ISCTE Business School
Instituto Universitário de Lisboa

AUTOMOTIVE MARKET: DOES CORPORATE BRAND REPUTATION AND BRAND AUTHENTICITY LEAD TO BRAND ATTACHMENT ?

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Firstly I would like to express my special thanks of gratitude to professor Sandra Loureiro for her unconditional help, patience, support and of course guidance through every step of the development of my master thesis project.

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Abstract

The evolution of the automotive market since its beginning changed drivers' life in multiple ways. Technologies evolution allow cars manufacturers to update there models and make them continuously safer, easier to drive and respectful of the environment.

The automotive market is composed of numerous manufacturers form everywhere in the world, leaded by some well-known groups as Volkswagen from Germany, Toyota from Japan, or General Motors from U.S.A. Therefore, cars companies fight hard to get more customers driving and enjoying their vehicles. In the middle of all those vehicles how do consumer behaviour is analysed by marketers to attract them into a specific brand, does corporate brand reputation or brand authenticity lead to brand attachment?

Empirical evidence based on data collected from the inquiry applied to a sample composed by 327 owners and drivers of Tesla, Toyota and Volvo cars, suggests that automotive market's customers are mostly influenced by the authenticity of the car brand rather than by its corporate reputation. Thus, customers in general tends to have more attachment toward a brand that has a good 'level' of authenticity.

The present research adapted several variables as customer sentiment and relationship toward a brand, as well as corporate brand reputation, brand attachment and brand authenticity. Also the sample used for the inquiry was segmented following next variables: Age, Gender, Household situation, Job Position & Living Area.

Considering that there are not many studies & research developed around the automotive market when brand attachment construct is used, also when three single brand are compared and analysed each others on the same scale. Thus this study aim to give new insights into the automotive market, more precisely, on how do customers get attached to a specific brand.

Key-Words: Consumer Behaviour, Automotive Industry, Corporate Brand Reputation, Brand Authenticity, Brand Attachment

JEL Classification System : M30 - Customer, Relationship, M31 - Brand Preference, Consumer Sentiments

Resumo

A evolução do mercado automotivo desde o seu início tem vindo a modificar a sua estratégia diversas vezes. A evolução tecnologias permite aos fabricantes de automóveis atualizar os seus modelos e torná-los continuamente mais seguro, fácil de conduzir e respeitador do ambiente.

O mercado automóvel é composto por numerosos fabricantes em todo o mundo, liderado por alguns grupos bem conhecidos como Volkswagen da Alemanha, a Toyota do Japão, ou a General Motors dos EUA Portanto, os fabricantes de automóveis lutam arduamente para conseguir mais clientes a comprar e desfrutar de seus veículos. Neste contexto como o comportamento do consumidor é analisada pelos profissionais de marketing para atrair os consumidores para uma marca específica? A reputação da marca corporativa ou autenticidade marca leva à atração à marca?

A evidência empírica com base em dados recolhidos a partir de inquérito aplicado a uma amostra composta por 327 proprietários e condutores de veículos de Tesla, Toyota e Volvo, sugere que os clientes do mercado automotivo são principalmente influenciado pela autenticidade da marca de carro e não por sua reputação corporativa. Assim, os clientes em geral tende a ter mais apego em direção a uma marca que tem um "nível" bom de autenticidade.

A presente pesquisa adaptou diversas variáveis como o sentimento do cliente e relacionamento em direção a uma marca, bem como a reputação da marca corporativa, o apego à marca e autenticidade da marca. Além disso, a amostra utilizada para a pesquisa foi segmentada segundo: idade, sexo, localização do domicílio, posição no emprego e modo de vida.

Considerando-se que não há muitos estudos e pesquisas desenvolvidas em torno do mercado automóvel em torno da atração à marca, bem como não se conhece outros estudos com a comparação do modelo e medidas de avaliação dos constructos em três marcas de automóvel também quando três marcas propostas, este estudo tem como como objetivo dar novas evidências sobre o mercado automóvel, mais precisamente, sobre como os clientes se sentem atraídos a uma marca específica.

Palavras-chave: Comportamento do consumidor, Industria automóvel, Reputação da marca corporativa, Autenticidade da marca, Atração à marca

JEL Classification System: M30 - Customer, Relationship, M31 - Brand Preference, Consumer Sentiments

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1. Introduction

1. 1. Research Motivation & Question

In today's cars market, safety and quality has been gaining a huge importance mainly due to the increasing number of cars presents on roads, as well as customers wish to be safer when they travel by cars. Cars manufacturers worldwide work hard to overtake themselves aim to provide best secure and high quality products. Some cars manufacturers, such as Toyota provide products that use eco-friendly energy, aim to reduce carbon emission and gas over-consumption.

Since its creation, Volvo's principle goal has been 'safety'. In 2008, Volvo stated the following vision: « By 2020, nobody shall be seriously injured or killed in a new Volvo car » (Volvocars.com). This statement clearly formulates an ambition and long-term vision to create cars that will not crash. Indeed, the World Health Organisation estimates that approximately 1.2 million people are killed and over 50 million injured in traffic accident every year, hence, Volvo's safety goal is one of the hardest to reach and provide to drivers. In the history of car manufacturing, Volvo brand is the first one which aim to put safety features as a core of their brand value, while others are more focusing on engines performances or design aspects.

Toyota brand is well known worldwide mainly because of its famous Prius Hybrid car, but also because of its long history on car market. Created at the beginning of the 20th century by a rich Japanese industrial man, Toyota became though the years the first car manufacturer worldwide, ahead from the German Volkswagen since 2012. The Japanese auto manufacturer is the world's leader of Hybrid and Plug-In Hybrid vehicles, and beside of that, a pretty hard competitor on all cars ranges as for instance All Road car, Sedan, or even Station-Wagon car, thus give Toyota the power to be one of the major auto manufacturer worldwide.

After having seen 'safety features' and 'Hybrid engines' main actors, Tesla Motor manufacturer could be a good crossing point between those two car brand. Indeed, since its creation in 2003, Tesla's cars tend to be more and more present on our road. Initially, only one car model was produced, the Tesla Roadster, which role was to propose the perfect mix between a high price sport car and a powerful electric engine for people who can afford it and for those who want to be more 'eco-friendly' and respectful of the environment. Today, more

than ten years later, Tesla brand is still not making profit, but the challenge is still here, none of the biggest worldwide manufacturers tried to sell 'premium-luxury' car with a full electric engine inside. Thus, those main reasons give Tesla brand the future possibility of being one of the bigger 'premium-luxury' car manufacturer worldwide.

Different motivations steered the researcher of this thesis to choose this theme. Firstly, it is connected to a business area that the author likes, car manufacturing. Volvo brand is also active on business to business market, by providing mainly trucks and construction vehicles for companies activities and they have a pretty good reputation in this market segment, hence it can be a good company to study and research on, but Volvo cars is no longer part of Volvo AB group, is now owned Geely, the Chinese car manufacturer.

Then, Toyota is the worldwide number one car manufacturer, with very advanced products technologies as Hybrid engine, Plug-In Hybrid or Full electric engine. Thus, by being the first worldwide manufacturer, the Toyota case could be very interesting to work on, to know thanks to how does it leading the car market.

Finally, Tesla Motor Company is the youngest car manufacturer worldwide, also the first to deliver only full electric engine for all their model. Tesla's target is definitely young and have money to afford this kind of vehicle. Therefore, compared to Volvo and Toyota brand, Tesla seems to not have the same customers' target, so Tesla case could be a good add-on to compare those brand each others.

Based on the consideration mentioned above, and in all the literature review presented in the next session of this dissertation, two mains research questions arise: Does corporate brand reputation and brand authenticity lead to brand attachment? Does the strength of these relationship depend on the car brand Tesla, Volvo or Toyota?

1. 2. Research Objectives

Focusing mainly on automotive market, but also on brand attachment construct, the main objective for this thesis project is to understand and evaluate to what extent corporate brand reputation and brand authenticity can influence brand attachment. As sub-objectives below:

Sub-Objective 1: To understand to what extent the Corporate Brand Reputation variable influence customer to buy a specific car brand from another.

Sub-Objective 2: To understand to what extent the Brand Authenticity perception by customer influence their car purchase.

Sub-Objective 3: To understand to that extent Corporate Brand Reputation and Brand Authenticity influence Brand Attachment variable.

In order to accomplish these objectives we built a questionnaire based on other previous studies and conducted a survey. Findings and results are presented in the second part of this dissertation.

1. 3. Structure of the Dissertation

This dissertation is composed by several chapters as following:

Chapter 1: Introduction, aim to present the research field of the dissertation, as well as give an explanation of the context in which research are based and its objectives and structure.

Chapter 2: Literature Review aim to contextualise the research field and the theoretical background. Beginning more general information about the Automotive Market and their users, and ending with more specific models used on the study. The literature review section addresses several aspects which seems mandatory to an appropriate contextualisation of the scope of the Thesis project.

Chapter 3: Methodology section aim to sum up briefly the context of the international automotive market. Moreover, this part present the conceptual model and hypotheses founded for the thesis project, also, it provides description of the methodologies used for the development of the research.

Chapter 4: Results section has the role of showing all the findings for this thesis project.

Chapter 5: Major conclusion, implications & future research is the last chapter of the dissertation. This section provide a critical overview of the findings, as well as giving limitations and guidelines for future research.

2. Literature Review

This chapter is devoted to give an overview about the automotive industry, a historical review of the three brands in the study and the construct employed in the empirical part of the dissertation. We also give insights about previous studies in the topic.

2. 1. Automobile industry

Passenger car has been the biggest creation over the last century for individuals all over the world. Car allows people to go from one point to another faster than ever before its creation, thanks to fuel engine, tires, and all new features that made the car that we see today on the street. « Siegfried Marcus designed the first automobile in 1870 that ran on internal fuel and paved the way for Karl Benz's gasoline-powered internal combustion engine in 1885. » (Ashamalla et al. 2011). This is the starting point of the USA car manufacturing. « Gasoline engines eventually started to dominate in the 1910s, competition between the inventors of the various engines was a cause of the rampant innovation. » (Ashamalla et al. 2011).

Thanks to the increasing technologies around gasoline engines, petroleum became the most used fuel for automobiles. « The 'Mass Production' and the 'Assembly Line' technologies were introduced by Henry Ford around 1913 » (Ashamalla et al. 2011). By introducing this kind of production technologies, Ford succeeded in producing his model 'T' in one and a half hours a piece, which made Ford Motor Company the largest annual producer of cars at this time. « The 1950s brought increasing engine power, speed and integrated artful designs that ushered the global expansion of the automobile industry » (Ashamalla et al. 2011). At the same time safety became an important aspect for automobile industry mostly because of the increasing number of cars on roads, the came up of the « three-point-belt » by Volvo's engineers in 1959 was the first real step crossed by car industry about safety inside automobile.

Nowadays automobile industry still get heavy weight in worldwide economy, « in 2012, for the first time of the history, over 60 million cars will be produced »(Anon, 2015), but actually some countries produces more than others, e.g.; « 1 out of 4 cars produced in the world come from China » (Anon, 2015). China took the lead and became the world's first-largest car market, mainly because of rising incomes or greater credit availability. Furthermore, vehicle penetration in China still stands at only about 40 vehicles for 1.000 people, compared to

approximately 700 vehicles for 1.000 people in the mature markets of the G7. « More than a half of cars are produce in Asia, whereas Europe produces almost a third » (Anon, 2015).

Definitely, the automobile market evolved a lot since a couple of decade, and now Asia market is the next round to win for number of cars manufacturers, mainly because Europe and USA are already grown market, as seen above 7 cars for 10 people. Moreover, it is estimated that over 1 billion cars travel roads nowadays, « In the USA alone, more than 190 million registered cars were counted » (Anon, 2015), so, a ratio close to one car for one driver, therefore kind of tough for companies to sell more in those countries.

2. 2. Alternative to 'personal car' based transport

In developed countries, it is more common to use its own car than public transportation or related ways of transport. « As more of the worlds population moves into cities, the answer to traffic congestion won't be building more roads, because there won't be any space » (The Economist, 2011). So there might be a right answer to traffic jam issue and overcrowded cities by cars. Public transportation could be an alternative to the car « Public transport has been seen as a low cost, low emission alternative to the car which can cater for large and increasing transport demands efficiently in congested urban environment » (Currie et al. 2007). Indeed, public transportation is the most relevant means of transport for people who lives in cities, by avoiding traffic jam or overcrowded streets and roads, but for people who lives out of cities, those ways of transport are not really relevant, mostly because on countryside, everything is kind of far each other, thus cars stay the best way of transport in those areas.

As we all know, petrol is not a sustainable energy, stock are limited because petrol is a fossil energy. Moreover, when petrol is used to make an engine running, it contaminate the air that we breath, by rejecting CO^2, this rejection are quite dangerous for our atmosphere and for our own health. According to the international energy agency, « transport is responsible for 23% of all energy-related emissions globally and 13% of greenhouse gas emissions » (Barrow, 2010). Therefore, we can imagine how public transport can be useful in those emissions reduction, by making travel many people in the same 'vehicle' rather than using each other our own 'car'.

« Furthermore, while CO^2 emissions are declining in many sectors, emissions from transport are expected to increase by 57% worldwide between 2005 and 2030 » (Barrow, 2010). Indeed, the increasing numbers of human being on earth followed by the progressive growth of personal cars on roads worldwide make CO^2 transport emissions the first concern of politicians and ecologists. We definitely need to find out solutions to this issue, otherwise cities could become unbreathable soon. Hopefully, some countries in the world try to change this emissions curve, « there are a lot of examples of cities and regions where they are planning to make public transport the primary means of getting around, and that is a very significant change » (Barrow, 2010) for instance in Stockholm, Sweden, where it is not possible to get into the city center by car, you need to park your car around the city and take public transport to get in downtown. Those kind of changes may be impacted by global economic recession, but still, some countries try to keep this way of thinking, such as France « It is clear that that public transport in many cities is taking a hit from the recession as reduced economic activity means less revenue. But many countries, as France, are making huge investments in public transport as part of their economic stimulus programs » (Barrow, 2010).

To conclude, there is plenty of ways to travel by public transport, the only remaining problem is the level of acceptance by citizens, means what really want customers, of course there is different thoughts between people who lives in cities and people who lives in countryside, for sure their expectations on public transport are not similar.

2. 3. Future challenge for automobile engine market

As the stock of raw petroleum still going down, and the demand for this product is still increasing, human being definitely need to find out new engine fuel solutions, more sustainable, less expensive and for sure, less impacted by stock exchange laws.

A number of different technologies and fuels are targeted for personal road transport. Future technologies including plug-in hybrids, electric and fuel vehicles, while alternative fuels include electricity, hydrogen and biofuels. « the focus in the public acceptability literature tends to be on technologies achievable in the longer term for example; hydrogen fuel tank » (Yetano Roche et al., 2010).

This could however, also reflect historic expectations for different technologies e.g. « hydrogen was an area of much technical interest in the early 2000's. Hydrogen and fuel tank vehicles, given identified as an area where in-depth research on acceptability is required » (Yetano Roche et al., 2010).

Electric vehicles are increasingly anticipated to play an important role in achieving carbon reduction. Research focusing on those real impacts are currently limited. Reflecting this, Anair et al., (2012) said, « Is driving on electricity instead of gasoline good choice when it comes to reducing emissions responsible for climate change? The answer is YES ».

« Biofuels are thought provoking because they have been introduced, at low levels, within the current transport fuel mix » (Atanasiu, 2010). At these low levels, changes in the vehicle type are not required. Public acceptability of the potential sustainability impacts of these biofuels, positive or negative, would also perhaps need to be framed in the context of acceptance of oil, and its associate impacts.

In terms of the sustainability benefits of the new technologies and fuels there is an emphasis on environmental benefit, in particular the potential carbon reduction and energy security. Social and economic benefits are, however, also identified, for example Savvanidou et al., (2010) which looks at the acceptability of bio fuels in Northern Greece suggest that « looking biofuel with farm employment opportunities could help increase acceptability ». In terms of social aspects, the symbolism of lower carbon, more energy efficient, vehicles is identified as being wider than existing ideas, which include environmental preferences or reducing dependence on oil. « More broadly, the concepts are linked to ethics, concern for others and an aim for national independence, as related to oil » (Heffner et al., 2007).

In sum, climate change is increasingly identified as a key behavioural mechanisms that is required to those changes, as well as the decreasing stock of raw material.

2. 4. Cars and safety features

According to Lundegaard (2005), safety car features « has come a long way in recent years - and still has a long way to go »

- « More than 43.000 people die on U.S. roads annually and some 1.2 million world-wide. That number is expected to climb to 2.3 million by 2020 as numbers of drivers and cars increase, making traffic safety the world's third-largest health concern, before even war and AIDS. »

- « In surveys, respondents often rate safety features as important, but they're more likely to spend on a sunroof or upgraded stereo than an optional head-protecting air bag, according to data from sources including auto makers and dealers. »

- « With the many air bags and design changes that already better protect vehicle occupants, auto-safety engineers have switched their main focus from so-called passive safety -- which is to lessen the effects of a crash -- to active safety -- the science of avoiding crashes altogether. Some suppliers are working on both. »

2. 5. Importance of 'Safety' to consumers

Safety car's features has come a long way since the second half of the 20th century up to nowadays. At the beginning of the car history, speeding, collisions and pedestrian fatalities were the new issues that requiring new solutions. The first real improvement in car's safety features was the creation of the 'three-point-belt' by engineer Nils Bohlin, which was first installed in 1959 Volvo cars.

Nowadays, safety car features start to become one of the main concern in a new car purchase decision, but for a majority of buyers and drivers, « safety take a back seat when shopping for a new car » (PR Newswire, 2001) according to a survey from (progressive.com) website made on North America's countries « 47 percent of respondents think that the colour of the car was more important than side air bags in their decision to purchase a new car » (PR Newswire, 2001). A more recent survey still in North America show that « 83% of participants reported that vehicle safety would be an "important" or "very important"

consideration when purchasing their next vehicle » (Koppel et al., 2003). This may show us how feelings of new car buyers from North America evolved about car's security features in recent years.

In Europe, general feelings about car's safety features are quite similar from North America. A survey conducted by Market & Opinion Research International across seven European countries: France, Germany, Poland, Portugal, Czech Republic, Italy and United Kingdom, show that « 'safety' was the most important aspect influencing their choice, followed closely by 'reliability » (Koppel et al., 2003).

Definitely, car's buyers feelings all over the world about 'safer cars' has become more important over the past decade.

2. 6. 'Safety' Impact on cars

Nowadays, all new cars need to meet a minimum safety level to be sold to someone, but some of them are better equipped than others, e.g. Volvo or Saab. Basics safety features on cars has been mandatory since the 1960's, « Since 1960, car safety technologies, like seat belts, air bags, and breaking systems to which these standards apply, have helped save more than half a million lives » (Wiswall et al., 2015).

Thus, safety technologies added on cars prevent injuries and can save lives, « Seat belts are the safety measure that has saved the most lives - an estimated 329.715 lives over the 52 years studied » (Wiswall et al., 2015). Despite of an increasing level of security technologies inside cars, drivers still have « full control » on it, they can brake whenever they want, etc… Security features are helping drivers to better control the car behaviour, prevent small space between cars on highway for instance, or checking blind spot to avoid crashing on another vehicle.

Volvo car brand is the one that experience this kind of safety features mainly on their new SUV XC90 « The world first safety essentially takes over braking duties at intersections should the driver inadvertently turn into the path of an oncoming car » (Volvocars.com). Moreover, Volvo's vision is to be the « world safest » car manufacturer « No one will be seriously injured or killed in a new Volvo car by 2020 » (Volvocars.com). Therefore, safety

features really impact cars and tend to follow closely drivers while them steering the wheel, aim to help them to avoid any road issues and collision risks.

With the increasing technologies level inside and outside cars, drivers worldwide tend to be more safe in their cars than ever before. Furthermore, the development of driverless cars should add more safety to drivers and others roads users, mainly because those new cars are entirely connected each others and also to traffic information. « Researchers at Boston Consulting Group said earlier this year that self-driving cars would be a reality in a decade and a common sight within two decades. » (Orr, 2015). Indeed, driverless cars engineers such as Google for instance are still experiencing those new cars technologies, means that those cars are not ready to be used yet, but soon.

There is no doubt that with time, safety features has evolved and keep evolving in a good way, with new technologies increasing level, roads issues tend to lessen. Maybe soon road deaths and injuries will be zero.

2. 7. Historical review of Volvo, Toyota and Tesla

2. 7. 1. Tesla Motor Corporation

Figure 1 - Tesla Motors Company Logo

Tesla Motors Official Website

Tesla Motor company was officially founded in 2003 by Martin Eberhard, Marc Trapanning, Ian Wright, Elon Musk and J.B. Straubel in Palo Alto, Silicon Valley, CA, USA. The name Tesla is of course related to the famous American-Serbian physician Nicola Tesla who designed the modern Alternating Current. The tesla logo, created in 2003, represent the T for Tesla according to the company. However some others existing theories about it says that it could represent the air gap from any rotational electric motor, the location where the magnetic fields interact to produce torque. The black logo is the one used by the company on their cars, while the red logo is used on their website and also on the different Tesla point of sales.

Figure 2 - Tesla Motors Company Logo

Tesla Motors Official Website

Tesla manufacturer got attention from customers following the production of their first fully electric sport car: The Tesla Roadster. Then, Tesla company released the Model S, their full

electric Sedan vehicle, which sales passed 90.000 units by October 2015 (hybridcars.com). On the 31st March, 2016, Tesla company unveiled its latest car creation, the Model III, full electric engine as its old sisters, but for only 35.000$ (latimes.com). This make the Tesla Model III the most affordable full electric 'premium-luxury' car of the market, up to now, and should be available on sales late 2017.

2. 7. 2. Volvo Manufacturer

Initially founded in 1927 in Sweden by SKF, a Swedish truck and engine manufacturer, « in Latin language, the verb '*volere'* at the first person is '*volvo'*: I roll » (cbsnews.com). Volvo brand has a long story on automotive market. Originally owned by Volvo AB group, Volvo Automotive section has been sold to Ford first in 1999 and then to Geely Group China in 2010 (marketwatch.com).

