many were the academics who dealt with the topic which is a young one. The literature evidence about it started in early 2000 when Goedkoop et al. published a paper to analyse the economic and ecological qualities of a complex value proposition composed both by a material element and services (Goedkoop, Van Halen, Te Riele and Rommens, 1999). They called their research's content the Product Service system to share their idea of something different from products and services for themselves and to introduce innovation. In this work, the PS system represents a "*marketable set of products and services capable of jointly fulfilling a user's need*" (Goedkoop, Van Halen, Te Riele and Rommens, 1999). It represents the milestone in the academic literature concerning servitization and in specific, this particular type of offering embedding products and services. However, considering that 20 years have passed, more studies have been completed and the work by Baines et al. (2007) integrates a full literature review on the concept providing a well-organised summary. What is key and stated clear is that the focus shifts from the sale of product to the so-called "sale of use", including the shift in the responsibilities lead: the consumer pays to use the asset not to own it so the ownership is retained by the producer/provider who is also responsible for it (Baines et al., 2007, p.1543). The last point is central in the discussion occurring in this work and will be refreshed later on.

Considering the automotive market and the changing happening to the offerings in the industry it is clear how manufacturers and services providers have implemented the alternatives to the basic sale of products in favour of solutions that do not require the transfer of the ownership. It is true in the cases of car-sharing, long-term car rentals, new financial solutions alternative to loans and leasing which provide the driver the chance to pay a monthly price and after a fixed term the choice of keeping the car, return it, or get a new one. These options are well spread in the market and are promoted by almost every car manufacturer

in the developed country. Now, a brief presentation about the value propositions alternative on the market will follow (Box 1).

As reported in the first section, the economic and social conditions characterizing the last decade in Italy have made the customers' needs change. A privately-owned car seems to not represent a status symbol anymore and this cause combined with a not so prosperous economic situation has made room for alternative players and offers. Many are the works treating the topic and adopting different lens however, the works by Fournier are the most valuable considering the significant perspective of his paper. As introduced in the current piece of work, the authors explained in his script how the automotive market is shaping the mobility paradigm and what is most important, he showed the main reasons and drivers which are still pushing and challenging the incumbents and the newcomers of the industry. Fournier et al. (2012) developed a smart figure in the attempt to make everyone understand the drivers occurring worldwide in the automotive industry (Fournier, Hinderer, Schmid, Seign and Baumann, 2012).

The framework, dated back to 2012, shows the drivers affecting the mobility paradigm not involved in technological aspects on the left-hand side. In the middle, the viewer can identify the reasoning and the logic behind the changes occurring. It is generic and can be tailored to every region and need.

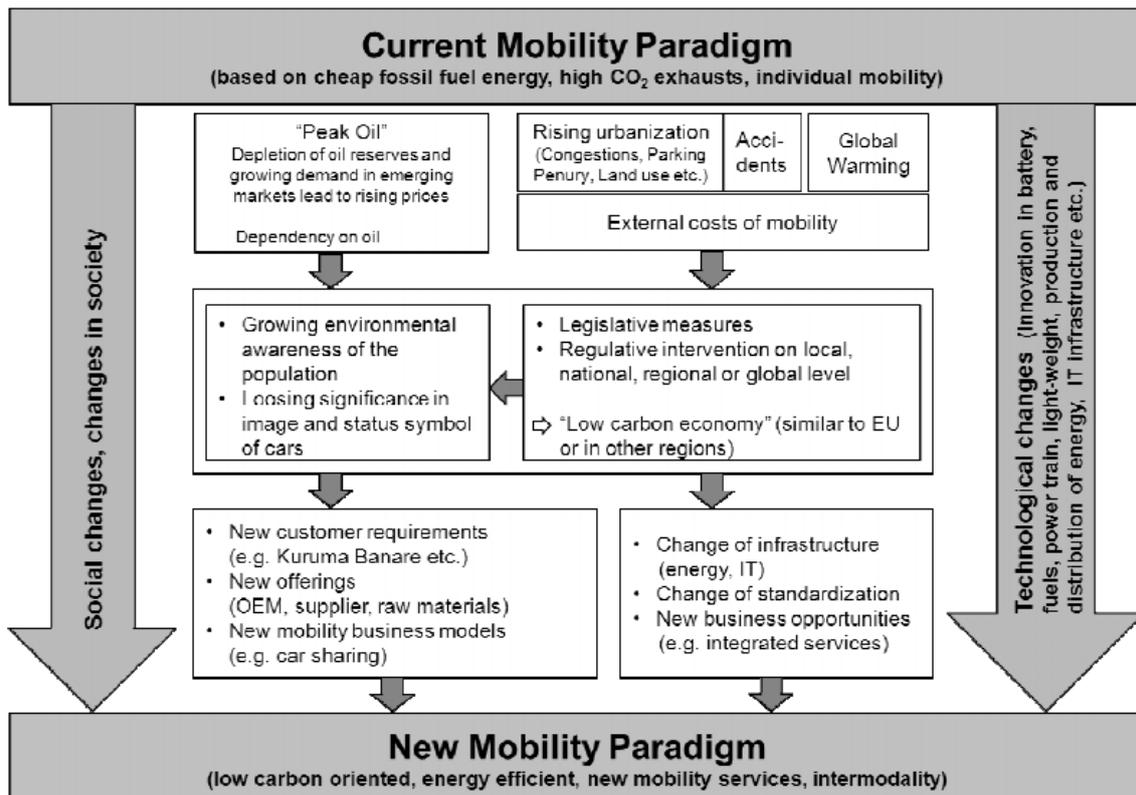


Figure 1. Drivers of the new mobility paradigm. Fournier, G., Hinderer, H., Schmid, D., Seign, R. and Baumann, M., 2012. *The new mobility paradigm: Transformation of value chain and business models. Enterprise and Work Innovation Studies*, 8, p.12.

In Italy, social changes can be seen as a reduction in the purchasing power following the financial crisis and the hard recovery combined with losing interest in cars as a status symbol and cultural effect such as a growing environmental awareness. Indeed, changes in customer requirements imply new market opportunities in future mobility. This may include a decreased interest in cars by young people as testified in the phenomenon called “*Kuruma Banare*” – literally demotorization or attitude towards mobility without personally owning a motor – occurred in Japan at the end of the twentieth century (Fournier, Hinderer, Schmid, Seign and Baumann, 2012). On the other hand, the growing pressure upon the ecological externalities linked to mobility is forcing not only the OEMs and the players of the industry to develop new cleaner and more efficient technologies and alternative solutions but also the regulatory bodies to enforce new restrictions at different level from international to local, heavily affecting the drivers’ choice and then the consumers behaviour. Technology, environmental awareness, political and legal influences, and socio-cultural changes are shaping

the future even if not so far mobility paradigm, able to provide need-driven (not ownership-oriented) individual mobility services producing the lowest emissions possible (Fournier, Hinderer, Schmid, Seign and Baumann, 2012).

In more recent work, Prof. Fournier (2016) highlighted two different scenarios based on the German experience. The first scenario – the one that can currently be observed in Italy – follows a good-dominant logic in which customers still prefer to own or at least to dispose of a private car and the added value through mobility services is limited and mainly controlled by car manufacturers which become service focused manufacturers (Fournier and Donada, 2016).

The second one adopts a service-dominant logic with a decreased role of the privately-owned car and the sharing concepts and the pay-per-use modes rising. This approach still seems to be too far from the Italian automotive market situation even considering the different pace characterizing the shift processes in the country. Likely, the more intermodal mobility services affecting the second trend are expected to disrupt the whole industry changing the value distribution and the value took on by the different players in the market where newcomers may acquire an advantage on the incumbents (Fournier and Donada, 2016). Many are the different contributions agreeing, manufacturers and suppliers are already competing to gain very few margins while investing a huge amount of resources in what customers are now looking for. This issue hides a double topic indeed, car manufacturers have to go on developing their production processes and implementing their product but they also have to adapt – when a whole innovation is not required – their business model in order to face the sinking profits remaining from sales and to build up a position that may allow them to stay in the competitive arena in the future too. The industry value chain is growing in complexity and does not end only with production and sale anymore, it consists of the management of the car as the product all the ways and status in its lifecycle through its recycling (PwC, 2017). Once again comes the issue linked to the responsibility for the management and maintenance of the fleet.

Box 2 – What is the market offering?

Currently, the automotive market is offering four main formula to dispose privately of a car in Italy. These four types of purchase have been identified by looking at the website of the three major automotive group in the Italian market according to the statistics elaborated by Dataforce (Dataforce, 2019) – Fiat group, PSA group, and Volkswagen group (Fiat Italia, 2020; Peugeot.it, 2020; Volkswagen.it, 2020). The first and the simplest one is the purchase consisting in a very short transaction following the straight line drawn by the pipeline business, with the final customer becoming the good's owner and ending the value exchange. The second consists of adding the easiest financial service allowing the customer to buy the car and pay it monthly, such as a loan. Going deeper with the financial solution included in the transaction, then there is the leasing. The financial leasing contract allows the driver to dispose of the car by paying a monthly fee and then at the term the customer can chose to pay the final price and redeem the car or to return it. In this kind of agreement, the maintenance costs and all the paper duties are up to the client. This financial solution gained success again during the last few years. Every single car manufacturer added it in its offers portfolio even adding a final option. Indeed, the driver at the end of the term can chose if redeem, return, or change the car with a new one. Every car manufacturer has developed a set of services ranging from warranty extension to a full-service program which can be added in the purchase deal. The fourth proposition is the most complex one and the subject of this paper. The so-called hire contract that consist in a long-term car rent is a more articulated solution compared to the previous. By paying a price monthly, the user gets a 360° service including all the costs linked to a car disposal, but the customer has never the option to become the owner of the good.

2.2 Platform vs. Manufacturer

The previous paragraph highlighted how important became the services and the customer needs in the automotive market offerings. However, this has then impacted the companies competing in the market by requiring innovative approaches in their business models and challenging their comfort zone.

According to very interesting news published by the Harvard Business Review, the scenario experiencing by the automotive industry and the challenges it is facing seem to suggest the winning strategy may be the platform one (Van Alstyne, Parker, and Choudary, 2016).

The original strategy adopted by the car manufacturers can be seen as the so-called pipeline strategy where inputs become products or services ready to market after a linear process of stages defined as the value chain (Van Alstyne, Parker, and Choudary, 2016). Currently, as widely discussed above, the automotive market is shifting from a “classic” pipeline strategy at which in the years different services have been attached but where the most of the value chain was controlled by the OEMs and the transaction with customers ended with the sale, toward a more complex business model assuming the features of the platform strategy. In this innovative approach, it is the demand side to lead the business and to shape the market, and what is most important the customers' pool creates value for other customers and the market on its whole. It is exactly what happens in the platform strategy through the network effect.

The platform businesses link together and somehow keep together producers/suppliers and clients providing room for efficient exchange of value, thanks for instance to the establishment of switching costs (Van Alstyne and Parker, 2017). Considering the perspectives about the future analysed above (later again) and the kind of services appreciated and required by customers, the platform strategy seems to embrace the needs of the market.

From what emerges from the previous considerations, the Italian automotive market is facing a gradual shift toward the disruptive innovative concept of servitized market already existing or at least more advanced in other countries. Indeed, this change is lighter compared to one happening for example in the US or the UK, this is because of the cultural scenario and the consumer behaviour characterizing the market. According to the distinction made by Fourier (2016), it

can be said Italy is still following a good-dominant logic in where due for example to the masculinity cultural feature, the users prefer to own or at least to dispose of a private car and the players in the market are manufacturers and few more like financial institutions which enrich their value propositions adding services and trying to tailor the offerings on the specific needs and behaviour of the customers (Fournier and Donada, 2016). Italy still is a step back compared to other realities due to its geography, its demography, its culture, and its history too.

The persona identified as the perfect user in the most disruptive scenario characterised by shared and autonomous concept is a young technically savvy urban person (PwC, 2017). By contrast, Italian population signs one of the oldest age on average compared to the other developed countries and the demographic and geographic differences within its boundaries does not help to make Italy the proper field for the spread of the disruptive new shared connected electrified autonomous automotive value propositions as is the one described in the Fournier's second scenario (Statista, 2019; Fournier and Donada, 2016).

Anyway, the servitization process occurring in the automotive market brings to the platform because to work properly and to enhance the value exchange, it needs a network in which providers, customers, and of course manufacturers take advantage of each other from the continuous interactions between the players within the scenario. Moreover, a platform provides the right base for an evolving industry: the platform ecosystem makes the market adoption of product innovation and complementors addition easier, representing in these turbulent times the suitable solution to drive the automotive industry through these impacting changes (Scholten, S. and Scholten, U., 2012).

Even long-term car rent is a platform. Indeed, whoever is the service provider in the rental market, it is nothing more than a director managing the transactions among the players within the environment.