Figure 3 - Volvo Cars Logo Evolution: 1927 to 2014

Volvo Group Official Website

The logo of Volvo car hasn't stop to evolve since its creation in 1927. The ancient chemical symbol for iron, the circle with an arrow pointing diagonally upward to the right was adopted in early 1930 as the main symbol of Volvo manufacturer (volvogroup.com). This symbol is one of the oldest and most common ideograms in western culture and originally stood for the planet Mars in the Roman Empire. Also, a relationship was established between the Mars Symbol and the metal form which most weapons were made at the time, iron. Therefore, the iron badge on the car was supposed to take up this symbolism and create association with the honoured traditions of the Swedish iron industry: Steel & strength with properties such as safety, quality and durability. Still today, the iron ideograms is the main part of the Volvo logo, as well as the name of the brand in the middle of it.

Volvo's biggest market are the United States, China, Sweden, China and Belgium. « For 2013, China nearly replace United States as Volvo 's largest market, with 61.146 units sold, an increase of 45.6% compared to 2012, mainly driven by new product and expansion of the Chinese dealer network » (Volvo Car Group Financial Report, 2013). The year 2015 was a big update for Volvo brand, mainly because they released the new XC90, new design that will inspire the whole future range of products, as they showed us their new lines for the S90

Sedan and future V90 Estate Wagon model. Definitely, « Volvo is becoming a serious premium car manufacturer competitor in the market » (autoweek.com).

2. 7. 3. Toyota Motor Corporation

« Toyota Motor Corporation was created in 1937 in Toyota city, Japan, by Kiichiro Toyoda as a spinoff from his father's company Toyota Industries to create automobiles » (Toyota-global.com). In 1934, while Toyota Motor Corporation was still department of Toyota Industries, it created its first product, the type A engine, and then in 1936, its first passenger car, the Toyota AA (Toyota-global.com). Toyota Motor Corporation produce vehicles under five main brands, Toyota of course, but also Hino, Lexus, Ranz and Scion. Toyota is the world's market leader in sale of Hybrid electric vehicles, and one of the largest company to encourage the mass-market adoption of hybrid vehicles around the globe.

The first Toyota logo was inspired from its founder's name, "TOYODA" (toyota-global.com). In 1936, when Toyota company started to create personal cars for individuals, the company logo has been changed to another one, this time written in Katakana, one of the Japanese alphabet (toyota-global.com). Finally, in 1978, the current logo of the brand has been introduced (toyota-global.com). « It is composed of three ellipses that symbolise wheels, motion, speed and unity » (toyota-global.com).

Figure 4 - Toyota's First logo

Toyota Global Official Website

Figure 5 - Toyota's Second logo, 1936

Toyota Global Official Website

When taking a look closer, it is easy to notice that the two intersecting ellipses in the middle form the letter 'T', and are surrounded by the third. « These intersecting ellipses are meant to represent customer and the product, while the outer ring typifies the world and the global nature of the company » (toyota-global.com). Moreover the Toyota logo have another important meaning, when you take out each part of it, you can easily read the full name of the brand.

Figure 6 - Toyota's logo, 1978

Toyota Global Official Website

With more than 338.000 employees worldwide, Toyota is the 11th largest company in the world in terms of revenue, and was leading the market in terms of production in 2012, ahead from Volkswagen Group and General Motors (toyota-global.com). In July 2015, Toyota reported the production of its 200-millionth vehicle. According to (OICA.com), « Toyota produced more than 10 million vehicle for the year 2013 ». Well known as well for their famous Hybrid Prius car, Toyota is a pioneer in electric & hybrid vehicles for mass production.

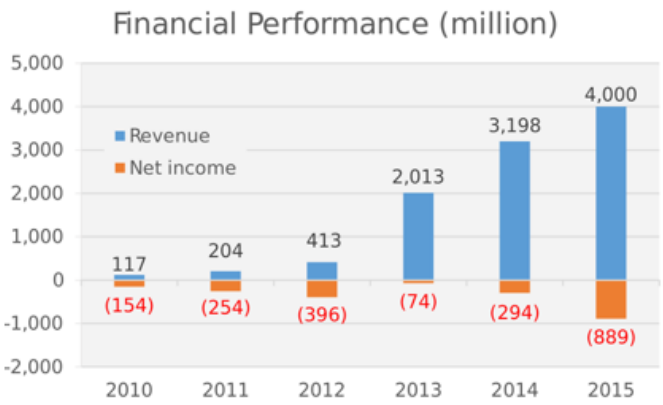
Table 1 - Comparison Between The Three Brands

	TESLA	VOLVO	TOYOTA
Type	Public Company	Subsidiary	Public Company
Headquarter	Palo Alto, CA, USA	Gothenburg, SWEDEN	Toyota, Aichi, JAPAN
Products	Electric Luxury Car, Automotive Component, Rechargeable Energy Storage System	Luxury Vehicles	Automobiles, Luxury Vehicles, Commercial Vehicles, Engines
Number of Employees	13.058	28.485	344.109
Revenue	4.04	19.742	254.649
Operating Income	- 0.716	0.797	25.713

All table content is for the year 2015, in billion US Dollars - Author Elaboration

The decision to select these three brand for the thesis project has been taken carefully. Indeed, the thesis project aim to give new insights of the automotive market, at least more customer oriented, based on brand attachment construct.

Figure 7 - Financial Performance Tesla 2010/2015



Tesla Annual Report, 2015

The reasons why Tesla brand has been selected are because it is still a kind of 'start-up' company, mainly because of their product, very high price and technology, and still doing less revenue than they should do to be profitable. But if we look at (**Figure 7 - Financial Performance Tesla 2010/2015**) we can read that even if the company is still no

earning money, at least the global turnover didn't stop to increase since the company's creation, meaning that more and more people starting to drive Tesla's car worldwide. Then the choice of Volvo has been made mainly because its is a brand with a long history on car market, also, Volvo has been a pioneer on safety features created for cars, as for instance the three-points-belt, and still today Volvo Cars Company keep going seeking and developing new safety features to always improve onboard security and drivers life.

Finally, Toyota brand has been selected for the thesis mainly because of its size. Indeed, Toyota Motor Company is still competing for the leading position alongside its main competitor the German Volkswagen. Moreover, Toyota Company is like Volvo, it has a pretty long history on automotive market and it is selling vehicles under different car brands, as Lexus or Scion. Thus, Toyota is being one of the most important vehicles manufacturer worldwide, then it could be very interesting to know a little bit more about this company.

2. 8. Brand Authenticity

« Increasingly marketers are turning to brand histories and historical associations as sources of market value » (Penazola, 2000) « and a 'cultural marker of legitimacy and band authenticity' » (Brown et al., 2003). Nowadays, it is more and more usual for companies to advertise the manufacturing location of their products. For instance, the famous shoes brand New Balance argues on their website, « Built in 1945, the Depot Street building i the workplace of almost 400 associates. Each pairs of shoes they produce is a proud work of craftsmanship that carries a little bit of the long story that is the town and its people » (Newbalance.com). Other example, the well know American Whisky Jack Daniel's claims on their bottles « Distilled and bottled by Jack Daniel distillery, Tennessee » (Jackdaniels.com).

Authenticity is clearly becoming a huge marketing argument for companies, in a world where a thousand of products could fit in the same range, authenticity can give more attractiveness, wealth or singularity to a product, or even a company. « The globalisation of business has made it common for products to be manufactured at a location different from where the company was originally founded » (Roth & Romeo, 1992). So, for a company, authenticity need to be reach, aim to give worth to a product, even if globalisation act against that. « Brands are important cultural objects » (Holt, 2002) « and significant symbolic value » (Belk, 1988), « an important artefact of institutionalisation » (Scott, 2001). Therefore, to fit

with these symbolic value, companies needs to make their product authentic and different from another. « Understanding the relationship between management action and institutional constraints is important, particularly for understanding the sources of authenticity because authentic images need to be constantly adapted and updated as they represent an interplay between creators, commercial interests, critics, competitors and consumers » (Fombrun & Shanley, 1990).

It is very important for marketers to keep working every time on their brand and product, in order to understand the nature of authenticity of their branded products or services, as well as its drivers and consequences. « What is often seen as authentic is ideologically driven or asserted arbitrarily » (Boyle, 2003). « Creating authenticity involves a number of paradoxes because brands must remain true to an authentic core while also remaining relevant » (Kapferer, 2001). Hence, the difficulty for marketers to lead their brand or product to remain authentic. « Both academics and practitioners therefore agree on the importance of authenticity for consumer behaviour and branding » (Beverland & Farrelly, 2010). This drive us to better understand why authenticity really is important for companies. « Authenticity is a core component of successful brands because it forms part of a unique brand identity » (Aaker, 1996). For researchers authenticity seems to be one of the most important aspect for a brand or a product. As we read above from the literature, authenticity is very important for consumer behaviour and branding. But, « these view are limited because researchers has shown that consumers with different level of cultural capital search for different cues to signal authenticity » (Holt, 1998), and « connotations of authenticity shift over time » (Postrel, 2003). All the companies sources must be refresh all the time if they want to remain relevant. Previous decision got therefore an impact on the ability of marketers to adopt any claim of authenticity.

In order to get a deepest comprehension of brand authenticity, we need to focus on the four dimensions of the Perceived Brand Authenticity (PBA); continuity, credibility, integrity and symbolism.

Continuity: « The continuity dimension reflects a brand's timelessness, historicity and its ability to transcend trends. With regard to the past-related aspect, the continuity dimension resembles the concept of pedigree » (Merchant & Rose, 2013). So, continuity is the fact that a company can be able to keep a brand or a product's attractiveness and symbolism. Also

continuity refers to a brand or a product's history and stability over the years. « This explain why some consumers find authenticity in reproduction such as the Volkswagen Beetle » (Brown et al., 2003). That represent « commercially created authenticity » (Stern, 1994), also, « iconic authenticity » (Grayson & Martinec, 2004). « In a branding context, this type of authenticity refers to a brand's ability to create a schematic fit with customers' expectations of an authentic brand » (Beverland et al., 2008). Companies must be faithful to themselves, by this way they ensure to have a good global continuity over the time and trends, also it gives another dimension to a product or a brand, more iconic with more symbolism.

Credibility: In our world consumers use to associate authentic brands or products with a high level of credibility. In fact, customers argue the importance they attach for a authentic company or brand to deliver what they say they do. Indeed, from the literature, « brand trustworthiness as a component of brand credibility that relates to consumers' perception of a firm's willingness to horn it promises » (Erdern & Swait, 2004). « Credibility has commonalities with brand quality, which reflects the extent to which a brand performs according to consumers' expectations » (Frazier & Lassar, 1996), and « the sincerity dimension of brand personality » (Aaker, 1997). In fact, customers are conceptualising credibility for a brand as its transparency and honesty with their clients. Also, brand credibility is described by customers as the level of willingness and ability to deliver what brands and companies promote on.

Integrity: To be authentic, « brands must be without an instrumental economic agenda, and be disseminated by people who are intrinsically arises from staying true to one's morals » (Holt, 2002). As (Holt, 2002) says, companies or brands that are truly authentic must fight for real values, then that makes their integrity. « Authenticity emerges from consumers' perceptions of abstract impressions, such as the brand's essence as communicated through its marketing cues » (Brown et al., 2003). Hence, for customers brands integrity reflects their responsibility and purity, for instance; act correctly, ethically. « Virtuousness arises from staying true to one's morals » (Beverland & Farrelly, 2010).

Symbolism: Brands must reflects values that are very important for customers, such as good feelings or group membership. Then, brands can highly involve their customers, mainly because their products are used on daily basis. Buy this way, customers can identify a brand as really part of his life because of associating its product to his way of living; « the

symbolism is similar to the connection benefit of authentic brands » (Beverland & Farrelly, 2010). So, symbolism can be explain as the reflection of the symbolic quality of a brand, that customers can use or not to define them from another.

In the current study we employ the perception of authenticity based on the idea of a quality inherent in an object ; a car, « the ability to deliver what it promises, or the virtue reflected in the brand's intentions and in the values it communicates » (Newman & Dhar, 2014).

2. 9. Brand Reputation

Corporate reputation became very important and necessary for brands and firms since the past decade. The development of new means of communications such as internet, with different devices enabled to surf on the web, makes customers being more and more close and involved with brands they like and follow online. Brand reputation is one of the main component of corporate reputation, with organisational reputation and stakeholders' reputation.

Organisational reputation refers to how the public and customers think about the 'Organisation' as oppose to the 'brand' itself, in other words, it is the publics opinion of, for instance, the organisation 'Unilever', as oppose for instance to the brand 'IcedTea' or 'Axe/Lynx'. Stakeholders reputation can refers to the thoughts that stakeholders have about the firms or brands they are dealing with, in other words, it is the providers, customers or shareholders' opinion about the firm or brand they are working with.

All of these three components make the overall corporate reputation of firms and brands. In our case we need to go in depth with the component brand reputation that can be part of brand attachment as well. Thus, the following literature review will sum up the brand reputation component.

« Although not part of the physical product itself, the reputation of brand's name has been described as an extrinsic cue, that is, an attribute related to the product » (Zeithaml, V., 1988). Indeed, brand reputation evolve all the time and is affected by the perception of their clients and consumers. It is this perception that makes brand reputation going well or not. Nowadays, with all the means of communications, internet and social network, informations, suggestions

or even problems feedbacks going as fast as never before, mainly because the biggest part of customers are highly connected and use to react online when they want to.

« Reputation embodies the general estimation in which a company is held by employees, customers, suppliers, distributors, competitors and the public » (Fombrun, 1996). « Reputation is the estimation of the consistency over time of an attribute of an entity, and if these values are consistently positive the reputation will also be positive » (Herbig & Milewicz, 1993). The literature is clear, brand reputation need to be developed over a long time period, in fact, reputation is mainly created by the flow of information from one user to another, by this way reputation makes time to be well established, thus companies need to follow very well their image aim to avoid any 'bad buzz' or any issues that could impact their brand or product reputation. « Reputation refers to the more general emotional response that an individual has towards an organisation as a consequence of its action over a longer period of time » (Amis, 2003).

« The importance of brand as an intangible resource stems, in large part, from the immense amount of choice that is available for almost any product or service and the limited amount of time or experience that consumers possess » (Amis, 2003). In fact, when brands can rely on a positive reputation overall, it makes a good asset against competitors in the market. « When customers get what they expect from an organisation, product or service time and time again the brand reputation is strengthened » (Argenti & Druckenmiller, 2004). « Consistency is seen as a powerful tool within brand reputation » (Hall, 1992). « A firm will lose its brand reputation if it continually fails to execute its stated intentions » (Milewicz & Herbig, 1994). Thus, brands need to keep working on consistency which is necessary to improve reputation. « Possessing a positive brand reputation also ensures high-quality firms will grow and have more customers because fewer customers will depart from high-quality firms and more will arrive actively from word of mouth from other customers » (Rogerson, 1983).

As the literature review says, brands are still fighting for the highest reputation level and the most valuable one, aim to attract more and more customers from other companies in the market. « Firms compete for brand reputation knowing that the firm with the strongest reputation will likely be able to charge premium prices, attract better applicants, have lower marketing costs, retain employees, enhance access to capital markets, and attracts investors » (Fombrun, 1996). Hence, companies with strong credibility and reputation across their

products can assumed highest sales prices, thereby being more powerful than another competitor. « Credibility is the believability of an entity's intentions at a particular moment in time and the trustworthiness or the degree of confidence in the source actually out its intentions » (Milewicz & herbig, 1994). So, credibility is seen as the key success to achieve high quality product, but first, companies need to develop a strong brand reputation on producing and delivering quality goods.

« Sponsorship is identified as one of the most important methods to enhance or change brand image and develop brand reputation » (Gwinner & Eaton, 1999). Hence, companies and brand that have sponsorship get better brand image and reputation by customers, for instance; famous brand as Nike or Adidas, that are fully present on sponsoring athletes or sport clubs (e.g. SL. Benfica for Adidas), host events under their brand name (e.g. RipCurl Pro Portugal, Surf Event). « For a brand to become successful the firm must have developed a positive reputation, thus a firm with a good overall reputation owns a valuable asset » (Milewicz & Herbig, 1994). For example, brand such as Nike succeeded to create a strong and good brand reputation, mainly by making quality products that fit too many sports and lifestyles, by this way ensure the awareness of the brand as well as enhance its own reputation. « If a firm want to expend its product line, a well-known brand name can be valuable in facilitating user acceptance of the new product because of its existing brand reputation » (Herbig & Milewicz, 1993). Again, the example of Nike is useful. To get inside the surf market, Nike first just sponsored athlete by using Nike brand aim to create awareness and reputation, and then Nike created its own range of surf products with a specific brand name for it: Hurley. Nike used its own reputation to give more impact and strength to its new range of products. « Once a reputation is lost it takes seven to ten times the effort to restore the reputation » (Herbig & Milewicz, 1993). Indeed, when companies and brands have to face what we can call a 'Bad Buzz', it could strongly impact the reputation and the image of the firm.

To conclude on brand reputation, the literature state on different opinion about it. First, Herbig & Milewicz (1993; 1994) argue that « companies or brand consistency can by itself shape a positive brand reputation », whereas Amis (2003) suggest that « production of quality outputs will make the brand have a good reputation ». Moreover, Fombrun (1996) say that « only the media exposure and media report are proved to be the most influential reputation builder ».

Finally, the literature is clear about one important thing, enhance reputation and brand image is hard and it may take some time to build it up, also, brand reputation can be lost or highly damaged very quickly, for instance, by a 'bad buzz' or even some unhappy customers that have many followers on social media. Therefore, firms and brand must follow carefully their own image and reputation, aim to keep it high, or at least avoid it to fall down.

2. 10. Brand Attachment

Works on attachment did not start a couple a days ago by researchers or marketers that would enhance hardly their brand power. Indeed, « the work on attachment theory started in the realm of dyadic relationships between infants and their caregivers » (Bowlby, 1969). Bowlby suggest that attachment can be defined as an « emotion-laden target-specific bond between a person and a specific object ». His research argue that « inadequate and inconsistent maternal care during early childhood can effect abilities throughout life » (Bowlby, 1969). Those research on attachment were the first to be realized, and were focusing more on person-person relationship than on person-object relation.

« Attachments can extend beyond the person-person relationship context » (Belk, 1988). Indeed, « researchers from different side suggests that customers can develop attachment to gifts » (Mick & DeMoss, 1990), « places of residence » (Hill & Stamey, 1990), « brands » (Schouten & McAlexander, 1995) and « other type of special favourite objects » (Wallendorf & Arnould, 1988). « The collection of characteristics, traits, and memberships that cognitively represent an individual in memory is generally described as the self-concept » (Greenwald & Pratkanis, 1984). As seen for brand reputation, (Greenwald & Pratkanis, 1984) says that « customers can be attached to a brand in a way that the brand gives strong feelings to its customers, like being part of his daily life, thus being an extension of the self ». « Brand attachment is characterised by strong linkage or connectedness between the brand and the self » (Schultz et al., 1989). « The brand's connection to one's self, one's identity, or self-concept is central to the emotional attachment construct » (Mikulincer et al., 2001).

Nowadays, there are more and more brands and companies that deliver almost the same product, so, for customer, being in the middle of all of those products that seem quite similar in all aspects is a bit headache and hard choice to make. Hence, creating emotional brand attachment is a key success for all of these companies, brands and firms. « This is motivated by the finding that such connections lead to higher level of consumer loyalty, which increase

company financial performance » (Park et al., 2010). A good example of brand attachment used by firms is the cosmetic market. Indeed, in many cosmetic companies and brands, they are communicating to customer to use their product, it aim to make users more attractive and good-looking and bring them closer to build an 'Ideal Self', in other words an ideal vision of themselves. The 'ideal self' can be seen as something customers want to be, but it is not what they really are, in other word the 'Actual Self', how customer actually see themselves. « The 'Actual Self' seems to be growing in importance to consumers looking for reality and authenticity in marketing messages » (Gilmore & Pine, 2007). Therefore, both strategies are able to work, depending on what situation they are exposed.

Customers that are emotionally attached to a brand or a product, can more likely have positive behaviour toward this company. However, those positive behaviours toward the brand reflects a strong attachment but have different construct. « A strong attachment needs time to be developed and it is often built on interactions between the person and the object of attachment » (Baldwin et al., 1996). Those interactions are making sense for the customers and attract strong emotions toward the object of attachment. Behaviours are reflecting the evaluation that customer makes about a product. Those reactions can be developed even if the customer doesn't have any direct contact with the product. Hence, customer can have positive behaviour toward a product or a brand without having any contact with it. Moreover, customers can have positive behaviour toward numerous random products, even toward product that are not really relevant and important in their daily life, whereas, (Ball & Tasaki, 1992) argue that « customers can only be attached to few number of products that have strong and deep connection with them ». « Strong bonds underlying a large set of patterns and emotionally charged memories that bind the object itself » (Holmes, 2000). « Individuals strongly emotionally attached to an object have specifics behaviours as maintaining proximity or separation anxiety » (Bowlby, 1979). « Behavioural symptoms are not specific to positive attitudes whose the impact depends mostly on situation and context » (Sheppard, Hartwick, & Warshaw, 1988). « Customer strongly attached to a product or a person are more likely to be strongly committed to this relationship » (Johnson & Rustbelt, 1989). This is not necessary happening for positive behaviours, for instance, it is not frequent that a customer which have only positive behaviour toward a brand want to stay really committed to it, or have the goodwill to pay more to obtain it, if another more attractive choice can be made. Moreover, strong emotional attachment is defined by the feelings that the product cannot be replaced. So, customer which have positive behaviour toward a product would replace it if another one

more attractive can be found. A customer emotionally attached to a brand is generally satisfied by this one, hence, this satisfaction can provide a first step to this emotional attachment. However, attachment and satisfaction are not similar, if two customers are satisfied by a brand, both at the same level, their feelings with the brand can still be different. Satisfaction does not impact behaviours as proximity or separation anxiety. Moreover, if satisfaction can appear immediately after customer bought and consume the product, attachment needs time to be developed and needs numerous interactions with the brand or product. « Satisfaction is an evaluative judgement, and therefore different from attachment construct, emotionally charged » (Mano & Oliver, 1993). Also, attachment can be compared to commitment on their concept. « Commitment is a state of alertness that influences the allocation of cognitive resources to a consumer item, decision or action » (Park & Mittal, 1985). Attachment goes beyond those decision or action, because it often goes alone without being controlled by customer. Then, attachment to brand is more related to emotion feelings, whereas commitment concept is more linked to cognition. Therefore, customer attachment to a brand can be correlated to positive behaviours.

So brand attachment is seen by the literature as emotional feelings for customers towards a brand or a product. Those 'feelings' are really important for companies, because they could become stronger to create truly loyalty and passion for customers to the brand. (Loureiro, Ruediger, & Demetris, 2012) show in their research on the automobile industry that « brand attachment leads to trust, commitment, loyalty and brand love ». Moreover, « attachment is one of the salient elements of brand love » (Batra et al., 2012). So, those research tends to suggests that in order to build brand love, brand attachment is required, whereas, (Fournier, 1998) argue that « brand loyalty and brand attachment are different in terms of affective components such as passion and self-connection ».