The platform business model or strategy relies on the basic concept of bringing together the different groups of players taking part in the industry (Srnicek, 2017; Van Alstyne, Parker and Choudary, 2016). Every platform ecosystem is composed of the group of providers which in the case of the automotive car rentals are both the car manufacturers and the service providers in general, then the users, and then eventually the platform "owner" which might also be part of the first group. Declining these actors on the target market there are the car

manufacturers as they sell the autos to the car rental, the network of garage, repair shops, body shops, and so on represents the needed and complementary set of services essential for clients in a full disposal of the goods and for the platform director to manage the maintenance of the goods. Then, the clients become users, in fact, they do not own the cars, they are paying a periodic fee to dispose of the good. The rentals managing the network of complementors, conducting the transactions with the car manufacturers are able to offer a full value proposition tailored to the needs and requests of every single user so, they as platform owners.

The network of producers and consumers represents the main assets in a platform business and in the case of a car rental business, it is the combination of the users/drivers and the complementors' suppliers in addition to the car manufacturers which provide the vehicles (Van Alstyne and Parker, 2017). However, for specific and clear reasons, this network cannot be managed as a unique one. These businesses managing three different groups of players are on the lead of what is called the multi-sided platform. The multi-sided platforms are characterised by the presence of more than two groups of players interacting through it (Boudreau and Hagiu, 2009). The monthly price collects by the car rent corresponds to the rewarding for the resources' management and first of all the paper duties linked to the management of a tricky good like cars. It is exactly the dynamic capability consisting of orchestrating the key resources and networks that makes the platform's owners gain advantage and then profits coming from the continuous interactions occurring (Srnicsek, 2017).

The complexity laying behind the management of such a good and the orchestration of the whole networks and the interactions among them make this mobility solution as a perfect example for the platform business theory. Indeed, this business cannot be described as pipeline as far as not all the stages in the value chains are controlled by the same player but even more, not every transaction corresponds to a money exchange or a single price: the platform owner – the car rental firm in the case – collect the total income and then allocates the relative value to each group.

2.3 Supply Chain Implications

In the previous paragraph, some considerations have been listed explaining the form assuming by the new mobility solutions businesses. Now, based on generic reflections and implicit logic, the bridge driving to the platform strategy solution will be rough out.

According to the evolutionary path followed by the firms in the automotive industry, the different value chain forms assumed will be described from a historical perspective.

The first car was built back in 1886 by Carl Benz and Gottlieb Daimler two German engineers (Parissien, 2013). However, up to the innovative improvement brought up by Henry Ford, the first automotive industry was purely handcrafted with the few producers ruling out all the operations included in the easy and short supply chain and just seeking for the raw materials. That is the main reason why the American Henry Ford is worldwide recognised as the lord of the car in fact, he revolutionised the industry by conducting it to mass production (Bailey, De Ruyter, Michie and Tyler 2010; Womack, Jones and Roos, 1990). During the first two decades of the 20th century, he diffused the concept of mass production not only due to the continuous assembly line as many believe but thanks to his intuition to design the car as a set/combination of modular components perfectly matching and easy to attach each other (Womack, Jones and Roos, 1990). The revolution spread by the American entrepreneur set the stage or the modularity concept. It was exactly the design of the components and their easy-to-attached the features that made possible the mass-production in the car industry and to this extent, the Fordism – as is called this approach – looked forward to achieving a full vertical integration that could assure the right time delivery, design and production of the components for the assembly-line (Womack, Jones and Roos, 1990). The American brand reached the goal to realise a car from the raw materials to the final elements entirely in-house only during the 30s in the new plant in Detroit (Womack, Jones and Roos, 1990).

With the process and product innovation brought by Ford, he success in keep the price affordable for a larger group of people. The emergence of a mass-market made other and new issues arose: the demand increased globally and at the time was not so easy and economically advantageous to ship ended cars, not to

mention the differences in the local preferences and needs which caused and forced the firm to open several assembly-line locally. These were only two examples of the problems faced by the mass-production system fully vertical integrated just born (Womack, Jones and Roos, 1990).

Meanwhile, another concept was growing in the US during the same ages: group of small manufacturers was working together to build a group of specialised plants which could differentiate the product and specialise on the components productions, somehow setting the base for the more recent forms of collaboration developed in the industry (Parissien, 2013). Going on the timeline, when the American mass-production model was well established, Japan contributed with the Toyota experience that contrasted the Ford's assembly-line perfectly vertical integrated and not paying attention to the waste production, both in terms of money (raw materials and workers' efforts) and time, with the re-nowned lean thinking model (Womack, Jones and Roos, 1990; Womack and Jones, 1996; Mi Dahlgaard-Park and Dahlgaard 2006).

What emerges from the brief historical analysis on the automotive industry value chain evolution, is that the focus remained on the production to market during the vast majority of the twentieth century: cars became slowly but steadily a commodity worldwide during around the first sixty years of the century and in these early stages of their market penetration.

Then as mentioned, the efforts and improvements the car manufacturers were looking for were focused on gaining control of the whole value chain and achieve big production capacity.

The last two decades in the industry saw a shift toward a new era defined as the post-Fordism period characterised by a flexible specialisation, niche production, and services which allow the big western plants to give space to smaller-scale facilities and service provisions while in the less developed countries started the industrialisation stage leading then at the outsourcing process (Bailey, De Ruyter, Michie and Tyler, 2010). In this new scenario, the typical producers-driven industry has seen the first-tier suppliers growing in relevance and playing an even more significant role (Bailey, De Ruyter, Michie and Tyler, 2010; Doran, 2004; Doran, Hill, Hwang, Jacob and Operations Research Group, 2007). Thanks to modularity and the specialisation of specific first-tier supplier, nevertheless the emergence of long term collaborations among the brands operating in the

industry, the assembly-line and the plants are in general shared between two or more group and this is made possible adopting strategy enabled by modularity such as the platform-based product design or product architecture, according to which the cars or at least a major component of are designed by more than one hand (considering the brand) and then adopted by the offerings of the promoters (Jayaram and Vickery, 2018). This is another proof that testifies the focus of the cars' firms has changed from the vertical integration in the supply chain to the downside of the chain.

During the twentieth century, the changes in the automotive industry supply chain did not occur only at the production stages or the assembly-line indeed as the production switched from handcrafted to mass-production, the distribution channels, and the sale operations evolved as well. In the early stages of the industry, the car manufacturers were as well the salesperson who was in charge also of trading with the customer. At that time, cars were not produced in stock and the capacity of the garages (they cannot be defined plants) depended on the ability and speed of the workforce. In addition, automobiles were not affordable by everyone and were considered mainly toys for the rich and it worked like anyone else artisanal industry: if you wanted to buy the product you just needed to crash into the shop and ask (Mcintosh, 2017). Then, the sales agent represented a step forward: he took the clients' orders and forwarded them to the manufacturers and once the final product got to finish, delivered it to the client. However, the augmented production capacity brought by the assembly-lines needed spaces in where stock the cars so, retailers seized the opportunity and carmakers set up networks of franchised dealers: the cars coming out from plants went straight to the dealers which delivered them to customers if ordered or stocked them in their inventory (Mcintosh, 2017). The cars which were stock by the dealer were bought by the retailer that at a certain point, did not have the financial resources needed to manage the trade. This issue represents the cause that pushed General Motor to open its financial branch in order to cover its dealers for their inventory in 1919. The next step followed the entrance of private financing companies which provided consumer car loans then, carmakers extended their financial services to customers (Mcintosh, 2017). The time between the Great Depression (1929) and the second post World War was not turbulent: manufacturers were struggling in adapting their production to civil

vehicles again and finding raw materials such as metals and rubber since the war used the stock (Mcintosh, 2017). This has been the car distribution's evolutionary path that has led to the modern network and offerings portfolio: from the sale in the garage, to the loans in the mid of the century and precisely from the dealers, the servitization of the offerings started. In 1962, a Chevrolet dealer developed the first financial plan that was not aimed to own the car but to replace it every two years and then the client was paying to dispose of a new car (Mcintosh, 2017). The financial services providers from being external players joining the market, became more recently business unit owned by the manufacturer nounced as Captive Finance Companies which compared to the universal bank, were and still are more focused on the product in the field of financing and leasing, in other cases if not internal business units as the CFCs, some financial institutions have specialised its offerings in the industry giving birth to the non-captive finance companies like ALD Lease Finance – now ALD Automotive (Diehlmann and Häcker, 2013, p.109)

The current automotive industry value chain is far more complex and articulated: it starts with the research and development, then the stages linked to production and assembly with the network of suppliers and the logistics management, and finally once the vehicle is complete, it is sold, and this stage making room for the finance area that includes financing and leasing, insurance and services as well as mobility services (Diehlmann and Häcker, 2013). What emerges even looking at the diagram below, are the stages after the sale proving that the industry does not end its operation as traditionally, but it will go on like a cycle with the use and disposal of the vehicles by the users.

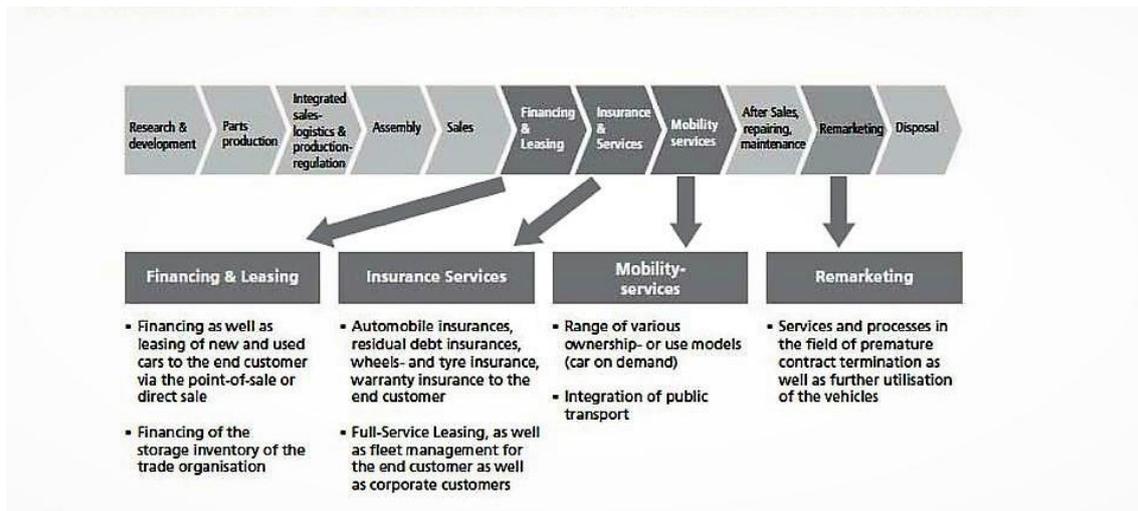


Figure 2. Automotive Value Chain. Diehlmann, J., and Häcker, J. (2013). *Automotive Management: Navigating the next decade of auto industry transformation*. Walter de Gruyter. p.2.

It is exactly the finance is the one that is most challenged by the new market trends and the one that is supposed to adapt its business to provide the right solutions at the right time. The new industry's technology, as well as the new mobility requirements of customers, push the carmakers and the financial institutions tied to them to align their existing business model to extend their offerings in line since clients value the use of a car and not its ownership (Diehlmann and Häcker, 2013, chapter 6).

Obviously, the carmakers look forward to increasing their sales by providing individual mobility solutions despite the goals emerging worldwide of protecting the environment (Diehlmann and Häcker, 2013)

“In addition, there are challenges over whether and how producers and dealers capitalize on the desire of consumers to ‘stay connected’ in terms of being networked, how consumers shop for and design the cars they buy, and how demographics and increased urban living will impact on demand. On the latter, with more people living in urban spaces, trends like car sharing may develop, as a quasi-public transport mode, making manufacturers think about what they offer consumers in terms of mobility services rather than car ownership per se.” (Bailey, De Ruyter, Michie and Tyler, 2010, p. 317)

“What are the possible contributions of the automotive financial service providers in the context of these new mobility trends? While financial products were previously linked to the ownership of a vehicle, they must now be developed more in the direction of use-based billing.” (Diehlmann and Häcker, 2013, p.132)

These are just two examples of clear statements representing the challenges the automotive industry has faced and is still facing for at least the last ten years. Challenges that go far beyond and must be added to those represented by the technologies' changes such as the electrification.

2.4 The Positive Externalities. Responsibilities, Regulation, and Compliance

The most significant section of the whole work. Here, the reasons why the services substituting car ownership are so valuable will be listed and stated clear to make the reader able to understand the potentiality of these modern solutions. The new mobility solutions have an impact in terms of environment, control and prevention of undeclared work/informal economy, the responsibility of maintenance and management of cars, the fulfillment of the bureaucratic duties. Trying not to provide a personal evaluation, the implications brought by the new market trends will be analysed adopting a double perspective: the first one adopts the whole society lens and the second from the driver-users – both private and professional – perspective. Adopting these two perspectives, the major implications types have been identified in environment-related, taxation, economic/financial, and bureaucracy linked duties and will drive the analysis.