Brand attachment is definitely a deep field of research. Numerous researchers have published studies on attachment, from person-person attachment to person-object attachment. It result form those studies that an individual, customer, can be truly attached to a brand or its product. Attachment leads to strong commitment and may lead to love and passion when the attachment is very high. Hence, « that make customers truly loyal and give him passion for the brand » (Loureiro, Ruediger, & Demetris, 2012). To conclude, attachment is very important for firms and companies which want their customers more involved into their brand or product, aim to better answer to their expectations, as well as to make them more loyal than

ever before. By this way brands ensure the good health of their business against their competitors.

2. 11. Brand Loyalty & Commitment

Todays' marketing strategies for brands are mainly focus on relationship and value creation that directly link to brand loyalty. Thus, commitment variable is analysed very carefully because it leads straight to brand loyalty. Moreover, brand commitment construct consist of both affective and continuance commitment drivers to be complete.

2. 11. 1. Affective & Continuance Commitment

« Commitment in studies of marketing relationship is usually operationalised as effective commitment, a well-studied construct in relationship marketing » (Fullerton, 2003; Gilliland & Bello, 2002). « Affective commitment is rooted in shared values, identification, and attachment » (Bansal et al., 2004; Fullerton, 2003; Gruen et al., 2000). In fact, customers trust and like doing business with partner when they are affectively committed to that partner. « In business-to-business situations relational social norms are the essence of trust-based affective commitment » (Joshi & Anrold, 1997). « In a consumer services environment, trust-and friendship-based relationship that exists between a hairstylist and a client is a prototypical example of an affective commitment-based marketing relationship » (Price & Anrould, 1999). Indeed, in those type of business, the affective variable is even more mandatory if the company want to keep their clients enjoying the overall services. To conclude on affective commitment, it is the emotional part of the commitment, the one controlled and led by the quality of the relationship the customer have with a specific brand.

In another hand, continuance commitment form the other driver construct of commitment. « In business-to-business environment, contractual arrangements are one of the main mechanisms of maintaining relationships » (Anderson & Weitz, 1992). In fact, a contract between two or more partners leads to limit the alternatives available for anyone, by this way ensure a long contract relationship. Continuance commitment is also a feature of consumer-brand relationships. « Consumer regularly adopt brands because they find that the personality of the brand fits their own self-construed personality » (Aaker, 1997). « Brands are also rich with cultural meaning that becomes attached to the consumer through the acts of use and

consumption » (Holt, 2003). Hence, if customer decide to change its habits and want to try another brand, both the personality fit and cultural fit benefits are lost. « The potential loss of something that has value to the consumer is a key feature of continuance commitment in a marketing relationship » (Fullerton, 2003). Finally, to end on commitment construct, literature argues that both continuance and affective commitment are the main drivers to brand commitment variable, and thus leads also to brand loyalty.

2. 11. 2. Brand Loyalty

« The concept of brand loyalty has been pointed as an important construct in the marketing literature for at least four decades » (Howard and Sheth, 1969), and « most researchers agree that brand loyalty can create benefits such as reduced marketing costs » (Chaudhuri and Holbrook, 2001), « positive word of mouth » (Sutikno, 2011), « business profitability » (Kabiraj and Shanmugan, 2011), « increased market share » (Gounaris and Stathakopoulos, 2004) and a « competitive advantage in the market » (Iglesias et al, 2011). Those positive outputs of brand loyalty mentioned above clearly show us how important can be the impact of loyalty onto brands. In this way (Khan and Mahmood, 2012) suggested a definition that reflected these positive outputs by stating « brand loyalty can be defined as the customer's unconditional commitment and a strong relationship with the brand which is not likely to be affected under a normal circumstances ». Through literature review, « most researchers and others marketing partitioners agrees that brand loyalty can be either true or spurious » (Iglesias et al., 2011). « Spurious loyalty is driven by situational circumstances such as price and convenience » (Iglesias et al., 2011), « while true brand loyalty is driven by some indicators of previous psychological and affective attachment to the brand by the customer » (Lin, 2010).

3. Methodology

3. 1. Research Context

This section intends to expose the context and situation of the car market nowadays. Indeed, the main purpose of this study is to better understand the link between customers and car brands. Thus, it is important to know how the car market is moving and evolving, by knowing what they really provide to customers about range of products or technologies. Moreover, those information are also important in a way to better understand and evaluate all the output

of the survey. All information provided here come from official websites and annual reports of each brands.

« In 2005, more than 890 million of vehicle was in circulation worldwide, then for 2007 the billion milestone got reached » (OICA.net). « From 1955 to 2005 the multiplication of cars had been three time higher than the population number » (OICA.net). « Still, today USA stays first country in the world with the highest numbers of vehicle in circulation with 844 vehicles for 1000 inhabitants, while the average number worldwide is only 180 vehicles for 1000 inhabitants » (OICA.net). « For the year 2013, 370 million vehicles was in circulation in Europe region » (OICA.net). « The United Nation predict that the number of vehicle in circulation worldwide could reach the 3 billion milestone by 2050 » (OICA.net). All this may steer us to say that the automotive market still has a long way ahead, mainly in rich regions as USA or Europe, but obviously Asia will be the next sales boom for automotive manufacturers, as its population and incomes are rising very fast. So, definitely there is a future for car brands as Tesla, Volvo or Toyota.

« In 2012, more than 81 million of vehicles were produced and sold worldwide, for 2013, it was more than 84 million » (OICA.net). « Since 2011, China is now the first car manufacturer's country worldwide with 20.9 million vehicle produced for 2013, followed by United States with 10.9 million vehicles produced, Germany with 5.6 million and South Korea with 4.5 million » (OICA.net). Even if China is actually leading the automotive production, countries as United States or Germany are still big enough to compete with all Asian's manufacturers.

Tesla manufacturer got attention from customers following the production of their first fully electric sport car: The Tesla Roadster. Then, « Tesla company released the Model S, their full electric Sedan vehicle, which sales passed 90.000 units by October 2015 » (hybridcars.com). On the 31st March, 2016, Tesla company unveiled its last car creation, the Model III, full electric engine as their old sister, but for only 35.000$. « This make the Tesla Model III the most affordable full electric car of the market, up to now, and should be available on sales late 2017 » (latimes.com).

Initially founded in 1927 in Sweden, Volvo brand has a long story on automotive market. Now owned by Geely Group China since 2010 (marketwatch.com), « Volvo brand has

approximately 2.300 local dealers from around 100 national sales companies worldwide » (Volvo Car Group Financial Report, 2013). « Volvo's biggest market are the United States, then China, Sweden, China and Belgium. For 2013, China nearly replace United States as Volvo 's largest market, with 61.146 units sold, an increase of 45.6% compared to 2012, mainly driven by new product and expansion of the Chinese dealer network » (Volvo Car Group Financial Report, 2013). The year 2015 was a big update for Volvo brand, mainly because the released the new XC90, new design that will inspire the whole range of product, as they showed us their new lines for the S90 Sedan and future V90 Estate Wagon model. Definitely, « Volvo is becoming a serious premium car manufacturer competitor in the market » (autoweek.com).

Toyota Motor Corporation was created in 1937 in Japan, with more than 338.000 employees worldwide, « Toyota is the 11th largest company in the world in terms of revenue, and was leading the market in terms of production in 2012, ahead from Volkswagen Group and General Motors » (toyota-global.com). In July 2015, Toyota reported the production of its 200-millionth vehicle. According to (OICA.net), Toyota produced more than 10 million vehicle for the year 2013. Well-known as well for their famous Hybrid Prius car, Toyota is a pioneer in electric & hybrid vehicle for mass production, range of products that the company is still leading today. « The Prius range from Toyota is the world's top selling hybrid nameplate with almost 5.7 million units sold worldwide as for April 2016 » (greencarcongress.com).

In sum, we can say that despite of the numerous manufacturers worldwide, market shares can still be earned by companies. The numbers of vehicles in circulation is still increasing, and new technologies allow manufacturers to always innovate more, in terms of engines, comfort or safety. Customers expectations keep evolving and need to be met by manufacturers.

3. 2. Proposed structural model and hypotheses

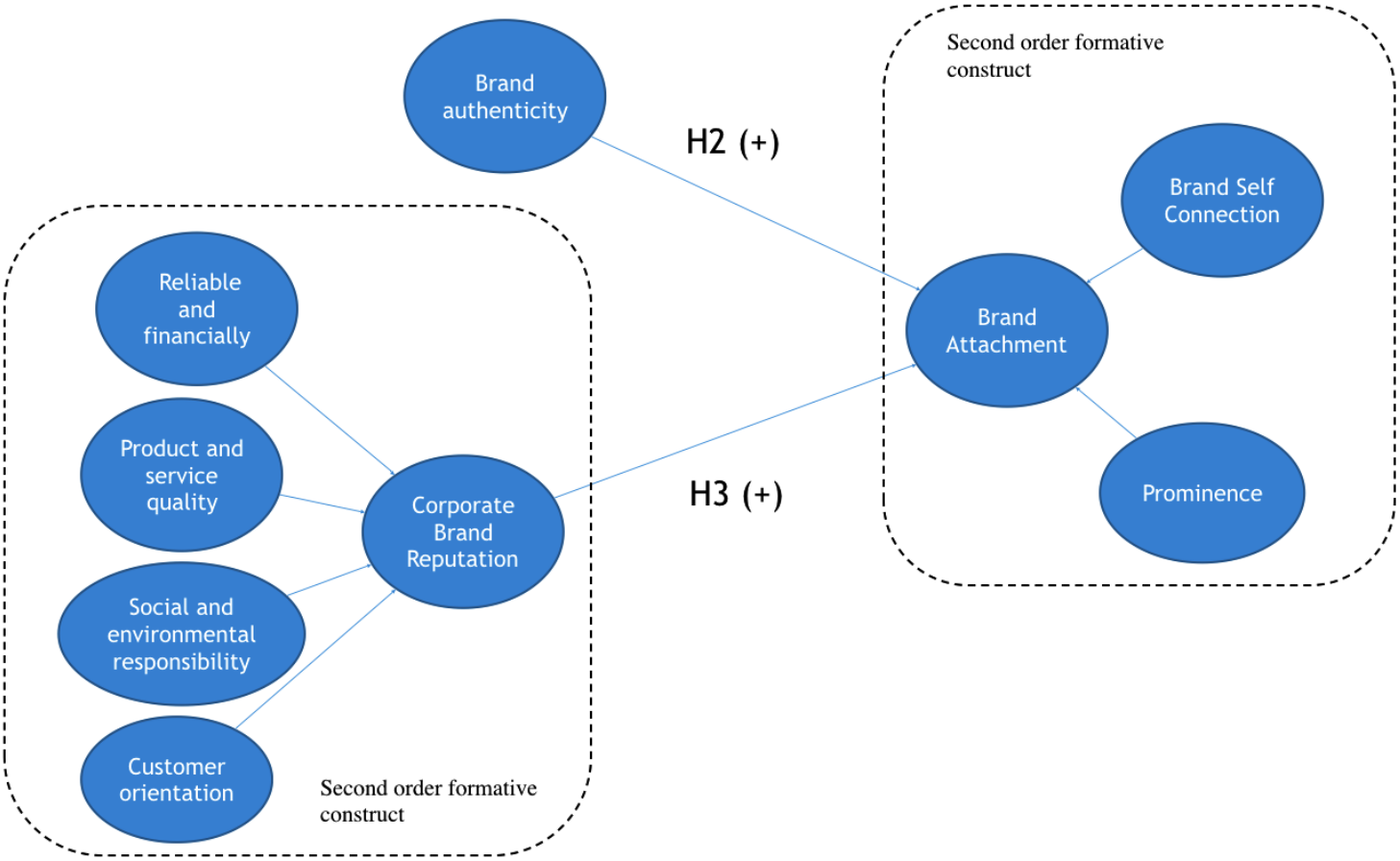
In order to build up a good analyse of the enquiry, some conceptual models and constructs from previous published studies were analysed. To fit with the objectives of this dissertation, please see in introduction chapter, constructs were adapted to the study. During the process of literature review and analysing previous studies, a gap was found, that is, as far as we know, previous studies did not attempt to explore the effect of both brand authenticity and brand reputation on brand attachment.

First, C. Whan Park, et al. (2010) focuses on brand attachment, aim to compare brand-self connection and the prominence of brand thoughts and feelings by developing a scale designed to map the conceptual properties of the brand attachment construct, while in this study brand attachment is used as a connection to brand authenticity and reputation. Following 10 items, 5 each for brand-self connection and prominence components, the respondent has to rate them on an 11 points scale, from 0 ”completely disagree” to 10 “completely agree”. In the survey only 6 points scale were used.

Then, other models were used for the study, as the ‘consumer - brand relationship’ from Walsh & Beatty (2007) which focus on 4 main components; product and service quality perceived, customer orientation, employees’ welcome & treatment to customer, reliability of the company to customer, or social & environmental responsibility. The model of Newman and Dhar (2014), which focus on brand authenticity. The model of Park et al. (2010) , which focus mainly on brand attachment throught two main way ; prominence and brand-self connection. The model from Hennig-Thurau et al. (2002) which focus on commitment toward a company, and the one from Arnold and Reynolds (2003) which focus on loyalty were also used. Finally the model from Groth (2005) which is based mainly on customer behaviour, whether he help other customers or the company. Thus, the previous studies and constructs were the main inspiration for the elaboration of this inquiry, then, they all were adapted to the different objectives of the study.

In order to analyse the survey's answers in the best way, a theoretical model has been created. With a central point on brand attachment, the model aim to evaluate whether or not corporate brand reputation and brand attachment lead to brand authenticity. Corporate brand reputation variable is divided into four main parts which include reliable and financially variable, product and service quality, social and environmental responsibility and customer orientation. The second construct is brand attachment, divided into two main stage, brand self-connection and prominence.

Figure 8 - Proposed structural Model



Author Elaboration

3. 2. 1. Hypotheses

In what concerns to the hypotheses and based on literature review, the following hypotheses are proposed in order to compare among brands:

- H1: There are not significant differences in the latent variables among the three brands.
- H1a: There are not significant differences in commitment among the three brands.
- H1b: There are not significant differences in loyalty among the three brands
- H1c: There are not significant differences in customer citizenship behavior (helping other customers) among the three brands
- H1d: There are not significant differences in customer citizenship behavior (helping the company) among the three brands

Regarding literature review and considering the proposed model for this study, perception of authenticity, in other words, the belief that products from the original factory, with quality features, believed as truth, genuine, real, verifying that the product meets certain quality standards associated with the brand are in some way “more authentic” than products made elsewhere, without the knowledge of the brand and company (e.g., Belk & Costa, 1998; Beverland, 2005, 2006; Beverland & Farrelly, 2010; Deshpandé, 2010; Grayson & Martinec, 2004; Peterson, 2005; Newman & Dhar, 2014). In this vein, perceptions of authenticity will tend to generate more attachment towards the brand, thus:

- H2: Brand authenticity has a positive effect on the brand attachment
- H2a: Brand authenticity has a positive effect on the brand attachment in the case of Tesla
- H2b: Brand authenticity has a positive effect on the brand attachment in the case of Toyota
- H2c: Brand authenticity has a positive effect on the brand attachment in the case of Volvo

Based on previous considerations on literature review, corporate brand reputation has a positive impact on consumer-brand relationship, that is, tend to enhance commitment, trust and loyalty, relationship variables. A company's good reputation also is a signal of sound company behaviour towards market transactions overall, such that a better reputation may engenders greater attachment towards a brand. « A firm's good reputation can reduce customers' perceived risk and motivate them to do business with the company» (Fombrun &

Shanley, 1990; Spence, 1973; Andreassen & Lindestad, 1998; Barich & Kotler, 1991; Walsh et al., 2009). Therefore:

- H3: Corporate brand reputation has a positive effect on the brand attachment
- H3a: Corporate brand reputation has a positive effect on the brand attachment in the case of Tesla
- H3b: Corporate brand reputation has a positive effect on the brand attachment in the case of Toyota
- H3c: Corporate brand reputation has a positive effect on the brand attachment in the case of Volvo

3. 3. Questionnaire

Following the theoretical model seen above, as well as the theoretical background, a first questionnaire draft has been created. The questionnaire was developed in English mainly because it would be spread through international online communities. Indeed, the target of the survey is anyone that own a Toyota, Volvo or Tesla car, or at least people that are willing to buy those car brands, so, English was definitely the easiest way to speak to everyone. Then, after some trial based on a pre-test with 9 consumers in brand communities, the final version of the questionnaire has been developed. So, the official questionnaire has been spread online through brand communities of the three brand. To reach that, we have contacted the webmaster of the brand communities and asked permission to spread the enquiry among members. This way assure that participant have the knowledge and experience about the brands.

The questionnaire was composed by three main parts; the first part consist of general opinion and thoughts about the brand by following precise theoretical model (See above). Respondents had to rate their feelings about the 9 questions asked toward a 6 points Likert scale answers, 1 for completely disagree to 6 for completely agree.

The second part has been created for participants owners, or people that are willing to buy a Toyota, Volvo or Tesla car, thus, aim to better understand the relationship between customers and brands. Also, made following the same precise theoretical model, respondents had to rate their feelings about the 25 questions asked on the same 6 points Likert scale. The third and

final part of the questionnaire is the data sheet, which is related to the profile of the respondents.

The elaboration of the questionnaire has been done using the GOOGLE DOCS software, free using and online availability, it is actually highly useful for this kind of project. Moreover, the fact that GOOGLE DOCS software is using online channel make spreading and collecting data easier than paper-based questionnaire, and thus it make saving great amount of paper, time and money. To spread the questionnaire online, it had to be verified and allowed by webmasters of different car brands communities that author has contacted by mail before and asked for the study, anonymously.

The First questionnaire published through online community was on February 10th of 2016, by a Tesla community webmaster. Then, more than 200 emails after, all data expected was collected, on 9th April 2016. Tesla's enquiry was the first to reached more than 100 answers, then followed by Volvo and finally Toyota. The choice has been made to spread the survey online firstly because the car brands are international and are doing business in many countries worldwide, and finally, brands communities websites gather people that really care about the topic of the community they follow, they are committed about it, thus spread an enquiry through those online communities allow a better quality of respondents attention.

3. 4. Sample profile

For this disseration, the total data collected reached the number of 327 respondents worldwide. To get in touch with potential respondents, the questionnaire has been spread through online community dedicated to ranges or products from Tesla, Volvo or Toyota car brand. When we look at the (**Table 2, Table 3, Table 4, Table 5, and Table 6**) we can analyse that a majority of respondents are Male, for **93%,** aged around **30** to **40** for **23.5%** and **40** to **50** for **37.6%**. Regarding the household situation, **63%** of the respondents are married. Concerning the job situation, **47.1%** are employed for wages, while **38.5%** are actually self-employed. Finally, about the world region where respondents live, **81%** come from Europe and **15.9%** from North America.

This means that the survey was completely filled by respondents that are owners or potential buyers of Tesla, Volvo or Toyota car, mainly because of their money capabilities as they all

have jobs, but as well as the average age of the respondents, in fact, **30** to **50** years old, is the period of household growing, if child birth come, or even career success. Moreover, the majority of respondents come from the richest part of the world, Europe and North America, obviously still the main markets for premium car brands and also place where people can afford it. So, definitely a majority of respondents is part of the main target of those car manufacturers, people with money to spend and families that want to enjoy driving their car safely. Below, Sample Profiles Tables are showing us how and by who the survey has been filled.

Table 2 - Tesla/Volvo/Toyota - Sample Profile - I

GENDER	FREQUENCY	PERCENT
MALE	304	93 %
FEMALE	23	7 %
TOTAL	327	100 %

Author Elaboration

Table 3 - Tesla/Volvo/Toyota - Sample Profile - II

AGE	FREQUENCY	PERCENT
-20	11	3,4 %
20/30	51	15,6 %
30/40	77	23,5 %
40/50	123	37,6 %
50/60	48	14,7 %
+60	17	5,2 %
TOTAL	327	100 %

Author Elaboration

Table 4 - Tesla/Volvo/Toyota - Sample Profile - III

HOUSEHOLD SITUATION	FREQUENCY	PERCENT
DIVORCED	18	5,5 %
MARRIED	206	63 %
SEPARATE	12	3,7 %
SINGLE	89	27,2 %
WIDOWED	2	0,6
TOTAL	327	100 %

Author Elaboration

Table 5 - Tesla/Volvo/Toyota - Sample Profile - IV

JOB SITUATION	FREQUENCY	PERCENT
EMPLOYED	154	47,1 %
RETIRED	20	6,1 %
SELF-EMPLOYED	126	38,5 %
STUDENT	26	8 %
UNEMPLOYED	1	0,3 %
TOTAL	327	100 %

Author Elaboration

Table 6 - Tesla/Volvo/Toyota - Sample Profile - V

LIVING LOCATION	FREQUENCY	PERCENT
ASIA	7	2,1 %
EUROPE	265	81 %
NORTH AMERICA	52	15,9 %
ASIA, NORTH. AM.	1	0,3 %
SOUTH SEA ISLAND	2	0,6 %
TOTAL	327	100 %

Author Elaboration

3. 5. Statistics Techniques

Regarding data treatment, SPSS software has been chosen to conduct the task. The first step was to analyse variables under study across descriptive statistics, focusing on mean, median and standard deviation. Also, Cronbach's Alpha tests was used aim to measure the 'reliability' of the construct, as well as, Independent Sample-t-test, aim to compare the means between two unrelated group on the same continuous, dependant variable.

Since the measurement scale of the study has been made by using 6 point likert scale, it is important to notify that ordinal variables, or likert scale variables, are usually classified as quantitative answer. However, it is usual to treat the numeric numbers associated with a likert scale. « The ordinal scale treated as a quantitative scale is usually named as a rating scale » (Hill & Hill, 2000).

Moreover, another data treatment techniques was used to test the hypotheses of the study, the partial least squares (PLS). « This technique is based on an iterative combination of principal component analysis and regression to explain the variance of the contracts model » (Chin, 1998). « The PLS technique allows the researchers to avoid biased and inconsistent parameter estimates, and it is an effective analytical tool to test interactions by reducing Type II errors and allowing analysis using small sample » (Chin, Marcolin, & Newsted, 2003). In order to evaluate the adequacy of the measures at the first-order construct level, item reliability is assessed by examining the loadings of the measures on their corresponding construct. « Item loadings of scales measuring reflective constructs should be 0.707 or more, which indicates that over 50% of the variance in the observed variable is explained by the construct » (Wetzels, Odekerken-Schroder, & Van Open, 2009).

Additionally, Average Variance Extracted (AVE) method was conducted, aim to indicate if most of the variance of each indicator is explained by its own construct, in other word AVE score needs to be above 0.5 value. Beside of AVE, composite reliability was perform as well aim to know the reliability of the construct, meaning that the construct is considered as reliable if values are above 0.8.

Finally, The Independent Sample t-test method was conducted. Independent t-test is a parametric test that aim to compare the means of two independent groups in order to determine whether there is statistical evidence that the associated population means are

significantly different. To compare brand between each others, Sig.(2-tailed) variables analysis has been conducted for each question of the survey in order to understand on what are the difference between the three brand's customers thought. In fact, the Sig.(2-tailed) variable needs to be higher than 0.05 value to be considered as non-significant difference, otherwise with values lower than 0.05 the difference is considered as significant between the two groups under analysis.

4. Results and Findings

4. 1. Descriptives Statistics

4. 1. 1. Reliability and Finance of the company

Concerning the first item of the questionnaire, Reliability & Finance, respondents had to evaluate their feelings about three questions on a Likert's 6 points scale answer. The first question, **RF1**, treat about the performance of the car manufacturer compare to all competitors on the market. The second, **RF2**, speak about the capacity of the car manufacturer to recognize and take advantage of its market opportunities. Finally, the third one, **RF3**, refers to the number of potential customer for future growth.

Table 7 - Tesla - Reliable & Finance

ITEM	MEAN	MEDIAN	STD. DEVIATION	CRONBACH ALPHA
RF1	5,5	6	0,872	
RF2	5,1	5	1,025	0,782
RF3	5,5	6	0,852	

Author Elaboration

Table 8 - Volvo - Reliable & Finance

ITEM	MEAN	MEDIAN	STD. DEVIATION	CRONBACH ALPHA
RF1	5,3	5	0,907	
RF2	5,1	5	0,961	0,806
RF3	5,3	6	0,837	

Author Elaboration

Table 9 - Toyota - Reliable & Finance

ITEM	MEAN	MEDIAN	STD. DEVIATION	CRONBACH ALPHA
RF1	5,2	5	0,788	
RF2	5,1	5	0,902	0,800
RF3	5,3	5	0,771	

Author Elaboration

From the (**Table 7, Table 8 and Table 9**), we can analyse that some values are close, global means on all brands are clearly high, from **5.1** to **5.5** and median is high as well from **5** to **6** out of **6**. Means that respondents globally feels that Tesla, Volvo and Toyota are good at recognising and taking advantages of market opportunities. Also, that respondents globally feels that all of the three brands are kind of outperform competitors on their market. And finally majority respondents feels that those brands got strong prospects for future growth. Then, about the standard deviation, we can read that **RF2** got the higher score for all brands, with **1.025**, **0.961** and **0.902.** Highest value for Tesla and lowest for Toyota, which means that the extent of answers if less important for Toyota than for Tesla. About **RF1**, Volvo's rate is higher than others, **0.907**, while **0.872** for Tesla and **0.788** for Toyota. For **RF3**, Tesla's rate is higher with **0.852**, while Volvo is **0.837** and Toyota **0.771**.

Finally, about the Cronbach alpha developed, the results are high, means that the construct and the scale are reliable. Volvo has the highest Cronbach Alpha with **0.806**, followed by Toyota, **0.800** and Tesla **0.782**. Globally the results are fine on this first section, Cronbach alpha is between **0.700** and **0.900**, which are the values we need to be close to, aim to know if the internal consistency of the construct is good enough. Therefore, we can rely on the reliability of the construct and scale, and moreover we can say that respondents feels that Tesla, Volvo and Toyota are reliable, strong competitors and thus have strong prospects for future growth.

4. 1. 2. Products and Services quality perceived by customers

Regarding the second item of the questionnaire, products and quality perceived by customers all along the relationship, respondents also had to evaluate their feelings about 3 questions on a Likert's 6 points scale answer. Question **PS1** is about the overall quality of products and services provides by Tesla, Volvo and Toyota. **PS2** focus on the global relationship between car brands and their customer. Finally, **PS3** is about all innovations made and futures ones, on product or services to meet the customer expectations.

Table 10 - Tesla - Products & Services

ITEM	MEAN	MEDIAN	STD. DEVIATION	CRONBACH ALPHA
PS1	5,1	5	1,044	0,832
PS2	5,1	5	1,220	
PS3	5,3	6	0,926	

Author Elaboration

Table 11 - Volvo - Products & Services

ITEM	MEAN	MEDIAN	STD. DEVIATION	CRONBACH ALPHA
PS1	5,2	5	0,947	0,850
PS2	5,1	6	1,150	
PS3	5,2	5	0,907	

Author Elaboration

Table 12 - Toyota - Products & Services

ITEM	MEAN	MEDIAN	STD. DEVIATION	CRONBACH ALPHA
PS1	5,1	5	0,858	0,805
PS2	5,3	6	1,007	
PS3	5,2	5	0,757	

Author Elaboration

From (**Table 10, Table 11 and Table 12**) we can notice that mean values are close, from **5.1** to **5.3,** as well as median, from **5** to **6**, which means that respondents from all brands feels that the quality of products and services is very high. Also this means that respondents from all inquiries feel globally that their brand does everything it can to ensure a good overall service quality all along the relationship. Finally, respondents from all surveys considering that the brand is constantly innovating to meet the new customer expectations and desires. Standard deviation values are from **0.757** to **1.220,** which can lead us to say that **PS3 Toyota** standard deviation **0.757** mean that a majority of respondents' answers are close to the mean and median, while **PS2 Tesla** standard deviation **1.220** mean that respondents' answers are more far from the mean and median.

Finally, about the Cronbach Alpha, Volvo got the highest value with **0.850**, followed by Tesla, **0.832**, and then Toyota, **0.805**, which can lead us to say that the "reliability" of the construct seems good because values are between **0.700** and **0.900**. Thus, on the item Product & services, Cronbach Alpha values show us that the construct seems really reliable for all manufacturers.

4. 1. 3. Social and Environmental commitment of the company

The third item present on the questionnaire is Social & Environmental. This section aim to know the real customers' feelings toward Tesla, Volvo or Toyota social & environmental commitment. Hence, **SE1**, the first question focus on the engagement of the company to reduce its own impact on global warming, and can it be qualified as 'Eco-Friendly' company. Then, **SE2** aim to figure out if customers feels that those car brands could be able to reduce their own profit to ensure a clean environment. Finally, **SE3** is about the support of manufacturer to good cause, as Organisation No Governmental.

Table 13 - Tesla - Social & Environmental

ITEM	MEAN	MEDIAN	STD. DEVIATION	CRONBACH ALPHA
SE1	5,4	6	0,790	0,762
SE2	4,5	5	1,490	
SE3	4,6	5	1,302	

Author Elaboration

Table 14 - Volvo - Social & Environmental

ITEM	MEAN	MEDIAN	STD. DEVIATION	CRONBACH ALPHA
SE1	4,9	5	1,160	0,797
SE2	4,3	4	1,336	
SE3	4,0	4	1,479	

Author Elaboration

Table 15 - Toyota - Social & Environmental

ITEM	MEAN	MEDIAN	STD. DEVIATION	CRONBACH ALPHA
SE1	4,8	5	1,135	0,768
SE2	4,2	4	1,199	
SE3	3,9	4	1,474	

Author Elaboration

Compared to 'Reliable & Finance' and 'Products & Services' findings, 'Social & Environmental' ones are quite different. First, the overall mean got higher than before, from **3.9** to **5.4**, which mean that respondents has more different opinion on this part than previous ones. Also, median is from **4** to **6**, again higher than previous item section Products & Services or Reliable & Finance.

SE1 row in (**Table 13, Table 14 and Table 15**) tables can lead us to say that Tesla's respondents' feelings are less extended towards the 'Eco-Friendly' involvement of the brand with a standard deviation equal to **0.790**, compared to Volvo one, **1.160** and Toyota **1.135**. Meaning that Volvo and Toyota's respondents' feelings are more spread from the mean than Tesla's one. For **SE2**, all brands are quite similar in standard deviation results, Tesla is equal to **1.490**, Volvo **1.336**, and Toyota **1.199**, which mean that respondents feelings are a bit different toward the ability of the brand to reduce its own profit to ensure a clean environment, hence, a lot of respondents' feelings rates are quite far from the mean. Finally, for **SE3**, same results can be read, standard deviation are high for all manufacturers. Tesla is equal to **1.302**, Volvo **1.479**, and Toyota, **1.474**.

Cronbach alpha values are still good enough and very close to each other, **0.762** for Tesla, **0.797** for Volvo, and **0.768** for Toyota, which mean that the internal consistency of the construct is still acceptable, and thus we can rely on it.

4. 1. 4. Customer Orientation

The fourth part aim to focus on the Customer Orientation, precisely on what customer really feels about the overall employees team work. The first question, **CO1**, aim to know if customers are well treated, welcomed and received by brands team. **CO2** focus more on the relationship quality between brands employees team and customer. Then, **CO3**, aim to know if customers are being treated fairly when they have to deal with brands' team.

Table 16 - Tesla - Customer Orientation

ITEM	MEAN	MEDIAN	STD. DEVIATION	CRONBACH ALPHA
CO1	5,4	6	0,940	0,927
CO2	5,2	6	1,084	
CO3	5,4	6	0,940	

Author Elaboration

Table 17 - Volvo - Customer Orientation

ITEM	MEAN	MEDIAN	STD. DEVIATION	CRONBACH ALPHA
CO1	5,3	6	0,891	0,942
CO2	5,2	6	1,040	
CO3	5,3	6	0,916	

Author Elaboration

Table 18 - Toyota - Customer Orientation

ITEM	MEAN	MEDIAN	STD. DEVIATION	CRONBACH ALPHA
CO1	5,4	6	0,720	0,913
CO2	5,2	6	1,008	
CO3	5,3	6	0,767	

Author Elaboration

Regarding (**Table 16, Table 17 and Table 18**), we can read that mean values are very close again, from **5.2** to **5.4** and median is **6** for all. Meaning that for all manufacturers, respondents' feelings are pretty high. Thus, for **CO1,** respondents feel globally well welcomed and treated by brands employees. About **CO2**, respondents seems to feel satisfied by the implication of the brands' staff, to the concern of their customers. Finally for **CO3**, respondents feel globally well treated when they have to deal with brands staff.

Concerning standard deviation values, they go from **0.720** to **1.084**, which mean that a majority of Toyota **CO1 (0.720)** respondents' feelings rates are more close to the Mean than Tesla **CO2 (1.084)**, which seems obviously more far from the mean.

Finally, about the Cronbach Alpha value, the reliability of the construct seems very good. Tesla's value is equal to **0.927**, Volvo, **0.942**, and Toyota **0.913**. Meaning that we can rely on the internal consistency because they are very close to **1**, which is considered as high.

4. 1. 5. Commitment to the company

The fifth section of aim to evaluate the level of commitment from customer to brands. The first question, **C1**, focus on the commitment of the customer to the brand, to what extent they feel committed to it. **C2** aim to understand if the customer relationship they have with the brand mean a lot to them. Finally, **C3** is about the real affection customers can have to the brand, if the company would disappear does it would be a loss for them or not.

Table 19 - Tesla - Commitment

ITEM	MEAN	MEDIAN	STD. DEVIATION	CRONBACH ALPHA
C1	5,3	6	1,140	
C2	4,5	5	1,199	0,880
C3	5,5	6	0,926	

Author Elaboration

Table 20 - Volvo - Commitment

ITEM	MEAN	MEDIAN	STD. DEVIATION	CRONBACH ALPHA
C1	5,0	5	1,158	
C2	4,6	5	1,257	0,919
C3	5,0	5	1,224	

Author Elaboration

Table 21 - Toyota - Commitment

ITEM	MEAN	MEDIAN	STD. DEVIATION	CRONBACH ALPHA
C1	4,6	5	1,064	
C2	4,3	4	1,181	0,910
C3	4,6	5	1,345	

Author Elaboration

Regarding (**Table 19, Table 20, and Table 21**) we can read that mean values goes from **4.3** to **5.5**, while median values are from **4** to **6**. Hence, Toyota respondents seem globally to be a little bit less committed to the brand than Volvo and Tesla's customers. Overall mean are still high though, meaning that respondents from all enquiries feel globally that their relationship with the brand mean something for them, and also, if the brand they like would disappear, it would be a loss for them.

According to standard deviation values which are from **0.926** to **1.345**, wen can say that the extent of answers is globally high, thus, respondents feelings rates are a bit spread from the mean value, as we could see on other section's tables.
Finally, Cronbach Alpha values are from **0.880** to **0.919**, meaning that the respondents' feelings are homogeneous on commitment section.

4. 1. 6. Loyalty to the company

The sixth part of descriptive analysis focus on loyalty. The first question **L1**, aim to evaluate the level of customer's loyalty through their actions and behaviours. Then, **L2** focus on the overall relationship toward the brand, and finally **L3**, has the goal to know if respondents will certainly or not, remain a customer of the brand.

Table 22 - Tesla - Loyalty

ITEM	MEAN	MEDIAN	STD. DEVIATION	CRONBACH ALPHA
L1	5,2	6	1,170	0,919
L2	5,2	6	0,971	
L3	5,3	6	0,978	

Author Elaboration

Table 23 - Volvo - Loyalty

ITEM	MEAN	MEDIAN	STD. DEVIATION	CRONBACH ALPHA
L1	5,1	5	1,019	0,929
L2	5,2	5	0,962	
L3	5,2	6	1,032	

Author Elaboration

Table 24 - Toyota - Loyalty

ITEM	MEAN	MEDIAN	STD. DEVIATION	CRONBACH ALPHA
L1	4,9	5	1,047	0,898
L2	5,2	5	0,845	
L3	5,0	5	0,974	

Author Elaboration

From (**Table 22, Table 23, and Table 24**), we can analyse that mean values goes from **4.9** to **5.3**, and median are from **5** to **6**. Meaning that globally respondents from all surveys feel that by their actions and behaviours, they are loyal customer of the brand. Also, customers have good feelings towards their relationship with the brand, and thus certainly remain customer.

Regarding standard deviation values, the minimum is **0.845** until **1.170**, meaning that again, some respondents feelings rates are closer to the mean, while some other are more spread.

Finally, Cronbach Alpha values are still close to 1, with **0.919** for Tesla, **0.929** for Volvo and **0.898** for Toyota. This can lead us to say that the respondents feelings rate are pretty homogeneous. Also, it mean that we can rely on the internal consistency of the construct.

4. 1. 7. Customer citizen helping others

The seventh section aim to evaluate the level of help customer give each others. The first question **CHO1**, focus on how likely the respondents are talking to friends about products or services provided by the brand, while **CHO2** aim to know if customer are likely to help or explain other customer knowledges they don't have about the products or services provided.

Table 25 - Tesla - Customer Citizen Help. Others.

ITEM	MEAN	MEDIAN	STD. DEVIATION	CRONBACH ALPHA
CHO1	5,3	6	1,080	0,734
CHO2	5,6	6	0,956	

Author Elaboration

Table 26 - Volvo - Customer Citizen Help. Others.

ITEM	MEAN	MEDIAN	STD. DEVIATION	CRONBACH ALPHA
CHO1	5,3	6	0,928	0,782
CHO2	5,5	6	0,876	

Author Elaboration

Table 27 - Toyota - Customer Citizen Help. Others.

ITEM	MEAN	MEDIAN	STD. DEVIATION	CRONBACH ALPHA
CHO1	5,3	5	0,750	0,876
CHO2	5,4	5,5	0,686	

Author Elaboration

Regarding (**Table 25, Table 26, and Table 27**), we can notice that mean goes from **5.3** to **5.6**, and medians are from **5** to **6**. Meaning that majority of respondents are likely to talk about products or services provided by the brand, as well as help or explain to other customer some knowledges they don't have about the brand.

Standard deviation value goes from **0.686** to **1.080**, which is pretty low for Toyota **CHO2**, meaning that respondents' answers are close to the mean.

Cronbach Alpha values goes from **0.734** to **0.876**, which is considered as acceptable. Therefore we can rely on the construct.

4. 1. 8. Customer citizen helping the company

The eighth section focus on how likely are the respondents to help the company, meaning, answer to survey or providing useful information to the company. The first question **CHC1** aim to evaluate if respondents are likely to answer surveys emitted by the company, while **CHC2** is about the level of feedbacks provided to customer services. Finally, **CHC3** focus on how likely are respondents to give information about the product and service provided by the brand.

Table 28 - Tesla - Customer Citizen Help. The Company

ITEM	MEAN	MEDIAN	STD. DEVIATION	CRONBACH ALPHA
CHC1	5,9	6	0,320	
CHC2	5,7	6	0,543	0,394
CHC3	5,6	6	0,820	

Author Elaboration

Table 29 - Volvo - Customer Citizen Help. The Company

ITEM	MEAN	MEDIAN	STD. DEVIATION	CRONBACH ALPHA
CHC1	5,4	6	0,983	
CHC2	5,2	6	1,065	0,885
CHC3	4,9	5,5	1,320	

Author Elaboration

Table 30 - Toyota - Customer Citizen Help. The Company

ITEM	MEAN	MEDIAN	STD. DEVIATION	CRONBACH ALPHA
CHC1	5,2	6	1,050	0,856
CHC2	4,7	5	1,211	
CHC3	4,3	4	1,536	

Author Elaboration

According to (**Table 28, Table 29, and Table 30**) we can read that mean goes from **4.3** to **5.9** and medians are from **4** to **6**. Meaning that globally respondents are likely to provide information to the company, as feedbacks, or when it is surveyed by the brand.

Standard deviation values are from **0.320** to **1.536**, which is the widest extent for all section so far. Meaning, for **CHC1** from Tesla, all respondents' answers are very close to the mean, while **CHC3** from Toyota, where more respondents' answers are spread from the mean.

Finally the Cronbach Alpha values can lead us to say that Volvo and Toyota seems reliable, with **0.885** and **0.856**, while Tesla is just **0.394**, so less than **0.7**, the 'minimum' to rely on. Therefore we can say that maybe the Tesla section doesn't have a real good reliability.

4. 1. 9. Brand authenticity

The ninth part of the analysis is brand authenticity, through this section respondents had to rate their feelings about the brands' authenticity.

Table 31 - Tesla - Brand Authenticity

ITEM	MEAN	MEDIAN	STD. DEVIATION	CRONBACH ALPHA
BAU1	5,4	6	1,018	0,561
BAU2	5,5	6	0,760	

Author Elaboration

Table 32 - Volvo - Brand Authenticity

ITEM	MEAN	MEDIAN	STD. DEVIATION	CRONBACH ALPHA
BAU1	5,0	5,5	1,240	0,832
BAU2	4,9	5	1,256	

Author Elaboration

Table 33 - Toyota - Brand Authenticity

ITEM	MEAN	MEDIAN	STD. DEVIATION	CRONBACH ALPHA
BAU1	4,6	5	1,317	0,927
BAU2	4,3	4	1,364	

Author Elaboration

Regarding (**Table 31, Table 32, and Table 33**) we can read that mean goes from **4.3** to **5.5**, and medians from **4** to **6**. Globally, Tesla and Volvo respondents rated authenticity of the brand little bit higher than Toyota one.

The standard deviation values from **0.760** to **1.364**, which mean that respondents' answers are more or less close to the mean.

According to the Cronbach Alpha values, we can say that, as well as previous table on Customer Help Company analysis, Tesla manufacturer survey seems to be less reliable than Volvo and Toyota. Indeed, Tesla's Cronbach Alpha is equal to **0.561**, Volvo is **0.832** and Toyota **0.927**, which is lower than **0.7** the "minimum" to be reliable. Therefore, we can rely on Volvo and Toyota construct, and maybe not on Tesla one.

4. 1. 10. Brand attachment

The tenth and last analysis section of the survey, which is also the longest, focus on brand attachment. Through this part, nine questions were asked to respondents on what extent they feel about the brand. The first question **BAT1** aim to evaluate to what extent the brand is part of the respondents, **BAT2**, to what extent customers feel bonded to the brand, and **BAT3**, to

what extent the brand is part of them. The fourth question, **BAT4** aim to analyse to what extent does the brand says something about respondents to other people.

Then, **BAT5**, **BAT6** and **BAT7**, focus on the extent of respondents' thoughts toward the brand, do these thoughts come to mind naturally, instantly. **BAT8**, aim to evaluate the extent of respondents' feelings toward the brand itself, does the brand evoke many good thoughts and feelings about the past, present and future. Finally, **BAT9** focus on what extent respondents have many thoughts about the brand.

Table 34 - Tesla - Brand Attachment

ITEM	MEAN	MEDIAN	STD. DEVIATION	CRONBACH ALPHA
BAT1	4,5	5	1,381	
BAT2	4,7	5	1,309	
BAT3	4,4	5	1,350	
BAT4	4,5	5	1,365	
BAT5	4,5	5	1,360	0,935
BAT6	4,8	5	1,110	
BAT7	3,4	4	1,348	
BAT8	4,9	5	1,215	
BAT9	4,5	5	1,176	

Author Elaboration

Table 35 - Volvo - Brand Attachment

ITEM	MEAN	MEDIAN	STD. DEVIATION	CRONBACH ALPHA
BAT1	4,5	5	1,159	
BAT2	4,6	5	1,194	
BAT3	4,4	5	1,158	0,943
BAT4	4,5	5	1,250	
BAT5	4,4	5	1,220	
BAT6	4,6	5	1,079	

Table 35 - Volvo - Brand Attachment

BAT7	3,9	4	1,265	
BAT8	4,9	5	1,079	
BAT9	4,3	4,5	1,117	

Author Elaboration

Table 36 - Toyota - Brand Attachment

ITEM	MEAN	MEDIAN	STD. DEVIATION	CRONBACH ALPHA
BAT1	4,6	5	1,052	
BAT2	4,5	5	1,112	
BAT3	4,4	5	1,089	
BAT4	4,1	4	1,420	
BAT5	4,2	4	1,126	0,956
BAT6	4,2	4	1,148	
BAT7	3,6	4	1,303	
BAT8	4,9	5	1,083	
BAT9	4,2	4	1,187	

Author Elaboration

According (**Table 34, Table 35, and Table 36**), we can read that mean goes from **3.4** to **4.9**, which is the lowest mean for all section. Medians are from **4** to **5**. Globally on this section, respondents feel attached to the brand, mainly by having good thought about it, but, mean can lead us to say that this attachment is not that high, only **4** out of **6**. Moreover standard deviation values are from **1.079** to **1.381**, which are the highest values from all analysis section. Thus, meaning that respondents' answers are quite spread from the mean, in other words, customers have different feelings about the brand itself.