Growing interest is arising worldwide on the sustainability issues in every industry. Additionally, there are other country-specific issues in each nation. Being the mobility industry among the most industrialised and impacting industries it becomes significant to highlight what does it mean to dispose of a car through a long-term rent contract instead of disposing of it.

What does own a car entail? In Italy, not considering the purchasing transaction, owning a car means maintaining the good in a upright shape according to the traffic laws which includes even an official check after four years from the registration and then every two years; insure the car; based on a national law dated back in 1953, vehicle owners must pay the annual car property tax (Ministero delle Infrastrutture e dei Trasporti, n.d.). These duties mean of course additional costs to the fuel, the ordinary and extraordinary maintenance, and the purchasing expenditures, not to talk about the sunk cost behind the difference in the purchasing price and the re-marketing price. In relation to the recent considerations expressed above, long-term car rental service is classified and known as a full-service contract or/and fleet management service (Diehlmann and Häcker, 2013). In fact, as clearly stated on the service providers' websites, they offer to free their clients from all the management obligations of ownership (Aldautomotive.it, 2020; Arval COM, 2020; Leasys.com, 2020). After choosing

the desired car, the customer – it may be both professional or private – will pay a deposit immediately and then after the delivery of the vehicle, the monthly fees will start. The contract to be signed is fully tailorable. It means the user can decide the duration (usually between 12 and 60 months, few companies allow 72-months contracts), the kilometres-range included, the service included ranging from the number of set of tires, the ordinary and extraordinary maintenance, the kasko car insurance, the property tax, the fuel card, the fine management, the replacement car, and the road assistance. The kilometres range included, and the number and entities of the optional services added will make the monthly price proportionally increase.

Besides the differences between the ownership and the car disposal duties, other pressures coming from the different fields must be taken into account to analyse the impact a service-focused value proposition can bring instead of the traditional formula.

The global debate on the environmental issues and its consequences should be considered: in December 2015, the Paris Agreement was signed setting out the landmark for the common goals of reducing the pollution (Unfccc.int, 2020). The share surrounding the global environmental scenario and the changes it is experiencing have increased during the last decade. Environmental pollution has become the most crucial challenge worldwide (El Ouadghiri et al., 2019) and since traffic emissions account for the 17% of the global CO₂ emissions, tightening emissions regulations and country quotas are forcing companies to increase the penetration rate of low-emissions vehicles (Fletcher, Marcell and Crocker, 2018). According to the modern recommendations in terms of CO₂ emissions, the carmakers have invested huge amount of resources in the R&D activities to develop new technologies alternative to the carbon-fuel engine and more efficient than them though now on the market there are already on sale more efficient and low-emission – *if not zero-emissions* – vehicles alternative to the traditional gasoline and diesel engines such as the full-electrics, hybrids, mild-hybrids. Strict limitations on road traffic, the reduction in the batteries' price, the expansion of the charging points network, and greater environmental awareness among consumers will further accelerate the adoption of these new technologies in the coming years (Gao et al., 2016).

Then keeping in mind, the characteristics of the service-focused offers, especially the long-term rental, the implications from both the perspectives mentioned will be analysed.

From the society point-of-view, the long-term rental represents a viable solution to foster the adoption of the new green technologies which are less price competitive compared to the traditional fuel vehicles and then the customer can drive cleaner cars without the initial investment. In addition, societies might not be ready to switch to the new technologies because of skepticism especially by the older portion of people and the hiring option offer the flexibility needed to avoid the uncertainty related to the unknown: the ownership of the car and the responsibility upon it rely on the rental company, customer has the right to dispose of a car in efficient conditions. People, especially in Italy, still rely on consolidated technologies and are skeptics of the change. This implies that the Italian active car pool is among the oldest European car pools with an average age above the 11 years. It is due to the cultural features characterising the Italians but also because of the economic situation experiencing by the country as described in the first chapter. From the users' perspective then, the long-term rent solution makes the latest technologies affordable both economically because of the capital investment avoidance, and in terms of risk-taking about unknown and uncertain reliability since the responsibility of the car remains on the company. This contributes to reducing the average age of the active car pool and having a less polluting vehicle on the roads, the traffic restriction may be reduced for instance. Another special aspect environment-related is that users, when sign the rental deals, are asked to choose their possible covered distance during the contract duration. This means people need to evaluate their needs and be responsible for them and considering the rent prices increase with the mileage augment, it turns out users may be more cautious customers (ANIASA, 2020).

The second criteria refer to the taxation and the fiscal issues country related. Since in Italy the tax evasion is around 130 billion euros, it remains one of the toughest challenges of the government (Visco, 2019, p.138). Unfortunately, tax evasion is a common practice among Italian people, even privates, and the automotive industry is not an exception. Under-reported transactions value or no reported at all represent one of the main tax evasion sources and it then translates in under-reported income, which is double tax avoidance: the value-

added tax and the tax on incomes (Slemrod, 2007). This mechanism takes place in the automotive market as well, especially in the ownership case. Indeed, when the car owner needs some fixing up expects expensive expenditures so if the service point operates without declaring the transaction, the customer can avoid the tax quota expenditure. However, the long-term car rental companies have established a system that if it does not remove completely this issue, it helps to contain it. In order to provide the services to their clients, as previously set, rental companies have built up networks of complementary services providers such as service points or car body shops. These networks deliver the service to the users and then they collect the transaction prices straight from the respective rental company. Of course, this system can work only if every transaction is declared and the relative papers are produced (invoices, goods notes). This the only way accepted by the platform owner to regulate the system and the transactions: money exchanges happen only based on supporting papers¹. This implication may have a huge impact on the whole society and the method adopted in the automotive industry may represent a model to be followed in different industries. In addition, considering, for example, the car property tax, since the car rental is the owner of a multitude of cars, the tax assessments may be easier for authorities and more effective. The fact that a company is responsible for its circulating cars does help the authorities checking not only about taxation compliance but also for all the paper duties related. Indeed, the bureaucracy hidden behind car ownership requires the owner to carry out several periodic duties. Being the maintenance of the car's part of the core business of the rental companies, it assures their vehicles are insured with clear benefits for all the citizens and the reduction of bad news opportunities related to events involving not-insured autos. Once again, it implies much easier checking activities by authorities and more attention in keeping the cars in good condition according to the traffic rules.