Finally about the Cronbach Alpha values, Tesla is equal to **0.935**, Volvo **0.943**, and Toyota 0.956. Therefore we can say that construct seems reliable because values are above **0.7**.

4. 2. The Independent t-test for H1

The Independent Sample t-test method is a parametric test that aim to compares the mean of two independent groups in order to determine whether there is statistical evidence that the associated population means are significantly different. In others words for this case, t-test will be used as a tool to compare all the three brand between each others, Tesla, Volvo, and Toyota.

In order to figure out clearly what are the main differences between the three enquiry, Sig.(2-tailed) variable values will be used as comparison way. By choosing a confidence interval of 95%, Alpha value should be equal to, $\alpha = 0.05$, thus any Sig.(2-tailed) value lower than 0.05 is considered as significantly difference.

4. 2. 1. Independent t-test: Tesla - Volvo

Table 37 - Independent Sample t-test: Tesla - Volvo

		Levene's Test for Equity of Variances		t-test for Equity of Means						
		F	Sig	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
RF1	Equal variances assumed	.267	.606	1.744	220	.083	.20845	.11954	-.02714	.44404
	Equal variances not assumed			1.739	212.734	.084	.20845	.11988	-.02786	.44477
RF2	Equal variances assumed	.314	.576	.038	220	.970	.00506	.13403	-.25909	.26920
	Equal variances not assumed			.038	218.576	.970	.00506	.13341	-.25787	.26798
RF3	Equal variances assumed	.266	.607	.991	220	.323	.11267	.11369	-.11139	.33673
	Equal variances not assumed			.992	216.475	.322	.11267	.11354	-.11112	.33646
PS1	Equal variances assumed	.267	.606	-.933	220	.352	-.12564	.13461	-.39093	.13964
	Equal variances not assumed			-.940	219.500	.348	-.12564	.13366	-.38907	.13779

Table 37 - Independent Sample t-test: Tesla - Volvo

PS2	Equal variances assumed	.129	.720	-.437	220	.662	-.07000	.16005	-.38542	.24542
	Equal variances not assumed			-.439	218.466	.661	-.07000	.15934	-.38404	.24404
PS3	Equal variances assumed	.004	.950	1.050	220	.295	.12964	.12343	-.11361	.37289
	Equal variances not assumed			1.052	216.656	.294	.12964	.12324	-.11326	.37254
SE1	Equal variances assumed	16.601	.000	**4.339**	220	**.000**	**.57159**	.13172	**.31199**	**.83119**
	Equal variances not assumed			**4.225**	175.97	**.000**	**.57159**	.13528	**.30460**	**.83858**
SE2	Equal variances assumed	2.404	.122	.791	220	.430	.15151	.19154	-.22599	.52900
	Equal variances not assumed			.797	219.763	.426	.15151	.19000	-.22295	.52596
SE3	Equal variances assumed	.914	.340	**3.280**	220	**.001**	**.61214**	.18661	**.24437**	**.97991**
	Equal variances not assumed			**3.250**	205.017	**.001**	**.61214**	.18833	**.24084**	**.98344**
CO1	Equal variances assumed	.018	.894	.193	201	.847	.02498	.12965	-.23067	.28062
	Equal variances not assumed			.194	194.882	.847	.02498	.12888	-.22921	.27916
CO2	Equal variances assumed	.003	.955	.141	201	.888	.02124	.15043	-.27538	.31786
	Equal variances not assumed			.142	194.059	.887	.02124	.14974	-.27409	.31657
CO3	Equal variances assumed	.001	.977	.325	201	.746	.04267	.13134	-.21630	.30165
	Equal variances not assumed			.326	193.081	.745	.04267	.13094	-.21558	.30093
BAU 1	Equal variances assumed	5.753	.017	**2.777**	201	**.006**	**.44022**	.15850	**.12768**	**.75275**
	Equal variances not assumed			**2.716**	170.934	**.007**	**.44022**	.16207	**.12030**	**.76013**
BAU 2	Equal variances assumed	20.194	.000	**4.072**	200	**.000**	**.58139**	.14279	**.29982**	**.86295**
	Equal variances not assumed			**3.850**	136.717	**.000**	**.58139**	.15100	**.28280**	**.87998**
BAT 1	Equal variances assumed	2.096	.149	-.350	198	.727	-.06408	.18306	-.42508	.29693

Table 37 - Independent Sample t-test: Tesla - Volvo

	Equal variances not assumed			-.357	197.581	.722	-.06408	.17957	-.41820	.29005
BAT 2	Equal variances assumed	.129	.720	.699	198	.485	.12522	.17912	-.22801	.47844
	Equal variances not assumed			.706	194.674	.481	.12522	.17732	-.22449	.47492
BAT 3	Equal variances assumed	1.335	.249	-.356	198	.722	-.06428	.18051	-.42024	.29169
	Equal variances not assumed			-.362	197.066	.718	-.06428	.17750	-.41432	.28577
BAT 4	Equal variances assumed	.381	.538	.170	195	.865	.03211	.18844	-.33952	.40375
	Equal variances not assumed			.172	191.862	.864	.03211	.18668	-.33610	.40032
BAT 5	Equal variances assumed	.712	.400	.362	201	.718	.06657	.18389	-.29603	.42917
	Equal variances not assumed			.367	198.272	.714	.06657	.18185	-.29150	.42464
BAT 6	Equal variances assumed	.056	.813	1.116	197	.266	.17486	.15661	-.13400	.48371
	Equal variances not assumed			1.120	189.112	.264	.17486	.15607	-.13301	.48273
BAT 7	Equal variances assumed	.538	.464	-.350	198	.726	-.06539	.18667	-.43351	.30273
	Equal variances not assumed			-.353	193.108	.725	-.06539	.18537	-.43101	.30022
BAT 8	Equal variances assumed	.237	.627	.106	195	.916	.01751	.16570	-.30928	.34431
	Equal variances not assumed			.107	193.200	.915	.01751	.16361	-.30518	.34021
BAT 9	Equal variances assumed	.267	.606	.558	193	.578	.09229	.16550	-.23413	.41871
	Equal variances not assumed			.560	188.993	.576	.09229	.16467	-.23254	.41712

Author Elaboration

The (**Table 37 - Independent Sample t-test: Tesla - Volvo**) consist in showing us the independent sample t-test result for the comparison between Tesla and Volvo brand. By using Sig.(2-tailed) values as the way of comparison, we can read that the first question of Social & Environmental variable (**SE1**) is equal to .**000**, so lower than the minimum of **0.05** required for non-significant results.

Therefore, this mean that on (**SE1**) question, Tesla's and Toyota's respondents have significant different thought towards the brand they answered about. In others words, Tesla's and Toyota's respondents feel differently about the 'eco-friendly' aspect of the company that should work to reduce their impact on global warming. Moreover on Social & Environmental variable, for (**SE3**) question, Sig.(2-tailed) value is equal to .**001**, thus here again the difference is considered as significant between the two brand's respondents. Then, we can analyse that Brand Authenticity item is also concerned by a significant difference. Indeed, (**BAU1**) question has a Sig.(2-tailed) value equal to .**001**, as well as (**BAU2**), .**001**. Meaning that Tesla's and Volvo's respondents have really different feelings toward the real authenticity of the brand they answered about.

4. 2. 2. Independent t-test: Tesla - Toyota

Table 38 - Independent Sample t-test: Tesla - Toyota

		Levene's Test for Equity of Variances		t-test for Equity of Means						
		F	Sig	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
RF1	Equal variances assumed	.872	.351	**2.169**	222	**.031**	**.24202**	.11158	**.02214**	**.46190**
	Equal variances not assumed			**2.183**	221.868	**.030**	**.24202**	.11087	**.02352**	**.46051**
RF2	Equal variances assumed	1.171	.280	-.168	222	.866	-.02185	.12979	-.27763	.23393
	Equal variances not assumed			-.170	221.999	.865	-.02185	.12876	-.27560	.23190
RF3	Equal variances assumed	.001	.974	1.530	222	.127	.16695	.10911	-.04808	.38197
	Equal variances not assumed			1.540	221.845	.125	.16695	.10844	-.04675	.38064
PS1	Equal variances assumed	1.394	.239	-.431	222	.667	-.05546	.12873	-.30915	.19823
	Equal variances not assumed			-.436	220.936	.663	-.05546	.12718	-.30610	.19518
PS2	Equal variances assumed	1.729	.190	-1.393	222	.165	-.21008	.15084	-.50734	.08717

Table 38 - Independent Sample t-test: Tesla - Toyota

	Equal variances not assumed			-1.410	220.986	.160	-.21008	.14903	-.50379	.08363
PS3	Equal variances assumed	3.048	.082	1.510	222	.133	.17199	.11393	-.05253	.39651
	Equal variances not assumed			1.529	220.745	.128	.17199	.11252	-.04975	.39373
SE1	Equal variances assumed	15.008	.000	**5.135**	222	**.000**	**.66443**	.12940	**.40941**	**.91944**
	Equal variances not assumed			**5.023**	182.330	**.000**	**.66443**	.13227	**.40346**	**.92540**
SE2	Equal variances assumed	9.119	.003	1.540	222	.125	.28123	.18265	-.7872	.64119
	Equal variances not assumed			1.561	220.079	.120	.28123	.18019	-.07388	.63634
SE3	Equal variances assumed	1.112	.293	**3.456**	222	**.001**	**.64090**	.18546	**.27540**	**1.00639**
	Equal variances not assumed			**3.429**	209.117	**.001**	**.64090**	.18691	**.27243**	**1.00936**
CO1	Equal variances assumed	1.270	.261	-.056	191	.956	-.00697	.12493	-.25338	.23945
	Equal variances not assumed			-.058	189.712	.954	-.00697	.11950	-.24268	.22874
CO2	Equal variances assumed	.135	.261	.219	191	.827	.03374	.15381	-.26965	.33713
	Equal variances not assumed			.222	177.425	.824	.03374	.15191	-.26604	.33352
CO3	Equal variances assumed	.601	.439	.280	191	.780	.03573	.12756	-.21587	.28733
	Equal variances not assumed			.290	187.131	.772	.03573	.12322	-.20736	.37882
BAU 1	Equal variances assumed	15.574	.000	**4.988**	191	**.000**	**.83883**	.16816	**.50715**	**1.17051**
	Equal variances not assumed			**4.777**	142.017	**.000**	**.83883**	.17561	**.49168**	**1.18598**
BAU 2	Equal variances assumed	42.916	.000	**7.489**	190	**.000**	**1.15257**	.15390	**.84900**	**1.45614**
	Equal variances not assumed			**6.814**	111.591	**.000**	**1.15257**	.16916	**.81740**	**1.48775**
BAT1	Equal variances assumed	4.274	.040	-.549	189	.583	-.10101	.18388	-.46374	.26171
	Equal variances not assumed			-.574	188.393	.567	-.10101	.17608	-.44835	.24633

Table 38 - Independent Sample t-test: Tesla - Toyota

BAT2	Equal variances assumed	.492	.484	.877	189	.382	.15822	.18042	-.19768	.51412
	Equal variances not assumed			.900	183.853	.369	.15822	.17573	-.18849	.50493
BAT3	Equal variances assumed	2.248	.135	-.225	189	.823	-.04110	.18299	-.40207	.31987
	Equal variances not assumed			-.233	186.562	.816	-.04110	.17678	-.38984	.30763
BAT 4	Equal variances assumed	.192	.662	**2.101**	186	**.037**	**.43084**	.20509	**.02625**	**.83544**
	Equal variances not assumed			**2.088**	164.259	**.038**	**.43084**	.20639	**.02333**	**.83836**
BAT5	Equal variances assumed	2.132	.146	1.802	191	.073	.33462	.18566	-.03159	.70083
	Equal variances not assumed			1.862	186.427	.064	.33462	.17973	-.01994	.68919
BAT 6	Equal variances assumed	.619	.432	**3.396**	188	**.001**	**.56323**	.16585	**.23606**	**.89040**
	Equal variances not assumed			**3.378**	164.811	**.001**	**.56323**	.16676	**.23398**	**.89249**
BAT7	Equal variances assumed	.019	.892	1.287	189	.200	.25090	.19500	-.13375	.63555
	Equal variances not assumed			1.294	173.649	.197	.25090	.19392	-.13185	.63365
BAT8	Equal variances assumed	.007	.933	-.064	187	.949	-.01089	.17094	-.43811	.32632
	Equal variances not assumed			-.065	179.992	.948	-.01089	.16795	-.34230	.32051
BAT9	Equal variances assumed	.016	.898	1.367	184	.173	.23944	.17515	-.10612	.58501
	Equal variances not assumed			1.365	167.359	.174	.23944	.17540	-.10683	.58571

Author Elaboration

(**Table 38 - Independent Sample t-test: Tesla - Toyota)** is showing us the t-test comparison between Tesla and Toyota brand. When we first look at the (**Table 38 - Independent Sample t-test: Tesla - Toyota**) we can easily see that more items are considered to have a significant difference. First, (**RF1**) question related to the item Reliability & Finance of the Company, SIg.(2-tailed) values are from .**030** to .**031**, meaning that Tesla and Toyota's respondents have different feelings towards the fact that the brand is an outperform competitors on his market.

Then, as for (**Table 37 - Independent Sample t-test: Tesla - Volvo**), questions (**SE1**) and (**SE3**) from Social & Environmental item are again considered as significantly different, values are from .**000** for (**SE1**) to .**001** for (**SE3**).

Same case for question (**BAU1**) and (**BAU2**) from Brand Authenticity item with values equal to .**000** for both (**BAU1**) and (**BAU2**). Finally, the last significant difference between Tesla and Toyota taking place with the Brand Attachment item on question (**BAT4**) and (**BAT6**). Sig.(2-tailed) values are from .**037** to .**038** for (**BAT4**) and equal to .**001** for (**BAT6**). In other words, Tesla and Toyota's respondents have different feelings towards the fact that the car they drive say something about who they are to others, as well as the fact that their thoughts and feelings about the brand come to mind instantly.

4. 2. 3. Independent t-test: Volvo - Toyota

Table 39 - Independent Sample t-test: Volvo - Toyota

		Levene's Test for Equity of Variances		t-test for Equity of Means						
		F	Sig	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
RF1	Equal variances assumed	2.032	.156	.285	206	.776	.03356	.11772	-.19853	.26566
	Equal variances not assumed			.285	200.895	.776	.03356	.11788	-.19888	.26601
RF2	Equal variances assumed	.257	.613	-.208	206	.835	-.02691	.12922	-.28166	.22785
	Equal variances not assumed			-.208	204.606	.835	-.02691	.12930	-.28183	.22802
RF3	Equal variances assumed	.383	.537	.487	206	.627	.05428	.11154	-.16564	.27419
	Equal variances not assumed			.486	203.931	.627	.05428	.11163	-.16582	.27438
PS1	Equal variances assumed	.455	.501	.560	206	.576	.07018	.12529	-.17638	.31719
	Equal variances not assumed			.560	203.205	.576	.07018	.12540	-.17708	.31744

Table 39 - Independent Sample t-test: Volvo - Toyota

PS2	Equal variances assumed	.914	.340	-.935	206	.351	-.14008	.14977	-.43535	.15519
	Equal variances not assumed			-.934	201.406	.351	-.14008	.14996	-43577	.15560
PS3	Equal variances assumed	2.824	.094	.366	206	.715	.04235	.11572	-.18579	.27049
	Equal variances not assumed			.365	198.239	.715	.04235	.11592	-.18624	.27094
SE1	Equal variances assumed	.051	.822	.583	206	.560	.09283	.15916	-.22095	.40662
	Equal variances not assumed			.583	205.645	.560	.09283	.15919	-.22102	.40669
SE2	Equal variances assumed	2.049	.154	.737	206	.462	.12973	.17596	-.21718	.47663
	Equal variances not assumed			.737	202.740	.462	.12973	.17614	-.21757	.47703
SE3	Equal variances assumed	.005	.943	.140	206	.888	.02876	.20473	-.37488	.43239
	Equal variances not assumed			.140	205.897	.888	.02876	.20474	-.37489	.43241
CO1	Equal variances assumed	1.087	.299	-.255	168	.799	-.03194	.12524	-.27920	.21531
	Equal variances not assumed			-.258	166.559	.797	-.03194	.12370	-.27617	.21228
CO2	Equal variances assumed	.194	.660	.079	168	.937	.01250	.15754	-.29851	.32351
	Equal variances not assumed			.079	166.764	.937	.01250	.15724	-.29793	.32293
CO3	Equal variances assumed	.684	.410	-.053	168	.958	-.00694	.13046	-.26451	.25062
	Equal variances not assumed			-.054	167.433	.957	-.00694	.12912	-.26186	.24797
BAU 1	Equal variances assumed	1.860	.174	**2.031**	168	**.044**	**.39861**	.19623	**.01122**	**.78600**
	Equal variances not assumed			**2.024**	162.854	**.045**	**.39861**	.19692	**.00977**	**.78746**
BAU 2	Equal variances assumed	1.900	.170	**2.825**	166	**.005**	**.57118**	.20217	**.17202**	**.97035**
	Equal variances not assumed			**2.811**	159.526	**.006**	**.57118**	.20317	**.16994**	**.97243**
BAT 1	Equal variances assumed	.452	.502	-.216	167	.829	-.03694	.17087	-.37427	.30040

Table 39 - Independent Sample t-test: Volvo - Toyota

	Equal variances not assumed			-.217	166.980	.828	-.03694	.16999	-.37254	.29867
BAT 2	Equal variances assumed	.135	.713	.185	167	.853	.03301	.17808	-.31858	.38459
	Equal variances not assumed			.186	166.782	.853	.03301	.17741	-.31725	.38326
BAT 3	Equal variances assumed	.146	.703	.134	167	.894	.02317	.17350	-.31937	.36572
	Equal variances not assumed			.134	166.657	.894	.02317	.17293	-.31824	.36459
BAT 4	Equal variances assumed	1.028	.312	1.930	165	.055	.39873	.20660	-.00919	.80666
	Equal variances not assumed			1.917	156.442	.057	.39873	.20802	-.01216	.80963
BAT 5	Equal variances assumed	.434	.511	1.483	168	.140	.26806	.18077	-.08882	.62493
	Equal variances not assumed			1.490	167.745	.138	.26806	.17992	-.08715	.62326
BAT 6	Equal variances assumed	.337	.563	**2.253**	165	**.026**	**.38838**	.17235	**.04808**	**.72867**
	Equal variances not assumed			**2.246**	160.359	**.026**	**.38838**	.17293	**.04687**	**.72989**
BAT 7	Equal variances assumed	.727	.395	1.600	167	.112	.31629	.19774	-.07410	.70668
	Equal variances not assumed			1.597	163.932	.112	.31629	.19805	-.07477	.70735
BAT 8	Equal variances assumed	.182	.670	-.170	166	.865	-.02841	.16698	-.35809	.30127
	Equal variances not assumed			-.170	164.361	.865	-.02841	.16701	-.35818	.30136
BAT 9	Equal variances assumed	.117	.733	.825	165	.411	.14715	.17837	-.20502	.49932
	Equal variances not assumed			.822	160.435	.412	.14715	.17895	-.20625	.50055

Author Elaboration

The last table (**Table 39 - Independent Sample t-test: Volvo - Toyota**) is showing us the t-test comparisons between Volvo and Toyota brand. Hence, we can analyse from it, that Brand Authenticity item is again concerned by a significant difference between the two brand's respondents answers. Sig.(2-tailed) values are from .**044** to .**045** for (**BAU1**) and from .005 to

.006 for (**BAU2**), meaning that Volvo and Toyota's respondents have different feelings towards the level of authenticity of the brand they answered about.

Finally, Brand Attachment item is also concerned by a significant difference, on (**BAT6**) question, Sig.(2-tailed) values are equal to .**026**. In other word, Volvo and Toyota's respondents feelings differently about the fact that their thoughts come to mind instantly about their car brand.

4. 2. 4. Independent t-test for H1 - Findings

To end on independent t-test analysis section, the Independent t-test tables lead us to say that the difference between all the three brand is quite low. Indeed, when we look at all the Independent t-test tables we can notice that just few items are considered as significantly different. The item most represented as significantly different for all the three brand is Brand Authenticity. In other word, if Brand Authenticity item is considered as significantly different for the three brand, it can lead us to say that Brand Authenticity item is not seen as similar between Tesla, Volvo and Toyota brand.

In fact, if we look at the Mean Difference values from (**Table 37 - Independent Sample t-test: Tesla - Volvo**) we can analyse that Tesla's average answer rate for (**BAU1**) question is .**4402** higher than Volvo ones, meaning that Tesla respondents have rated the level of authenticity of Tesla globally higher than Volvo's ones. The same case occurred for (**BAU2**) question, Tesla's respondents have scored .**58139** above Volvo's ones, in other word Tesla's respondents feel that Tesla car is an authentic car manufacturer, while, Volvo's respondents feel the brand less authentic. Then, we can look at the (**Table 38 - Independent Sample t-test: Tesla - Toyota**), here also for (**BAU1**) question Tesla respondents have rated the authenticity of the brand .**83883** higher than Toyota's one. Moreover, (**BAU2**) question is following the same tendency, Tesla's respondents have rated this question **1.15257** higher than Toyota's one. In others word, the case here is the same than before with Volvo, again, Tesla's respondents have globally rated high level of authenticity while Toyota's one are feeling the brand as less authentic.

Finally, between Volvo and Toyota brand, (**Table 39 - Independent Sample t-test: Volvo - Toyota**) is showing us for Brand Authenticity item that Volvo's respondent have rated

(**BAU1**) question .**39861** higher than Toyota's one, which is the lowest value of the Brand Authenticity comparison between the three brand. Brand Authenticity is the main significant difference item between all the three brand, however we can clearly read that Tesla brand respondents have rated very high the level of authenticity compared to Toyota and Volvo's respondents. In other word, Tesla's respondents feel Tesla brand as an authentic car manufacturer while Volvo and Toyota's respondents feel their brand as less authentic.