¹ The author works in network's point and deals directly with the rental companies even managing the agreements and contracts regulating the relationships between rental companies and their networks' points. These are standard agreement where is well established that the car rental has the control over the platform system and imposes the conditions to be part of. From this point further, many information may not be referenced because of the author's background.

Starting from the concept of the network developed by the car rentals, it must be said that it has one more advantage. Considering the first ten car rental companies operating in the Italian market, it can be noticed as all of them are brands partially or totally owned by banks and financial institutions or supported by banks, financial institutions, and carmakers (Dataforce, 2020). This feature makes the supplier confident and gives stability to transactions and the market as a whole.

Completing the users' perspective, in terms of taxes and economic/financial aspects, a distinction must be done. Private users have different needs and use compare to the professional or company users and for this reason, different considerations are required. From a fiscal point of view, the privates do not have advantages or differences between owning a car or dispose of it and pay a monthly fee. They will pay the VAT tax on the rent prices as well as paying the VAT tax on the car purchase. The property tax is not due by users but of course, the rental companies will charge the monthly fee by an amount of money proportional to the tax. In terms of financial and economic convenience, it cannot be stated clearly and would never be for sure. The idea that is two totally different concepts must be taken in mind. The customer purchasing a car is buying a good, the user subscribing to a long-term rental contract is paying to get a service, to dispose of a good in a tailored manner. The analysis that can be stated about the financial difference is only one possible. On one hand, the car purchase is a significant fixed initial investment and the difference with the potential re-marketing price, but also the uncertainty of potential events occurring in the meantime such as damages, breakdowns or car accidents might increase the costs of the ownership. On the other hand, users are not required to pay an initial price and can rely on the certainty of periodic payment allowing the fleet manager to precisely estimate the costs related to the fleet, an important feature, and possibility when it comes to the budgeting phase. This counts both for companies and private users. However, in terms of taxation, company users still have some advantages compared to privates.

The long-term car rentals' customers can be split into two categories: private and professional. This distinction is due to the differences aiming the choice to go for rental instead of buying a car. As already set, private users choose to rent mainly because of the certainty of the expenditures and their predictability. In the case

of professionals, this is only one of the drivers, VAT holders, and companies opt for rent also considering the ability to deduct expenses and the value-added tax quota. In addition to those companies needing more than one vehicle, the management of the fleet represents a time-consuming and costs-increasing activity that if outsourced would be managed better, lowering the linked risks, and with fewer responsibilities (Giovanelli, 2018).

For what concerns bureaucracy, users might not see the benefits brought by the long-term rent formula strictly by looking at the money expenditures however considering the car management in its whole, it can be affirmed that this mobility solution is a positive proposition to everyone, privates and professionals. To recap the main benefits avoiding the duties for drivers are: budget management, the absence of advances and maxi-rate, do not require bank credit lines inspections, absence of unforeseen situations related, paper duties and periodic car audit, insurance services, fines management, and finally avoid the duty of re-sale the used car and the linked devaluation problem.

Summing up:

LONG-TERM RENTAL IMPLICATIONS	SOCIETY PERSPECTIVE	USERS PERSPECTIVE
ENVIRONMENT	Decrease the active national car pool average age; Foster the diffusion of the last industry's technologies. Enhance the opportunity to issue <i>ad-hoc</i> legislation.	Allowed people and fleet to access the most recent technologies avoiding traffic restriction and reducing their pollution without immobilising money.
TAXATION	Reduce the relationships between the industry's players subject to informal economy transactions and limit the tax evasion chances. Tax on ownership paid by the rental companies i.e.	Tax breaks and benefits, especially in the professional users' case, may represent valid tools to enhance the potential customers engagement.
FINANCIAL	Stability in the money exchanges since the major rental companies are owned and controlled by banks.	Fixed monthly price: facilitate the firms' fleet management, avoid uncertainty and expensive events.
BUREAUCRACY	The whole paper duties are upon the rental companies: audit by the authorities is much easier. All the vehicles have been insured i.e.	Allow users to definitely avoid the paper duties: users only need to pay the monthly fee.

Table 5. Author's elaboration. Summing up.

3. The Business Case Study

It has already been set that long-term car rental is the market solution alternative to purchasing more appreciated by Italians during the last decade. In 2019, this segment's market share was equal to 14,66 % of the new passengers' car registrations and to 23,26 % in the light commercial vehicles category (Dataforce, 2020). Since 2016, the passengers' cars long-term rental market share has grown by 2,67 points with a growth rate higher than + 22 % (Dataforce, 2020). According to the data published by Dataforce, the first two players of the market in terms of car registrations per year account for more than 43 % of the entire long-term rentals' new registrations both in 2019 and 2018 (Dataforce, 2020; Saladino, 2018).

Within this market channel, the players have been categorised in three groups: top, medium, and captive companies. The top brands operating in the long-term car rental are those not directly linked to any carmakers, mainly specialised businesses participated by banks and financial institutions. The medium long-term rentals are companies developing their business likewise, the top brands are independent firms but not so successful as the top. Finally, the captive rentals are the brands controlled by OEMs and car manufacturers (Dataforce, n.d.). Among the top ten brands of the market, there are eight out of ten companies belonging to the top category showing that the incumbents of the channel still have some experience related advantages (Dataforce, 2020). More than that, a specific top brand is developing all the target customers including privates and for this reason assume more relevance (Saladino, 2018). In addition to the growth and development experienced by ALD Automotive, the choice to analyse this company was almost forced since the author is employed in a service point of the brand's network.

Nevertheless, Ald Automotive has been the best among the top brands and second only behind the captive Leasys (FCA) in terms of number during the last four years. In 2016, its market penetration share was 19 % (Dataforce, 2017).

The following year, ALD was the leader in terms of new registrations with a market penetration equal to almost 22 % (Dataforce, 2020). In 2018, it scored 21,1 % as its market share reaching its peak in the number of riding cars (Dataforce, 2019). 2019 was a completely different year because of the growing competition but also because of some business innovation. As the rental market has increased its numbers and influence, Ald Automotive has lost 7 % of market share (Dataforce, 2020).

3.1 ALD Automotive

ALD Automotive is the business line operating in car leasing and fleet management controlled for 80 % by Societe Generale, the French financial services groups operating worldwide (Aldautomotive.com, 2020). ALD Automotive is the leader in the European market and is the second biggest player globally: they serve directly 43 countries and 12 more through five key partners around the world managing more than 1,68 million vehicles (Aldautomotive.com, 2020; ALD Automotive, 2020; ALD Automotive, 2019). What is outstanding is their ability to tailor their offers according to cultural-specific needs per each country in where they operate and their constant evolution path including new value propositions as they emerge from the customer behaviors.