Then, we need to look at other significant difference between the three brand, on Social & Environmental item, only (**Table 37 - Independent Sample t-test: Tesla - Volvo**) and (**Table 38 - Independent Sample t-test: Tesla - Toyota**) have significant differences. Indeed, the Social & Environmental section from both table are considered as significantly different for the question (**SE1**) and (**SE3**), while for the (**Table 39 - Independent Sample t-test: Volvo - Toyota**) no significant difference has been highlighted. In other word Tesla's respondents feel the brand as more 'eco-friendly' and able to reduce its own impact on global warming, as well as, its support for good causes as ONG, while Volvo and Toyota's respondents have rated their feelings lower, thus, they feel Volvo or Toyota brand less able to really act on these Social & Environmental aspects.

Finally, (**Table 39 - Independent Sample t-test: Volvo - Toyota**) and (**Table 38 - Independent Sample t-test: Tesla - Toyota**) show us another difference considered as significant on Brand Attachment section for the question (**BAT6**). In fact, for (**Table 38 - Independent Sample t-test: Tesla - Toyota**) the question (**BAT6**) have Sig.(2-tailed) value lower than **0.05**, also, we can read that Tesla's respondents have rated their feelings .**56323** higher than Toyota's one. Same scheme for (**Table 39 - Independent Sample t-test: Volvo - Toyota**), with Volvo's respondents that have rated their feelings .**38838** higher than Toyota's one. Moreover none significant difference on (**BAT6**) has been highlighted on (**Table 37 - Independent Sample t-test: Tesla - Volvo**), so the meaning is that Toyota's respondents are feelings less impacted by emotions toward the brand that are coming instantly and naturally.

Therefore we can notice the significant differences between the three brand. Tesla's owners and respondents seem very attached and committed, also they believe into Tesla brand, mainly by having very good thought about it, whether on Social & Environmental aspect or Brand Authenticity. In the other side, Volvo and Toyota brand's respondents and owners seem less concerned about Brand Authenticity and Social & Environmental aspects.

4. 3. Relationship among Brand Authenticity, Brand Reputation and Brand Attachment for Tesla Brand

After have studied Independent t-test outputs, this section aim to show us more analysis variables and methods to better understand the situation between Tesla, Volvo and Toyota Brand. The PLS model should be analysed and interpret in two stages, first the measurement model or the adequacy of the measures is assessed by evaluating the reliability of the individual measures, the convergent validity and the discriminant validity of the construct. To begin, Composite reliability values need to be higher than 0.7 to consider the construct as reliable. « Item Loading of scales measuring reflective constructs should be at least 0.707 or higher, which indicate that over 50% of the variance in the observed variable is explained by the construct » (Wetzels, Odekerteken-Schroder, & Van Oppen, 2009).

Then, the Average Variance Extracted (AVE) values need to be higher than 0.5, aim to indicate that most of the variance of each indicator is explained by its own construct. Also, we need to focus on the parameter estimates of indicator weights, significance of weight and multicollinearity of indicators. « Weights measures the contribution of each formative indicator to the variance of the latest variable » (Robert & Tatcher, 2009). A significance level of at least 0.05 suggest that an indicator is relevant to the construction of the formative index, and thus demonstrate a sufficient level of validity. « The recommended indicator weight is > 0.2 » (Chin, 1998). Finally, the last outputs need to be analysed by using the 'Discriminant Validity' table aim to measure constructs that theoretically should not be related to each other and are, in fact, unrelated. « The square root of AVE should be greater than the correlation between the construct and other constructs in the model » (Fornell & Larcker, 1981).

Table 40 - Measurement Results - Tesla

LATENT VARIABLES	ITEMS	MEAN LV	ITEM LOADING (Reflective Measure)	COMPOSITE RELIABILITY	AVE
BRAND AUTHENTICITY	Have you that Tesla is an authentic car manufacturer?	5.5	0.829	**0.826**	0.703
	Can you please rank the perception you have about the level of authenticity of Tesla brand?		0.848		

Table 40 - Measurement Results - Tesla

CORPORATE BRAND REPUTATION		5.2		0.934	**0.547**
CUSTOMER ORIENTATION	Have you the feelings to be well treated, welcomed and received by Tesla employees team?	5.3	**0.949**	0.955	**0.877**
	Have you the feelings that Tesla employees team and staff are really concerned, involved by your concerns/questions?		0.930		
	Have you the feelings that Tesla employees team and staff are treating you fairly when you have to deal with them?		0.930		
PRODUCTS AND SERVICES	Have you the feelings that Tesla brand provide globally high quality of products and services?	5.2	0.867	0.902	0.754
	Have you the feelings that Tesla does everything it can to ensure a good overall services quality all along the customers' needs?		0.878		
	Have you the feelings that Tesla is constantly innovating new products and services to ensure to meet their customers' needs?		0.859		
RELIABILITY & FINANCE	Have you the feelings that Tesla is clearly an outperform competitors, and thus can really have huge weight on his market?	5.4	0.855	0.880	0.711
	Have you the feelings that Tesla brand is good at recognising and taking advantages of market opportunities?		0.756		
	Have you the feelings that Tesla brand has strong prospects for future growth?		0.911		
BRAND ATTACHMENT		4.5		0.949	0.676
BRAND-SELF CONNECTION	To what extent Tesla is part of who you are?	4.6	0.908	0.938	0.719
	To what extent do you feel emotionally bonded to Tesla?		0.915		

Table 40 - Measurement Results - Tesla

	To what extent is Tesla part of you?		0.942		
	To what extent does Tesla say something to other people about who you are?		**0.714**		
	To what extent does the word Tesla automatically evoke many good thoughts about the past, present and future?		0.816		
	To what extent do you have many thoughts about Tesla?		0.768		
PROMINENCE	To what extent are your thoughts and feelings towards Tesla often automatic, coming to mind seemingly on their own?	4.4	0.902	0.925	0.804
	To what extent do your thoughts and feelings towards Tesla come to mind natural and instantly?		0.932		
	To what extent do your thoughts and feelings toward Tesla come to mind so naturally and instantly that you don't have much control over them?		0.854		
SOCIAL & ENVIRONMENTAL	Have you the feelings that Tesla is a 'eco-friendly' company, and work to reduce its own impact on global warming?	5.0	0.816	0.876	0.702
	Have you the feelings that Tesla could be able to reduce their own profit to ensure a clean environment?		0.810		
	Have you the feelings that Tesla would be a good supports for good causes, as ONG, etc		0.854		

Author Elaboration

(**Table 40 - Measurement Results - Tesla**) show us the Measurement Results for Tesla Brand. To fit with the PLS model analysis, we can start looking at the Item Loading values which need to be higher than 0.707, thus indicate that over 50% of the variance in the observed variable is explained by the construct (Wetzels, Odekerden-Schroder, & Van Oppen, 2009).

(**Table 40 - Measurement Results - Tesla**) show us that the lowest Item Loading value is equal to **0.714** for Brand-Self Connection section and the highest one is equal to **0.949** for Customer Orientation section. Therefore, all values are above 0.707 minimum value. As seen previously on the study, all Cronbach's Alpha values are higher than 0.7, moreover, Composite Reliability values on (**Table 40 - Measurement Results - Tesla**) are higher than 0.8, with a minimum value equal to **0.826** for Brand Authenticity item, and the highest one equal to **0.955**. Thus, all construct are reliable since the composite reliability values exceed the threshold value of 0.7.

Then, we can look at the Average Variance Extracted, AVE, the minimum value is equal to **0.547** for Corporate Brand Reputation item, while the highest one is equal to **0.877** for Customer Orientation section. Therefore, the measure demonstrate convergent validity as the AVE values are above 0.5, indicating that most of the variance of each indicator is explained by its own construct.

4. 3. 1. Discriminant Validity - Tesla

Table 41 - Discriminant Validity - Tesla

	1.	2.	3.	4.	5.	6.	7.
AVE $^{1/2}$	0.937	0.868	0.843	0.839	0.848	0.897	0.838
1. Customer orientation	1.000						
2. Product and service quality	0.700	1.000					
3. Reliable and financially	0.652	0.616	1.000				
4. B authenticity	0.611	0.574	0.489	1.000			
5. B-self connection	0.335	0.404	0.371	0.465	1.000		
6.Prominence	0.089	0.137	0.160	0.323	0.693	1.000	
7. Social and environmental responsibility	0.423	0.308	0.638	0.316	0.247	0.074	1.000
Correlation between first- and second-order construct							
	Reliable and financially	Product and service quality	Social and environmental responsibility	Customer orientation			
Corporate brand reputation	0.918	0.870	0.741	0.915			
Correlation between first- and second-order construct							
	Brand-Self Connection	Prominence					
Brand attachment	0.976	0.907					

Author Elaboration

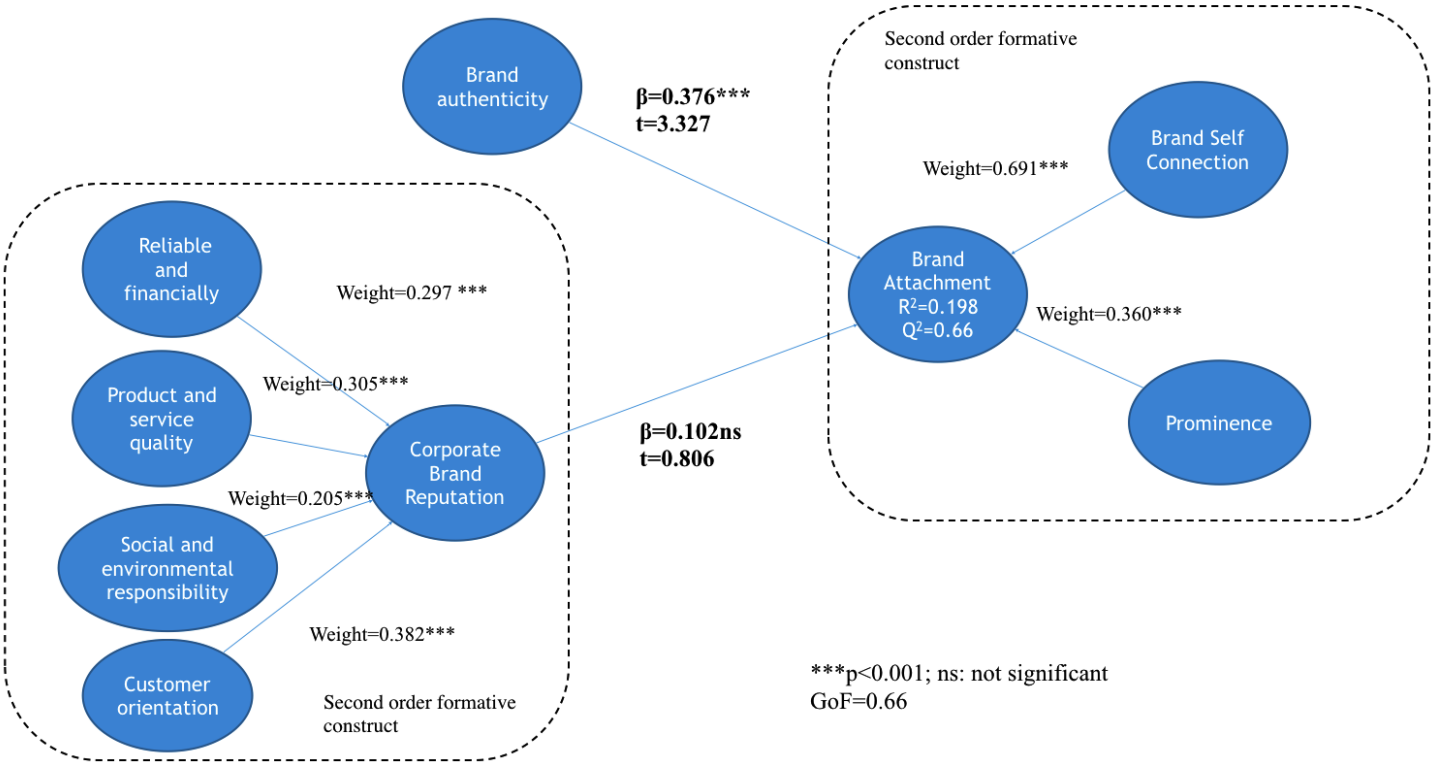
(**Table 41 - Discriminant Validity - Tesla**) show us the second-order construct with the square root of Average Variance Extracted (AVE) on the top row of the table. As previously seen, the AVE values should be greater than the correlation between the construct and other

constructs in the model. (**Table 41 - Discriminant Validity - Tesla**) show us that this criterion has been met. To end on discriminant validity findings we can look at the last part of (**Table 41 - Discriminant Validity - Tesla**) that show us the correlation between each first-order construct and the second-order construct is > 0.71, meaning that « they have more than half of their variance in common » (MacKenzie, Podsakoff, & Podsakoff, 2011).

4. 3. 2. Structural Model - Tesla

The conceptual model of Tesla, (**Figure 9 - Structural Model - Tesla**) show us the relationship between Brand Authenticity and Brand Attachment (**β=0.376, p<0.001**) is stronger than between Corporate Brand Reputation and Brand Attachment. (**β=0.102,p<0.001**). Moreover the measures of predictive validity such as R^2 & Q^2 should be analysed. The Q^2 value (Chi-squared of Stone-Geisser criterion) is positive, equal to **0.66**, so the relation in the model have predictive relevance (Fornell & Cha, 1994). The model is also demonstrating us a level of predictive power R^2 as the modelled construct explained **19.8%** of the variance in Brand Attachment. Finally we need to look at the GoF value (Good Overall Fit), as Wetzels et al. (2009) suggested, a GoF greater than 0.35 in the social science field indicates a very good fit, in our case the Tesla GoF is equal to **0.66**.

Figure 9 - Structural Model - Tesla



Author Elaboration

4. 4. Relationship among Brand Authenticity, Brand Reputation and Brand Attachment for Volvo Brand

Table 42 - Measurement Results - Volvo

LATENT VARIABLES	ITEMS	MEAN LV	ITEM LOADING (Reflective Measure)	COMPOSITE RELIABILITY	AVE
BRAND AUTHENTICITY	Have you that Volvo is an authentic car manufacturer?	5.0	0.933	0.922	0.855
	Can you please rank the perception you have about the level of authenticity of Volvo brand?		0.917		
CORPORATE BRAND REPUTATION		5.1		0.940	**0.570**
CUSTOMER ORIENTATION	Have you the feelings to be well treated, welcomed and received by Volvo employees team?	5.3	**0.954**	0.964	0.900
	Have you the feelings that Volvo employees team and staff are really concerned, involved by your concerns/questions?		0.944		
	Have you the feelings that Volvo employees team and staff are treating you fairly when you have to deal with them?		0.948		
PRODUCTS AND SERVICES	Have you the feelings that Volvo brand provide globally high quality of products and services?	5.2	0.875	0.912	0.775
	Have you the feelings that Volvo does everything it can to ensure a good overall services quality all along the customers' needs?		0.886		
	Have you the feelings that Volvo is constantly innovating new products and services to ensure to meet their customers' needs?		0.879		
RELIABILITY & FINANCE	Have you the feelings that Volvo is clearly an outperform competitors, and thus can really have huge weight on his market?	5.2	0.869	0.890	0.730

Table 42 - Measurement Results - Volvo

	Have you the feelings that Volvo brand is good at recognising and taking advantages of market opportunities?		0.770		
	Have you the feelings that Volvo brand has strong prospects for future growth?		0.918		
BRAND ATTACHMENT		4.5		0.952	0.689
BRAND-SELF CONNECTION	To what extent Volvo is part of who you are?	4.6	0.897	0.939	0.721
	To what extent do you feel emotionally bonded to Volvo?		0.892		
	To what extent is Volvo part of you?		0.932		
	To what extent does Volvo say something to other people about who you are?		**0.724**		
	To what extent does the word Volvo automatically evoke many good thoughts about the past, present and future?		0.801		
	To what extent do you have many thoughts about Volvo?		0.833		
PROMINENCE	To what extent are your thoughts and feelings towards Volvo often automatic, coming to mind seemingly on their own?	4.4	0.915	0.935	0.827
	To what extent do your thoughts and feelings towards Volvo come to mind natural and instantly?		0.938		
	To what extent do your thoughts and feelings toward Volvo come to mind so naturally and instantly that you don't have much control over them?		0.874		
SOCIAL & ENVIRONMENTAL	Have you the feelings that Volvo is a 'eco-friendly' company, and work to reduce its own impact on global warming?	4.4	0.880	**0.884**	0.718

Table 42 - Measurement Results - Volvo

	Have you the feelings that Volvo could be able to reduce their own profit to ensure a clean environment?		0.831		
	Have you the feelings that Volvo would be a good supports for good causes, as ONG, etc		0.830		

Author Elaboration

The (**Table 42 - Measurement Results - Volvo**) show us the measurement results for Volvo brand. As for Tesla we can notice that Item loading values goes from **0.724** for Brand-Self Connection section, to **0.954** for Customer Orientation, thus above the threshold of 0.707, which indicates that over 50% of the variance in the observed variable is explained by the construct. (Wetzels, Odekerden-Schroder, & Van Oppen, 2009).

Then the lowest Composite Reliability value is equal to **0.884**, which is exceeding the threshold value of 0.7, meaning that the constructs are reliable. Finally, the lowest Average Variance Extracted (AVE) value is **0.570**, so above 0.5, meaning that most of the variance of each indicator is explained by its own construct.

4. 4. 1. Discriminant Validity - Volvo

Table 43 - Discriminant Validity - Volvo

	1.	2.	3.	4.	5.	6.	7.
AVE ½	0.949	0.880	0.854	0.925	0.849	0,909	0,847
1. Customer orientation	1.000						
2. Product and service quality	0.678	1.000					
3. Reliable and financially	0.695	0.729	1.000				
4. B authenticity	0.553	0.513	0.580	1.000			
5. B-self connection	0.417	0.468	0.425	0.508	1.000		
6.Prominence	0.252	0.297	0.315	0.467	0.707	1,000	
7. Social and environmental responsibility	0.472	0.426	0.692	0.637	0.375	0,307	1,000

Correlation between first- and second-order construct

	Reliable and financially	Product and service quality	Social and environmental responsibility	Customer orientation
Corporate brand reputation	0.908	0.870	0.721	0.889

Correlation between first- and second-order construct

	Brand-Self Connection	Prominence
Brand attachment	0.976	0.915

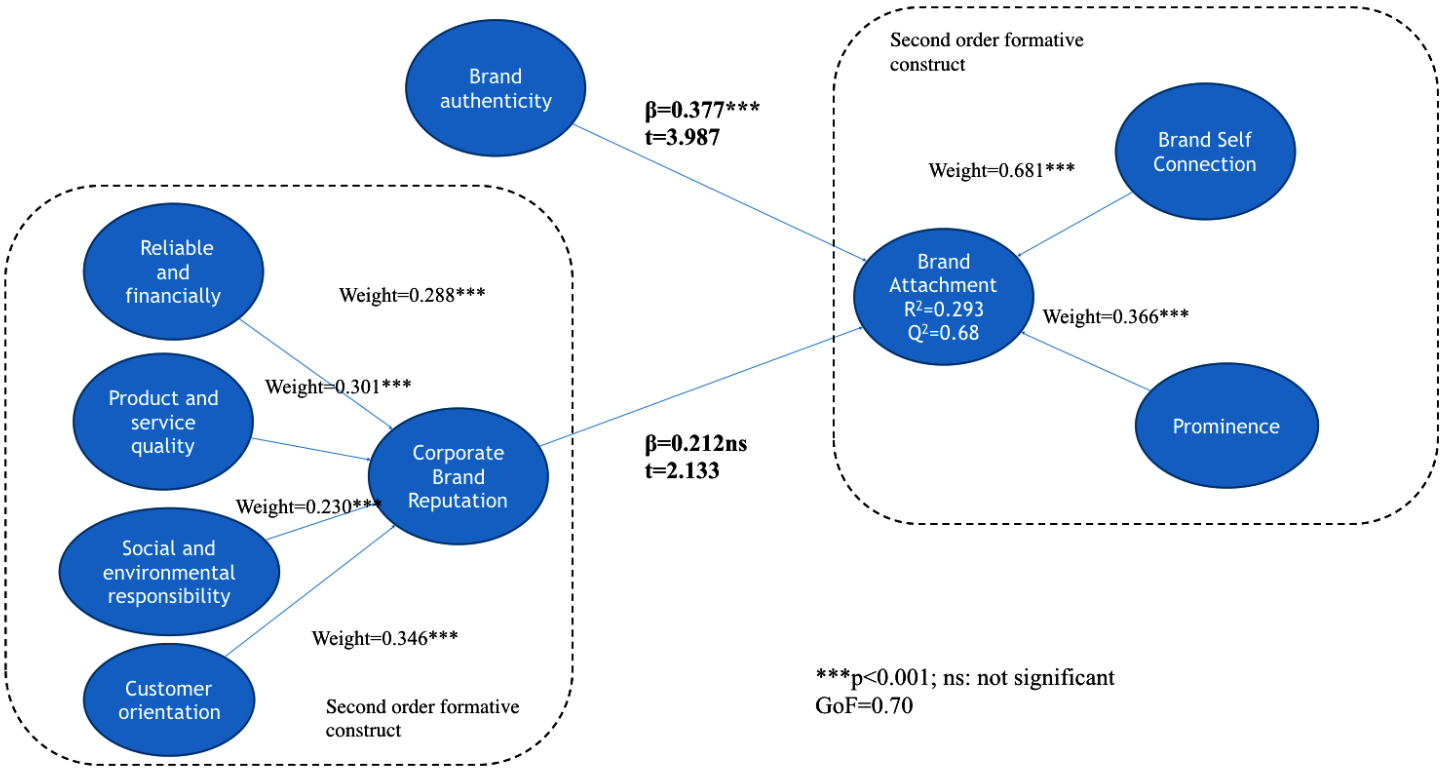
Author Elaboration

Regarding (**Table 43 - Discriminant Validity - Volvo**) we can analyse that the square root of AVE is greater than the correlation between the construct and other constructs in the model (Fornell & Larcker, 1981). Furthermore, (**Table 43 - Discriminant Validity - Volvo**) show us that the correlation between each first-order construct and the second-order construct is >0.71, meaning that they have more than half of their variance in common. (MacKenzie, Podsakoff, & Podsakoff, 2011).

4. 4. 2. Structural Model - Volvo

The conceptual model of Volvo (**Figure 10 - Structural Model - Volvo**), is showing us that the relationship between Brand Authenticity and Brand Attachment (**β=0.377, p<0.001**) is stronger than the relationship between Corporate Brand Reputation and brand Attachment (**β=0.212, p<0.001**). Moreover the measures of predictive validity such as R^2 & Q^2 should be analysed. The Q^2 value (Chi-squared of Stone-Geisser criterion) is positive and equal to **0.68**. Therefore, the relation in the model have predictive relevance (Fornell & Cha, 1994). The model is also showing us a good level of predictive power R^2 as the modelled construct explained **29.3%** of the variance in Brand Attachment. Finally we need to look at the GoF value (Good Overall Fit), (**Figure 10 - Structural Model - Volvo**) show us that Volvo GoF is equal to **0.70**, and again as Wetzels et al. (2009) suggested, a GoF greater than 0.35 in the social science field indicates a very good fit.