They provide their services to customers ranging from private individuals, SMEs, to large corporates, they do so through the broadest network and key partnerships worldwide. This allows them to be closer to the customer and to keep their leadership on the market.

Their vision is set toward the new challenges coming ahead and sustainable mobility is at the core of their current strategy to prepare for the future (ALD Automotive, 2019). They are strongly committed to sustainability issues and their CSR policies put them at the forefront in leading the market and shaping it following the trends drawn by new technologies and digitalisation, as well as the changing customers' preferences. They always test and develop new value propositions according to the cultural scenario and modern customer needs. In Belgium and Netherland for example, they launched ALD switch the contract that allows drivers to dispose of efficient city cars for daily use and then to access different vehicles on special occasions or for particular needs. Another example

is the ALD *companybike* that includes a bike in the service contract to move easily during peak hours, this service is temporarily available in Belgium and Netherland. ALD *electric* is the portfolio's product consisting in provide a full company analysis in order to foster the adoption of electric vehicles by companies; in France, a team of experts supports companies providing fleet analysis and recommendations to introduce e-cars within their pool. All these examples are under the label ALD *newmobility* developed to support alternative mobility offers. In those countries in northern and central Europe ALD has taken concrete and innovative steps to meet the emerging mobility expectations. Despite the innovative solutions implemented, they also have designed a offers' system ables to intensify the vehicle's use.

3.2 ALD Automotive Italy

ALD Automotive entered the Italian market in 1981, almost 30 later its foundation, and currently is managing more than 200,000 vehicles in the country (Aldautomotive.it, 2020). They pioneered the market by introducing a well-established network considering both the assistance and the commercial aspects. In Italy, they can count on 8000 shops of different dimensions. They have categorized their assistance and the commercial supplier under different categories creating a tailored and widespread network ables to meet the diversified customers' requests according to the installed base and cars riding the roads. Base ALD, Premium Points, Service Points, and garages in the agreement are the services concerning the assistance but not only. Brokers in addition to the agencies in agreement combined with the Base ALD and the ALD Mobility Stores complete the network offering to clients contracts and all the info needed (ALD Automotive, 2019).

The corporate values and operations performed by the brand are in line with the emerging trends characterising the market. They are a proactive company in terms of digitalisation and innovation. ALD has developed a fully digital software to manage their vehicles accessible both by service providers and drivers in which every single information concerning the cars is available. Through it, each request and transaction is managed by the rental company that has also the duty to authorise and correspond the price to the suppliers. In other terms, ALD Nemo

(the software) is the material platform that governs the ALD businesses, ranging from invoices to car returns.

As well as in other European countries, even in Italy, ALD innovates its offerings. Currently, the service portfolio is getting wider with the aim to engage even more drivers (ANSA.it, 2020). *RicariCar* was the formula name used to widespread the first effective pay-per-drive solution than was the turn of ALD Permuta and ALD 2Life which allow drivers to benefit lower prices since they are driving fresh second-hand cars. More recently during 2019, ALD Automotive launched in Italy ALD Green the offering concerning fully electric vehicles and the more innovative ALD PopGo and ALD PopMove. The first consists of a car-sharing while the second one, being a “Social Mobility Network”, has opened the second stage of shared mobility. Indeed, it is a web app allowing subscribers to share their cars when not used and to access others’ cars when needed. These investments commit the company toward the expected industry evolution increasing their responsibility and making them the market driver.

3.2.1 ALD Car Rent. The Long Term Rent.

ALD Car Rent is the traditional long term rental solution (Mobilitysolutions.aldautomotive.it, 2020). It provides the driver with a new brand car with a full set of services including registration duty, property tax, car insurance, no responsibilities in case of damages, theft or fire, regular and extraordinary maintenance, milage, fines management, purchase preemption, roadside assistance, and well-established customer service. The contract can be up to 5 years long.

3.2.2 ALD Car Market. The Second-hand Market.

ALD Car Market is a brand name that identifies the virtual shop through which the returned cars are sold (Mobilitysolutions.aldautomotive.it, 2020). After having received the returned cars, the company restores the security systems and any damages to sell certified vehicles providing all the papers and the property transfer, an extended warranty 12 months long, and roadside assistance in addition to financial solutions in agreement with the corporate financial branch Fidelity.

3.2.3 ALD 2Life. Re-renting a Used Car.

ALD 2Life is the innovative offering promoted during the last year by the company (Mobilitysolutions.aldautomotive.it, 2020). It combines the concepts of the previous two solutions: ALD second life or 2Life is the long term contract that has as rented good a second-hand car. This solution is born with the aim to meet the needs of private drivers and to engage new drivers. Indeed, the adoption of used cars as rented goods provides a 30 % discount on the monthly price compared to the rent of a new brand car without giving away the comfort of the included services. ALD 2Life represents the right solution to enter the rental market for the first time.

3.2.4 ALD Green. Electric Open Access.

ALD Green is the company's eco-friendly solution. It is the car rental offer fully electric vehicles (Mobilitysolutions.aldautomotive.it, 2020). This proposition relies on the tax and mobility advantages connected to these cars and also on people's integrity especially nowadays. ALD Automotive supports the adoption of sustainable technologies even reassuring the skeptics with their assistance and services avoiding the traditional barriers slowing the adoption.

3.2.5 ALD CarSharing. An Efficient Fleet Management.

ALD CarSharing is the only solution reserved for corporate fleets and introducing in a tailored manner and in the specific company's environment the concept of car sharing (Mobilitysolutions.aldautomotive.it, 2020). It offers to firms the fleet and the fleet management system to manage it as car-sharing among employees. This solution brings more flexibility and contributes to saving costs. Every company can choose the needed cars in terms of number and quality and it may also create its fully electric fleet. Then, the company's fleet manager has a digital platform provided by ALD to manage the authorised drivers and the journeys. ALD CarSharing gives the opportunity to dispose of cars even during free time and at the weekends.

3.2.6 ALD Ricaricar. The First Pay-Per-Use.

ALD RicariCar is the product that makes the driver a responsible consumer (Mobilitysolutions.aldautomotive.it, 2020). This offer consists of a fixed monthly price and then a variable fee based on the kilometers traveled. The driver disposes privately of a car by paying the monthly rental fee and every time he/she needs the car he/she has to buy a top-up which allows the user to drive the car.

3.2.7 ALD Permuta. Managing the Transition.

ALD Permuta is the formula chosen by the company to attract more private clients (Mobilitysolutions.aldautomotive.it, 2020). Through it, the company purchases the client's used car both paying the agreed price or deducting the price from the future rental fees the driver would pay for his/her rented new brand car. This proposition has been studied by ALD to make easier the switch than a privately owned car and a rental contract. Indeed, in addition to taking care of the second-hand car, the company keeps the driver's insurance record suspended five years long so if the client is not satisfied with long-term rental service, he/she can go back and restore the previous conditions.

3.2.8 ALD PopGo and PopMove. The Ready to Share.

ALD PopGo is the first long-term car rental formula that allows the user to share its ALD car with the community members (Mobilitysolutions.aldautomotive.it, 2020). It is an innovative solution developed by the company to integrate the long-term rental with the car-sharing system. Similar to the ALD CarSharing the product reserved to corporate fleets, this proposition aimed at everyone who has rented a car. Subscribing the option, the user can make its car available to the others registered on the community ALD PopMove. Every time the car gets a ride the 70% of the price paid by the driver corresponds to a discount on the original user's monthly fee. It is defined by the company as a "circular mobility" model: who shares its car can save money, who is looking for a car can find it by only paying for the limited use. This system does not require any keys exchange, everything works through the app PopMove.

3.3 Why the ALD Automotive case study is so interesting?

The ALD Automotive case has been presented not only due to the market success experienced by the company during the last years as testified in the figures. The brand provides also clear and obvious examples of how the mobility industry is changing. According to different forecasting reports edited by consultancies, the drivers are moving toward new mobility forms and solutions (PwC, 2017; Deloitte, 2015). New technologies such as electric power terrain and autonomous drive are impacting even the values attributed to vehicles. This is also because of the growing pressure made by environmental argumentation. Many agree on the fact that the new technologies and concepts will be more affordable – not only economically speaking – because they will no longer have to be bought outright but can instead be paid for in small amounts per use. The pay-per-use revolution has been identified and clearly stated as dominant. It will steadily replace the ownership and then, carmakers and suppliers need to rethink their business models to meet and exploit the changes occurring in the market (PwC, 2017; Deloitte, 2015).

The rise of digitalisation and a software-based manner of interactions and transaction management will then help the companies finding out effective ways to reach out to their customer and establish profound relationships to increase loyalty and build up solid brand experiences (PwC, 2017).

Following the trends highlighted in several industry's reports and after having briefly analysed the company market strategy, it clearly emerges the innovative approach adopted by ALD Automotive. They have been able to implement a business model and several value propositions matching the emerging trends, consolidating in this way their market lead not only in terms of numbers but also as a market shaper.

4. Final Conclusion

The automotive industry is currently passing through a turbulent time. The text referred to reports analysing the trends impacting the mobility market on several occasions. New technologies and concepts combined with demographic and consumers behaviour changes are challenging the players and are setting new business requirements.

In this scenario, alternatives to traditional car purchases have been developed. In that stage, servitization has made its contribution. The value proposition succeeding in the market corresponds now to a bundle of goods and services able to satisfy the new mobility demand. This bundle assumes the form of the Product-Service System getting even closer to the concept of platform ecosystem essential to manage a business-oriented toward the sharing concept and the pay-per-use.

One value proposition among the others has succeeded in Italy. The long-term car rental formula, according to the figures analysed, gained growing relevance as a market segment during the last decade. Its features and properties make the rental a valuable solution for coping with Italy's specific characteristics and the integration of the new concepts emerging. Its flexibility and modularity features look perfect to gradually drive the Italian automotive market toward the new coming scenarios highlighted by several parties operating in the industry.

Among all the players, the top rental company ALD Automotive seems to have taken the challenge in the proper manner pushing further the competition. As explained, this kind of solution is believed to bring several benefits to society as a whole, in addition to the individual user or the company's fleet management.

Several implication labels have been identified: environment, taxation, finance, and bureaucracy are the main aspects involved. However, to gain market share and get these advantages, long-term car rental as well as the other innovative solutions have faced some resistance. Both customers and providers have some concerns to overcome in order to adopt these service-oriented alternatives.

Clients might be sceptical about ownerless consumption and providers may be concerned about the goods responsibility, the ability of their organisation to switch mindset, and the lack of experience. Despite of these barriers, the rental services in the automotive market seem to be the suitable solution to sustain the emerging industry trends and to comply with the environmental issues disrupting the environmental impact traditionally characterising this sector. Further development will for sure arise augmenting the sustainability of the new market formula sold to clients nowadays.

The accelerated growth registered by the long-term rental segment in 2016 and 2017 was fostered by not only the demand switch but also by governmental actions in terms of tax breaks and positive financial measures. In detail, in 2016, the so-called *Super ammortamento* became law and it allowed companies investing in new assets to fiscally overvalue their expenditures up to 140%. This government policy helped to increase the new car registrations especially those of them signed by car rental companies since this action's target was companies (Ministero dello Sviluppo Economico, 2019; Giovannelli, 2018). This action enabled a price reduction that fostered the adoption. The government should foster this kind of solution instead of preventing it. The new tax on the companies' fleets established in the Italian Budget Act for example has been welcomed in a controversial scenario. The chairman of ANIASA has clearly stated in a press release the negative effects such an action might have mitigating and lowering down the positive implications (ANIASA, 2019).

After having analysed the new market propositions and their proven or possible implications, it is believed that government should adopt positive action supporting and sustaining these mobility solutions since they bring advantages to the whole society. On the other hand, business players and mobility service providers have to innovate their organisation implementing the business model on the basis of what ALD Automotive has done. The final aim should be the engagement of an even growing number of users to make the industry even more sustainable.

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Table 4. New car registrations growth per year and car rentals' new car registrations growth per year. Figures elaborated by the author, original source annual reports by UNRAE and ANIASA. Years 2017, 2018, and 2019 data source Dataforce.de/it/.

Table 5. Author's elaboration. Summing up.

Figure 1. Drivers of the new mobility paradigm. Fournier, G., Hinderer, H., Schmid, D., Seign, R., and Baumann, M., 2012. The new mobility paradigm: Transformation of value chain and business models. *Enterprise and Work Innovation Studies*, 8, p.12.

Figure 2. Automotive Value Chain. Diehlmann, J., and Häcker, J. (2013). *Automotive Management: Navigating the next decade of auto industry transformation*. Walter de Gruyter. p.2.

Box 1. The International Scenario.

Box 2. What is the Market offering?