Figure 10 - Structural Model - Volvo



Author Elaboration

4. 5. Relationship among Brand Authenticity, Brand Reputation and Brand Attachment for Toyota Brand

Table 44 - Measurement Results - Toyota

LATENT VARIABLES	ITEMS	MEAN LV	ITEM LOADING (Reflective Measure)	COMPOSITE RELIABILITY	AVE
BRAND AUTHENTICITY	Have you that Toyota is an authentic car manufacturer?	4.6	0.969	0.966	0.934
	Can you please rank the perception you have about the level of authenticity of Toyota brand?		0.964		
CORPORATE BRAND REPUTATION		5.1		0.927	**0.516**
CUSTOMER ORIENTATION	Have you the feelings to be well treated, welcomed and received by Toyota employees team?	5.3	0.941	0.953	0.871
	Have you the feelings that Toyota employees team and staff are really concerned, involved by your concerns/questions?		0.926		
	Have you the feelings that Toyota employees team and staff are treating you fairly when you have to deal with them?		0.933		
PRODUCTS AND SERVICES	Have you the feelings that Toyota brand provide globally high quality of products and services?	5.2	0.843	0.888	0.726
	Have you the feelings that Toyota does everything it can to ensure a good overall services quality all along the customers' needs?		0.868		
	Have you the feelings that Toyota is constantly innovating new products and services to ensure to meet their customers' needs?		0.846		
RELIABILITY & FINANCE	Have you the feelings that Toyota is clearly an outperform competitors, and thus can really have huge weight on his market?	5.2	0.824	0.885	0.719

Table 44 - Measurement Results - Toyota

	Have you the feelings that Toyota brand is good at recognising and taking advantages of market opportunities?		0.824		
	Have you the feelings that Toyota brand has strong prospects for future growth?		0.894		
BRAND ATTACHMENT		4.4		0.964	0.750
BRAND-SELF CONNECTION	To what extent Toyota is part of who you are?	4.5	0.907	0.947	0.749
	To what extent do you feel emotionally bonded to Toyota?		0.877		
	To what extent is Toyota part of you?		0.930		
	To what extent does Toyota say something to other people about who you are?		0.791		
	To what extent does the word Toyota automatically evoke many good thoughts about the past, present and future?		0.830		
	To what extent do you have many thoughts about Toyota?		0.848		
PROMINENCE	To what extent are your thoughts and feelings towards Toyota often automatic, coming to mind seemingly on their own?	4.1	0.969	**0.971**	0.916
	To what extent do your thoughts and feelings towards Toyota come to mind natural and instantly?		**0.971**		
	To what extent do your thoughts and feelings toward Toyota come to mind so naturally and instantly that you don't have much control over them?		0.931		
SOCIAL & ENVIRONMENTAL	Have you the feelings that Toyota is a 'eco-friendly' company, and work to reduce its own impact on global warming?	4.4	0.865	**0.871**	0.692

Table 44 - Measurement Results - Toyota

	Have you the feelings that Toyota could be able to reduce their own profit to ensure a clean environment?		0.852		
	Have you the feelings that Toyota would be a good supports for good causes, as ONG, etc		**0.776**		

Author Elaboration

The last measurement result table is the (**Table 44 - Measurement Results - Toyota**). Item loading values are from **0.776** for Social & Environmental section, to **0.971** for Prominence. Again, the threshold of 0.707 is easily reached with indicates that over 50% of the variance in the observed variable is explained by the construct (Wetzels, Odekerden-Schroder, & Van Oppen, 2009).

Then (**Table 44 - Measurement Results - Toyota**) showing us Composite Reliability values from **0.871** from Social & Environmental item, to **0.971** for Prominence, thus all constructs are reliable since Composite Reliability values exceed the threshold of 0.7. Finally, Average Variance Extracted values are above 0.5, with a minimum of **0.516**, therefore, indicating that most of the variance of each indicator is explained by its own construct.

4. 5. 1. Discriminant Validity - Toyota

Table 45 - Discriminant Validity - Toyota

	1.	2.	3.	4.	5.	6.	7.
AVE $^{1/2}$	0.933	0.852	0.848	0.966	0.865	0.957	0.832
1. Customer orientation	1.000						
2. Product and service quality	0.586	1.000					
3. Reliable and financially	0.560	0.625	1.000				
4. B authenticity	0.451	0.454	0.421	1.000			
5. B-self connection	0.367	0.477	0.419	0.551	1.000		
6.Prominence	0.302	0.421	0.346	0.624	0.857	1.000	
7. Social and environmental responsibility	0.509	0.454	0.659	0.433	0.310	0.230	1.000

Correlation between first- and second-order construct				
	Reliable and financially	Product and service quality	Social and environmental responsibility	Customer orientation
Corporate brand reputation	0.884	0.844	0.762	0.820

Correlation between first- and second-order construct		
	Brand-Self Connection	Prominence
Brand attachment	0.980	0.942

Author Elaboration

(**Table 45 - Discriminant Validity - Toyota**) is demonstrating us that the square root of Average Extracted Variance is grater than the correlation between the construct and other constructs in the model (Fornell & Larcker, 1981). Also, (**Table 45 - Discriminant Validity - Toyota**), is showing us that the correlation between each first-order construct and the second-

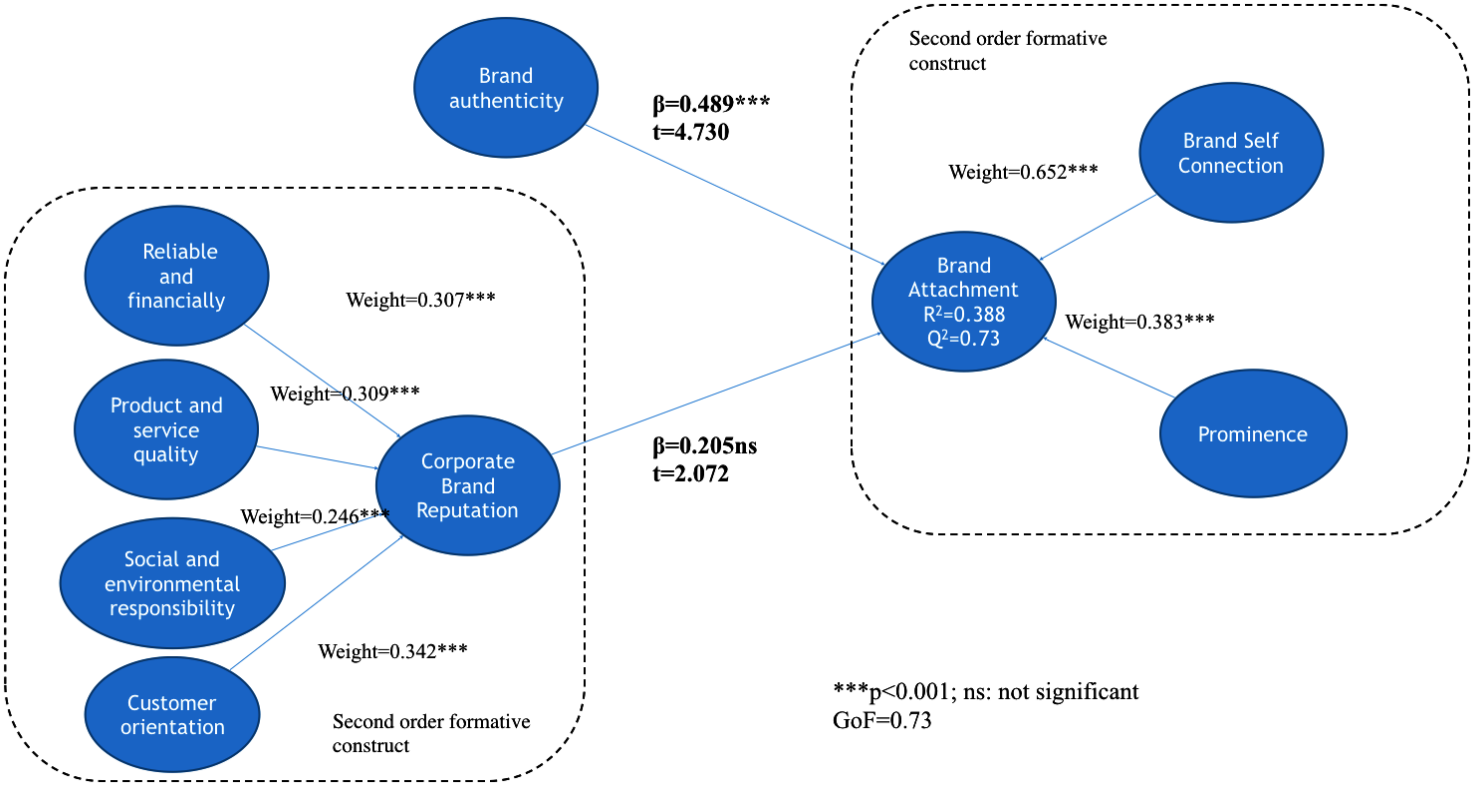
order construct is > 0.71, meaning that they have more than half of their variance in common. (MacKenzie, Podsakoff, & Podsakoff, 2011).

4. 5. 2. Structural Model - Toyota

The (**Figure 11 - Structural Model - Toyota**) shows us that the relationship between Brand Authenticity and Brand Attachment (**β=0.489, p<0.001**) is stronger than the relationship between Corporate Brand Reputation and brand Attachment (**β=0.205, p<0.001**). The measures of predictive validity such as R^2 & Q^2 should be analysed. The Q^2 value (Chi-squared of Stone-Geisser criterion) is positive and equal to **0.73**. Therefore, the relation in the model have predictive relevance (Fornell & Cha, 1994).

The model is also showing us a good level of predictive power R^2 as the modelled construct explained **38.8%** of the variance in Brand Attachment. Finally, the GoF value (Good Overall Fit), (**Figure 11 - Structural Model - Toyota**) shows us that Toyota GoF is equal to **0.73**, so the highest values from the other brand Volvo and Tesla. We can definitely say that there is a very good fit.

Figure 11 - Structural Model - Toyota



Author Elaboration

5. Conclusion, Limitations and Future Research

5. 1. Majors Conclusions

Since the beginning of the 20th century, cars' manufacturer never stop improving their products as well as making their range of products bigger, mainly by creating vehicles for each possible situation Coupé, Sedan, Utilitarian, station wagon, All Road, etc… From this time all manufacturer worldwide got new objectives beside to just create and produce new cars, the ultimate goal was to make customers loyal to a specific brand, by being different, authentic, less expensive, more reliable, safer, etc.. By this way ensure a company a good prosperity through the years. So, does corporate brand reputation and brand authenticity lead to brand attachment? Did car's manufacturers succeed in making customers truly attached into their brand?

The study was proposing to analyse the situation of three well known cars brand. Tesla,Volvo and Toyota. All have different kind of image in the car market, popular, connected, new, safe & secure, or just reliable. Therefore, what make them more popular or more represented on our roads? Do those brand are equal when facing attachment from customers?

The objectives for the project dissertation proposes were:

Firstly, to contribute to understand to what extent the corporate brand reputation variable influence customer to buy a specific car brand from another, then, try to understand to what extent the brand authenticity perception by customer influence their car purchase, and finally, understand to what extent corporate brand reputation and brand authenticity influence brand attachment variable.

To begin, findings from the study show us that on average, respondents from all the three brand seem quite satisfied by the overall products and services of the brand they purchased and use. Tesla's respondents average score on all sections of the questionnaire is equal to **5.01** out of 6, while Volvo's average score is equal to **4.85**, and finally, Toyota's one is equal to **4.75**. Meaning that Tesla's respondents seem globally more satisfied by the overall products and services delivered by the brand, while Volvo and Toyota's respondents seem being little bit less satisfied.

Major results reveal that for customers of all the three brand, answers are not considered as significantly different, except for some section as Brand Authenticity, Social & Environmental or Brand Attachment. Indeed, Social & Environmental and Brand Attachment sections are both represented as different for Toyota and Volvo brand when compared to Tesla, while Brand authenticity section is considered as different for all the three t-test tables. Meaning that customers do not have the same opinions and thoughts about the authenticity of the brand they use and drive.

Given the result in the study we can conclude that Tesla's respondents feel Tesla brand more authentic than Volvo and Toyota's respondents. So, the study reveal that only hypothesis (H1) was not confirmed, in fact there are few differences considered as significant among the three brand, as Brand authenticity or brand attachment section. Other H1 hypothesis are confirmed, so there are no significant differences for H1a, H1b, H1c and H1d. Then, H2a hypothesis was confirmed, in fact brand authenticity has positive effect on brand attachment, while H2b and H2c was not considered as confirmed, indeed brand authenticity for Volvo and Toyota brand seem to have no positive affect on brand attachment. Finally, H3a is considered as confirmed, in fact Tesla corporate brand reputation seem to has positive effect on brand attachment, while H3b and H3c are not considered as confirmed, in fact, corporate brand reputation seem to not have a signifiant positive effect on brand attachment for Volov and Toyota brand.

The findings from this study can be compared to several results from older studies. Indeed, the actual study is showing us that authenticity seems to have a more impact on one brand from another. « Authenticity need to be reach, aim to give worth to a product, even if globalisation act against that. Brands are important cultural objects » (Holt, 2002) also « a significant symbolic value » (Belk, 1988), and finally, « an important artefact of institutionalisation » (Scott, 2001). So, definitely authenticity appears to be one of the "driver" of a company competitive advantage. The present study show us how Tesla is using well the authenticity variable for its own profit. The fact that the company has the same name as Nikola Tesla, famous engineer, but also that the company is using only electric engines for all their cars, and finally has their own electric "Gas Station" for Tesla's users to recharge their cars. Hence, this make Tesla brand be authentic compared to its competitors. Beside of that, Toyota and Volvo manufacturer seem less authentic if we look at the results of the enquiry. The main difference is that those two brands are way older than Tesla, nearly 90

years. As Fombrun and Shanley, (1990) explain, « understanding the relationship between management action and institutional constraints is important, particularly for understanding the sources of authenticity because authentic images need to be constantly adapted and updated as they represent an interplay between creators, commercial interests, critics, competitors and consumers ». Thus, it is false to say that Toyota and Volvo brand are not authentic brand at all, it is just a matter of time. In fact in the middle of the 20th century the main concern for customers and drivers was certainly safety inside a car, or a big engine that can make you drive faster than previous car model. But today, customers concerns are more focus on global warming due to petrol engine that use fossil energy. As Fombrun & Shanley, (1990), explain, « authenticity need to be constantly adapted and updated to fit with customers, users or market expectations ». In other word, many brands worldwide were, are or will be considered as authentic by customers, but the hardest thing then is to keep this authenticity through years and make it as strong as possible.

5. 2. Management Implications

Given the findings of the dissertation, several managerial implications can be highlighted. In fact it is important that managers focuses on their marketing strategies, by this way ensure that customers find the product at their taste and in accordance with what they believe. There are some significant differences between all the three brand. Indeed, Tesla, Volvo and Toyota are actually not targeting the same range of customers.

Tesla is targeting people with money and that are aware about the new technologies of electric cars, but also people that care about the global warming and the need to change human habits to save the planet. Tesla should focus more on people abroad the United States, because actually customers communities are more represented there. Also, a good choice for Tesla could be to advertise more on the battery itself, in fact, the battery of the car is the main part of the electric engine, so communicate on that could be good for the company awareness. Finally, staying with a range of few car models can enhance the perception of ‘premium-luxury’ brand, therefore, a good choice when price of the vehicle is expansive.

Volvo is targeting people that want safe car, reliable vehicle that fit through the time, but also cars that are nice and smooth to drive. Thus, Volvo should keeping focus on strategies it already has, by this way attracting people and customers with money enough to buy

'premium' cars, but also attract families customers, with all the safety features they are proposing, even if, actually all the 'premium-luxury' car brand start to add high technologies safety features to their vehicle, as BMW, Mercedes or Tesla. Volvo still have a pretty well reputation on the car market, as an old car manufacturer with long history, and known as having lower price than his German competitors.

Toyota is targeting a widest range of customers than Tesla and Volvo, indeed, Toyota brand is well known worldwide for their different kind of vehicles, from Hybrid technologies, as the Prius car, to pickup truck, as the Hilux. Toyota is also known for their very reliable engines, so they should focus more on this strength to enhance their awareness. Finally, the prices of their vehicles is, in majority, very affordable compare for instance to Tesla or Volvo, and thanks to a widest range of vehicles, Toyota should really focus on the high quality of their engines.

5. 3. Limitations of the Study

This dissertation have some limitations as for all studies, there is no exception about that. The first limitation of this study concerns the sampling method, mainly because of its small size in terms of respondents, in fact, with only 327 respondents in total, the sample may be not representative of all the customer of those brands. Thus, all answers gathered for the dissertation are considered to be true and useful only in the context of the dissertation but cannot be used as reference for a real study.

Then, the second major limitation of the dissertation can be found on the questionnaire frame and the way the questions have been asked to respondents. Indeed, the use of quantitative research way combine with the use of closed answers' questions do not allow respondents to give their real thoughts about the topic under study.

Finally, the last limitation of the study is the way the enquiry has been spread, through online communities, it does not allow a direct exchange between respondents and researcher on any questions they might have, therefore may be some misunderstood questions might have been skipped because of no explanation from the researcher.

5. 4. Future Research

One of the main point for future research is definitely the sample, in fact, trying to analyse behaviours and expectations of customers in such a market need more than just few hundreds of respondents. Thus, get help for this work with specific companies that work on statistic could improve the sampling method. Moreover, the majority of the sample come from the same part of the world, United States, or Europe, but those brand are doing business in many more countries worldwide.

The questionnaire has been spread though online communities of the three brand, this way was useful and allowed to touch a lot of people, the only issue was the no-proximity of researcher with respondents. In future studies, a focus group or semi-structured interviews could be more helpful, by this way ensure that all the questions are well understood by respondents, as well as answer to all the questions they have.

Finally, a quantitative method has been used for this study with the questionnaire that has been spread through online community, so without any real contact between researcher and respondents, but, by using a group interview way, qualitative method should work. Therefore, by this way researcher can get deeper and more precise answers from respondents and thus obtain widest results.

6. References

Aaker, D. A. (1996). " ***Building Strong Brands***". New York: The Free Press.

Aaker, J. L. (1997). "Dimensions of brand personality". ***Journal of Marketing Research***, 34(3), 342-356.

Amis, J. (2003). "***Good things come to those who wait: The strategic management of image and reputation at Guinness***". European sport management quarterly, 3, 189-214.

Anair, D., Mahmassani, A. (2012). "Electric's vehicles global warming emissions and fuel-cost savings across the United States". ***Union of Concerned Scientists Journal***. 14-37.

Anderson, E. & Weitz, B.(1992). "The use of pledges to build and sustain commitment in distribution channels". ***Journal of Marketing Research***, 29(1), 18-34.

Andreassen, T. W. and Lindestad, B. (1998). "The effect of corporate image in in the formation of customer loyalty". ***Journal of Service Research***, 1, 82-92.

Anon, (2015). Available at: http://www.oica.net/wp-content/uploads//Ranking-2014-Q4-Rev.-22-July.pdf

Argenti, P. A., & Druckenmiller, B. (2004). "Reputation and the Corporate Brand". ***Corporate Reputation Review***, 6(4), 364-374.

Arnold, M., J., and Reynolds, K., E. (2003). "Hedonic shopping motivation". ***Journal of Retailing***, 79(2), 77-95.

Atanasiu, B. (2010). "The role of bioenergy in the National Renewable Energy Action Plans, Institute for European Environmental Policy". ***The Journal of Science Communication***, 163, 51-9.

Ball, A. D., & Tasaki, L. H. (1992). "The role and measurement of attachment in consumer behaviour". ***Journal of Consumer Psychology***, 1, 155-172.

Baldwin, M. W., Keelan, J. P. R., Fehr, B., Enns, V., & Rangarajoo, E. K. (1996). "Social-cognitive conceptualization of attachment working models: Availability and accessibility". ***Journal of Personality and Social Psychology***, 71, 94-109.

Bansal, H., Irving, G., & Taylaor, S. (2004). "A three-component model of customer commitment too service providers". J***ournal of the Academy of Marketing Science***, 32(3), 234-250.

Barrow, K. (2010). "Public transport - a solution for a changed world", ***International Railway Journal***, 44.

Barich, H. and Kotler, P. (1991). "A framework for marketing image management". ***Sloan Management Review***, 32, 94-104.

Batra, R., Ahuvia, A., & Bagozzi, R. P. (2012). "Brand Love". ***Journal of Marketing***, 76, 1-16.

Belk, R. W. (1988). "Possessions and the extended self". ***Journal of Consumer Research***, 15(9), 139-168.

Belk, R., W., and Costa, J., A. (1998). "The Mountain Man Myth: A Contemporary Consuming Fantasy". ***Journal of Consumer Research***, 25(3), 218.

Beverland, M., B. (2005). "Crafting brand authenticity; the case of luxury wine". ***Journal of Management Studies***, 42(5), 1003-1030.

Beverland, M., B. (2006). "The 'Real thing': Branding Authenticity in the Luxury Wine Trade". ***Journal of Business Research***, 59(2), 251-258.

Beverland, M. B., & Farrelly, F. J. (2010). " The quest for authenticity in consumption: Consumers' purposive choice of authentic cues to shape experienced outcomes". ***Journal of Consumer Research***, 36(5), 838-856.

Beverland, M. B., Lindgreen, A., & Vink, M. W. (2008). "Projecting Authenticity through advertising". ***Journal of Advertising***, 37(1), 5-15.

Bowlby, J. (1979). " **The making and breaking of affectional bonds**". London, Tavistock.

Bowlby, J. (1969). "***Attachment and loss***". Vol. 1. Attachment. London, Hogarth Press.

Boyle, D. (2003). "***Authenticity: Brands, Fakes, Spin & the Lust for Real Life***". London, Harper Collins.

Brown, S., Kozinets, R. V. & Sherry, J.F. Jr (2003). "Teaching old brands new tricks: Retro branding and the revival of brand meaning". ***Journal of Marketing***, 67(3), 19-33.

Brown, S., Kozinets, R. V., & Sherry, J. F. (2003). "Teaching old brands new tricks: Retro branding and the revival of the brand meaning". ***Journal of Marketing***, 67(3), 19-33.

Chaudhuri, A., & Holbrook, M. B. (2001). "The chain of effects from brand trust and brand affects to brand performance: The Role of Brand Loyalty". ***Journal of Marketing***, 65(2), 81-93.

Chin, W. W. (1998). "***The partial least squares approach to structural equation modelling***". In G. A. Marcoulides (Ed), Modern Methods for business, 295-336. Mahwah, NJ: Lawrence Erlbaum Associates Publisher.

CORPORATION., TOYOTA. "Toyota Global Site | Company Profile | Overview". Toyota Motor Corporation Global Website. N.p., 2016. Available at: http://www.toyota-global.com

Currie, J. Stanley, & J. Stanley (Eds), (2007). "No way to go: transport and social disadvantage in Australian communities". ***Monash University Press***, Melbourne.

Deshpandé, R. (2010). "Why You Aren't Buying Venezuelan Chocolate". ***Harvard Business Review***, 88(12).

Erdern, T. L., & Swait, J. (2004). "Brand credibility, brand consideration, and choice". ***Journal of Consumer Research***, 31(1), 191-198.

Frazier, G. L., & Lassar, W. M. (1996). "Determinants of Distribution intensity". ***Journal of Marketing***, 604(4), 39-51.

Fombrun, C. & Shanley, M. (1990). "What's in a name? Reputation building and corporate strategy". ***Academy of Management Journal***, 33(2), 233-258.

Fombrun, C. (1996). "***Reputation: Realising value from the corporate image***". Boston: Boston, Mass. Harvard Business School Press.

"Ford Closes Deal With China's Geely To Sell Volvo". MarketWatch. N.p., 2016. Available at: http://www.marketwatch.com

Fornell, C., & Larcker, D. F. (1981). "Evaluating structural models with unobservable variables and measurement error". ***Journal of Marketing Research,*** 18(1), 39-50.

Fournier, S. (1998). "Consumers and their brands: Developing relationship theory in consumer research". ***Journal of Consumer Research***, 24, 343-353.

Fullerton, G. (2003). "When does commitment lead to loyalty?" ***Journal of Service Research***, 5(4), 333-344.

Gilliland, D. & Bello, D. (2002). "The two sides to attitudinal commitment; The effect of calculative and loyalty commitment on enforcement mechanisms in distribution channels". ***Journal of the Academy of Marketing Science***, *63(3),* 34-49.

Gilmore, J. H., & Pine II, B. J. (2007). "***Authenticity: What Consumers Really Want***". Boston: Harvard Business School Press.

Gounaris, S., & Stathakopoulos, V. (2004). "Antecedents and consequences of brand loyalty: An empirical study". ***Journal of Brand Management***, 11(4), 283-306.

Grayson, K., & Martinec, R. (2004). "Consumer perceptions of iconicity and indexicality and their influence on assessments of authentic market offerings". ***Journal of Consumer Research***, 31(2), 296-312.

Greenwald, A. G., & Pratkanis, A. R. (1984). "***The self***" Handbook of Social Cognition. Hillsdale, NJ, 129-178.

Groth, M. (2005). "Customers as Good Soldiers: Examining Citizenship Behaviors in Internet Service Deliveries". ***Journal of Management***, 31(7).

Gwinner, K., & Eaton, J. (1999). "Building brand image through event sponsorship: The role of image transfer". ***Journal of Advertising***, 28(4), 47.

Hall, R. (1992). "The Strategic analysis of intangible resources". ***Strategic Management Journal***, 13(2), 135-145.

Heffner, R.R., Kurani, K.S., Turrentine, T.S. (2007). "Symbolism in California's early market for hybrid electric vehicles". ***Transport and Environment Journal***, 12, 396-413.

Hennig-Thurau, T., Gwinner, K., P., Gremler, D., D. (2002). "Understanding relationship marketing outcomes - An integration of relational benefits and relationship quality". ***Journal of Services Research***, 4(3), 230-247.

Herbig, P., & Milewicz, J.(1993). "The relationship of reputation and credibility to brand success". ***Journal of Consumer Marketing***, 10(3), 18-24.

Hill R. P., & Stamey, M. (1990). "The homeless in America: An examination of possessions and consumption behaviors". ***Journal of Consumer Research***, 17, 303-322.

Hirschauge, O. (2015). Are Driverless Cars Safer Cars?. WSJ. Available at: http://www.wsj.com/articles/are-driverless-cars-safer-cars-1439544601

Holmes, J. G. (2000). "Social relationship: The nature and function of relational schemas". ***European Journal of Social Psychology***, 30, 447-495.

Holt, D. B. (2002). "Why do brands cause trouble? A dialectical theory of consumer culture and branding" ***Journal of Consumer Research***, 26(6), 70-90.

Holt, D. B. (1998). " Does cultural capital structure American consumption?". ***Journal of Consumer Research***, 25, 1-25.

Holt, D. (2003). "What becomes an icon most?" ***Harvard Business Review***, 81 (3), 43-52.

Howard, J., & Seth, J. (1969). "***The theory of Buyer Behavior***". New York, John Wiley & Sons.

Iglesias, O., Singh, J. J., & Batista-Foguet, J. M. (2011). "The role of brand experience and effective commitment in determining brand loyalty". ***Journal of Brand Managment***, 18(8), 570-582.

Johnson, D., & Rusbult, C. E. (1989). "Resisting temptation: Devaluation of alternative partners as means of maintaining commitment in close relationship". ***Journal of Personality and Social Psychology***, 57, 967-980.

Joshi, A. & Arnold, S. (1997). "The moderating effect of relational norms on the buyer-supplier dependence-opportunism relationship". ***Psychology and Marketing Journal***, 14(8), 823-845.

Kabiraj, S., & Shanmugan, J. (2011). "Development of a Conceptual Framework for a Brand Loyalty: A Euro-Mediterranean Perspective". ***Journal of Brand Management***, 18(4/5). 285-299.

Kapferer, J. N. (2001). "***Strategic Brand Management: Creating & Sustaining Brand Equity Long Term***" , 2nd Edition. Milford, CT: Kogan Page.

Khan, M. A., & Mahmood, Z. (2012). "Impact of Brand Loyalty Factors on Brand Equity". ***International Journal of Academics Research***, 4(1), 33-37.

Koppel, S., Charlton, J.L., Fildes, B.N., Fitzharris, M., Clark, A. , Kullgren, A., Olona Solano, A., Mäkitupa, S., Ernvall, T. (2005). "***How important is 'vehicle safety' in the new vehicle purchase process?***" I REPORT of Sub-Task 4.1 I SARAC II.

"La Place De L'automobile Dans Nos Sociétés : Faits Et Chiffres - Notre-Planete.Info". Notre-planete.info. N.p., 2016. Web. Available at: https://www.notre-planete.info/ecologie/transport/placeauto.php

Lin, L. (2010). "The relationship of consumer personality trait, brand personality and brand loyalty: an empirical study of toys and video games buyers". ***Journal of Product and Brand Management***, 19(1), 4-17.

Loureiro, S. M. C., Ruediger, K. H., & Demetris, V (2012). "brand emotional connection and loyalty". ***Journal of Brand Management***, 20, 13-27.

Lundegaard, K. (2005). "Staying Alive: Auto safety has come a long way in recent years -- and still has a long way to go". ***The Wall Street Journal, Eastern Edition,*** New York, R.3.

Maali, A., 'Indiana University of Pennsylvania', Camp, R. 'Indiana University of Pennsylvania', Abel, I. 'St. Johns University', (2011), "***Competitiveness of US Automotive Industry - Past, Present and Future***", Competition Forum, 9(1).

Mano, H., & Oliver, R. L. (1993). "Assessing the dimensionality and structure of the consumption experience: Evaluation, feeling and satisfaction". ***Journal of Consumer Research***, 20, 451-466.

McKenzie, S. B., Podsakoff, P. M., & Podsakoff, N. P. (2011). "Construct measurement and validity assessment in behavioural research: Integrating new and existing techniques". ***MIS Quarterly Journal****, 35(2)*, 293-334.

Media, BioAge. "Green Car Congress: Worldwide Sales Of Toyota Hybrids Surpass 9 Million Units; Prius Family Accounts For 63%". Greencarcongress.com. N.p., 2016. Available at: http://www.greencarcongress.com

Merchant, A., & Rose, G. M. (2013). "Effects of advertising-evoked vicarious nostalgia on brand heritage". ***Journal of Business Research***, 66(12), 2619-2625.
Mick, D. G., & DeMoss, M. (1990). "Self-gifts:Phenomenological insights from four conexts". ***Journal of Consumer Research***, 17, 322-333.

Mikulincer, M., Hirschberger, G., Nachmias, O., & Gillath, O. (2001). "The affective component of the secure base schema: Affective priming with representations of proximity maintenance". ***Journal of Personality and Social Psychology***, 81, 305-321.

Milewicz, J., & Herbig, P. (1994). "Evaluating the brand extension decision using a model of reputation building". ***Journal of Product & Brand Management***, 3(1), 39.

Morton C., Schuitema G., and Anable J. (2011). "***Electric Vehicles: Will consumers get charged up***?" Universities's Study Group Conference, Open University, Milton Keynes.

Newman, G., E., and Dhar, R. (2014). "Authenticity Is Contagious: Brand Essence and the Original Source of Production". ***Journal of Marketing Research***, 51(6), 371-386.

Oica.net, (2015). Production Statistics | OICA. Available at: http://www.oica.net/category/production-statistics/

Orr Hirschauge. (2015). "Are driverless cars safer cars?", ***The Wall Street Journal***, New York.

"Our Videos - Videos : Volvo Group Global". Volvogroup.com. N.p., 2016. Available at: http://www.volvogroup.com

Park, C. W., MacInnis, D. J., Priester, J., Eisingerich, A. B., & Iacobucci, D. (2010). "Brand Attachment and Brand Attitude Strength: Conceptual and Empirical Differentiation of Two Critical Brand Equity Drivers". ***Journal of Marketing***, 74(6), 1-17.

Park, C. W., & Mittal, B. (1985). "A theory of involvement in consumer behavior: Problems and issues". ***Research in Consumer Behaviour***, 1, 201-232.

Penaloza, L. (2000). "The commodification of the American West: Marketers' production of cultural meanings at the trade show". ***Journal of Marketing***, 64(10), 82-109.
Peterson, R., A. (2005). "In Search of Authenticity". ***Journal of Management Studies***, 42(5), 1083-1098.

Postrel, V. (2003). "***The Substance of Style: How the Rise of Aesthetic Value is Remaking Commerce, Culture, & Consciousness***". New York: Harper Collins Publishers.

Price, L. & Arnould, E. (1999). "Commitment friendships: Service provider-client relationship in context". ***Journal of Marketing***, 63(4), 38-56.

PR Newswire, (2001). "Safety takes a back seat when shopping for a new car". New York.

Robert, N., & Thatcher, J. (2009). "Conceptualising and testing formative construct: Tutorial and annoyed example". ***Database for Advances in Information Systems****, 40(3)*, 9-39.

Rogerson, W. P. (1983). "Reputation and product quality". ***Bell Journal of Economics***, 14(2), 508-516

Roth, Martin S. & Romeo, Jean B. (1992), "Matching Product Category and Country Image Perception: A framework for Managing Country-of-Origin Effects", ***Journal of International Business Studies***, 23(3), 477-97.

Savvanidou E., Zervas E., Tsagarakis K.P. (2010). "Public acceptance of biofuels", ***Energy Policy Journal***, 38, 3482-3488.

Schouten, J. W. & McAlexander, J. H. (1995). "Subcultures of consumption: An ethnography of the new bikers". ***Journal of Consumer Research***, 22, 43-61.

Schultz, S. E., Kleine, R. E. & Kernan, J. B. (1989). "These are few of my favourite things: Towards attachment as a consumer behavior construct". ***Advances in Consumer Research***, 16, 359-366.

Scott, W. R. (2001). "***Institutions and Organizations***" 2nd Edition. Thousand Oaks, CA: Sage Publication.

Sheppard, B. H., Hartwick, J., & Warshaw, P. R. (1988). "The theory of reasoned action: A meta-analysis of post research with recommendations for modifications and future research". ***Journal of Consumer Research***, 15, 325-343.

Spence, M. (1973). "Job market signalling". ***Quarterly Journal of Economics***, 87(8), 355-374.

Stern, B. (1994). "Authenticity and the textual persona: Postmodern paradoxes in advertising narrative". ***International Journal of Research in Marketing***, 11(4), 387-400.

Sutikno, B. (2011). "Does consumers' brand identification matter: The marketing roles of brand loyalty". ***The International Journal of Interdisciplinary Social Sciences***, 6(3), 1833-1882.

"Tesla Model S Crossed 100,000 Sales Milestone This Month - Hybridcars.Com". HybridCars.com. N.p., 2015. Available at: http://www.hybridcars.com/

"Tesla Motors Company - Annual Report". Ir.tesla.com. N.p., 2016. Web. Available at: http://ir.tesla.com/secfiling.cfm?filingid=1564590-16-13195&cik=

The Economist, (2011). If only there were an alternative to cars. Available at: http://www.economist.com/blogs/freeexchange/2011/03/externalities

The Volvo Group Annual Report, (2014). Available at: http://www.volvogroup.com/group/global/en-gb/investors/reports/annual_reports/Pages/annual_reports.aspx

Times, Los. "Ramping Up Production Of Affordable Tesla May Take Years, Elon Musk Says". latimes.com. N.p., 2016. Available at: http://www.latimes.com

Volvocars.com, (2015). Volvo Cars France - voiture haut de gamme par excellence | Volvo Car France. Available at: http://www.volvocars.com/fr

Volvo Car Group, Financial report, (2013). Available at: https://www.media.volvocars.com/global/en-gb/download/141372

"Volvo Goes To China: Will Its Tradition Of Safety Go With It?". Cbsnews.com. N.p., 2016. Available at: http://www.cbsnews.com

"Volvo Hints At C90 Coupe By 2020". Autoweek. N.p., 2016. Available at: http://autoweek.com

Wallendorf, M. & Arnould, E. J. (1988). "My favorite things: A cross-cultural inquiry into object attachment, possessiveness and social image linkage". ***Journal of Consumer Research***, 14, 531-547.

Walsh, G. and Beatty, S., E. (2007). "Customer-based reputation of a service firm: Scale development and validation". ***Journal of the Academy of Marketing Science***, 35, 127-143.

Walsh, G., Dinnie, K., and Wiedman, K.-P., (2006). "How do corporate reputation and customer satisfaction impact customer defection?. A study of private energy customers in Germany". ***Journal of Service Marketing***, 20(6), 412-420.

Wetzels, M., Odekerten-Schroder, G., & Van Oppen, C. (2009). "Using PLS path modelling for assessing hierarchical models: Guidelines and empirical illustration". ***MIS Quarterly Journal****, 33(1)*, 177-195.

Wiswall, K., Parrillo, N., Walters, D., Chawla, D., Punchak, N., Punchak, N., Freenock, D., Davis, C., Cook, J., Rinfret, S. and Livermore, M. (2015). Safety Standards Make an Impact | RegBlog. Regblog.org. Available at: http://www.regblog.org/2015/03/25/wiswall-safety-impact/

Yetano Roche M., Mourato S., Fischedick M., Pietzner K., Viebahn P., (2010). "Public attitudes towards and demand for hydrogen and fuel cell vehicles", ***The International Transport Forum***, Energy Policy, 38, 5301-5310.

Zeithaml, V. (1988). "Consumer perceptions of price, quality & value: A means-end model and synthesis of evidence". ***Journal of Marketing,*** 52(7), 2-22.

7. Appendixes

Table A - Tesla - Sample Profile - I

GENDER	FREQUENCY	PERCENT
MALE	111	93,3 %
FEMALE	8	6,7 %
TOTAL	119	100 %

Table A - Tesla - Sample Profile - II

AGE	FREQUENCY	PERCENT
-20	3	2,5 %
20/30	13	10,9 %
30/40	23	19,3 %
40/50	46	38,7 %
50/60	26	21,8 %
+60	8	6,7 %
TOTAL	119	100 %

Table A - Tesla - Sample Profile - III

HOUSEHOLD SITUATION	FREQUENCY	PERCENT
DIVORCED	4	3,4 %
MARRIED	79	66,4 %
SEPARATE	4	3,4 %
SINGLE	30	25,2 %
WIDOWED	2	1,7 %
TOTAL	119	100 %

Table A - Tesla - Sample Profile - IV

JOB SITUATION	FREQUENCY	PERCENT
EMPLOYED	48	40,3 %
RETIRED	8	6,7 %
SELF-EMPLOYED	60	50,4 %
STUDENT	3	2,5 %
TOTAL	119	100 %

Table A - Tesla - Sample Profile - V

LIVING LOCATION	FREQUENCY	PERCENT
ASIA	2	1,7 %
EUROPE	101	84,9 %
NORTH AMERICA	16	13,4 %
TOTAL	119	100 %

Table A - Volvo - Sample Profile - I

GENDER	FREQUENCY	PERCENT
MALE	97	94,2 %
FEMALE	6	5,8 %
TOTAL	103	100 %

Table A - Volvo - Sample Profile - II

AGE	FREQUENCY	PERCENT
-20	4	3,9 %
20/30	14	13,6 %
30/40	26	25,2 %
40/50	39	37,9 %
50/60	15	14,6 %
+60	5	4,9 %
TOTAL	103	100 %

Table A - Volvo - Sample Profile - III

HOUSEHOLD SITUATION	FREQUENCY	PERCENT
DIVORCED	6	5,8 %
MARRIED	66	64,1 %
SEPARATE	4	3,9 %
SINGLE	27	26,2 %
TOTAL	103	100 %

Table A - Volvo - Sample Profile - IV

JOB SITUATION	FREQUENCY	PERCENT
EMPLOYED	48	46,6 %
RETIRED	7	6,8 %
SELF-EMPLOYED	41	39,8 %
STUDENT	7	6,8 %
TOTAL	103	100 %

Table A - Volvo - Sample Profile - V

LIVING LOCATION	FREQUENCY	PERCENT
ASIA	2	1,9 %
EUROPE	86	83,5 %
NORTH AMERICA	14	13,6 %
ASIA, NORTH. AM.	1	1 %
TOTAL	103	100 %

Table A - Toyota - Sample Profile - I

GENDER	FREQUENCY	PERCENT
MALE	96	91,4 %
FEMALE	9	8,6 %
TOTAL	105	100 %

Table A - Toyota - Sample Profile - II

AGE	FREQUENCY	PERCENT
-20	4	3,8 %
20/30	24	22,9 %
30/40	28	26,7 %
40/50	38	36,2 %
50/60	7	6,7 %
+60	4	3,8 %
TOTAL	105	100 %

Table A - Toyota - Sample Profile - III

HOUSEHOLD SITUATION	FREQUENCY	PERCENT
DIVORCED	8	7,6 %
MARRIED	61	58,1 %
SEPARATE	4	3,8 %
SINGLE	32	30,5 %
TOTAL	105	100 %

Table A - Toyota - Sample Profile - IV

JOB SITUATION	FREQUENCY	PERCENT
EMPLOYED	58	55,2 %
RETIRED	5	4,8 %
SELF-EMPLOYED	25	23,8 %
STUDENT	16	15,2 %
UNEMPLOYED	1	1 %
TOTAL	105	100 %

Table A - Toyota - Sample Profile - V

LIVING LOCATION	FREQUENCY	PERCENT
ASIA	3	2,9 %
EUROPE	78	74,3 %
NORTH AMERICA	22	21 %
SOUTH SEA ISLAND	2	1,9 %
TOTAL	105	100 %

Questionnaire Example - The example of the questionnaire below is the Tesla one, Toyota and Volvo's one follow exactly the same frame.

« Tesla car manufacturer seen by customers »

Goulwen Le Bellego, ISCTE Business School, Master in Marketing.

I am a student from the Master in Marketing of the ISCTE Business School and I need your opinion to help me in my master thesis. My thesis objectives consists on analyzing how is Tesla really seen by their customers or future prospects. It is for that reason I am realizing online questionnaire in order to collect data regarding Tesla's target consumer behavior, what customers really think about the brand, what would he change to improve Tesla's products and services.

All answers will be treated confidentially and anonymously. Your collaboration is essential for the conclusion of my thesis. Thank you very much for your availability and participation. the questionnaire takes around five minutes to complete.

*Obligatoire

PART I. Tesla in general

The questions below are 'scale-answers' made, so on a scale from 1 to 6, where 1 is 'completely disagree' and 6 is 'Completely agree', how would you rank your feelings about the following questions ?

Have you the feelings that Tesla is clearly an outperform competitor, and thus can really have huge weight on his market? *

	1	2	3	4	5	6	
Completely disagree	○	○	○	○	○	○	Completely agree

Have you the feelings that Tesla brand is good at recognizing and taking advantages of market opportunities ? *

	1	2	3	4	5	6	
Completely disagree	○	○	○	○	○	○	Completely agree

Have you the feelings that Tesla could be able to reduce their own profit to ensure a clean environment ? *

	1	2	3	4	5	6	
Completely disagree	○	○	○	○	○	○	Completely agree

Have you the feelings that Tesla would be a good supports for good causes, as ONG, etc… *

	1	2	3	4	5	6	
Completely disagree	○	○	○	○	○	○	Completely agree

PART II. Customers oriented

The following questions have been created for Tesla's car users, owners, or persons that are willing to buy a Tesla car, so if you are not, go straight to PART III.

When you visit a Tesla place, which may be a garage, dealership, exhibition, etc… and you have to speak with someone of the staff…

Have you the feelings to be well treated, welcomed and received by Tesla employees team ?

	1	2	3	4	5	6	
Completely disagree	○	○	○	○	○	○	Completely agree

Have you the feelings that Tesla employees team and staff are really concerned, involved by your concerns/questions?

	1	2	3	4	5	6	
Completely disagree	○	○	○	○	○	○	Completely agree

Have you the feelings that Tesla brand has strong prospects for future growth ? *

	1	2	3	4	5	6	
Completely disagree	○	○	○	○	○	○	Completely agree

Have you the feelings that Tesla brand provide globally high quality of products and services? *

	1	2	3	4	5	6	
Completely disagree	○	○	○	○	○	○	Completely agree

Have you the feelings that Tesla does everything it can to ensure a good overall services quality all along the customer relationship? *

	1	2	3	4	5	6	
Completely disagree	○	○	○	○	○	○	Completely agree

Have you the feelings that Tesla is constantly innovating new products and services to ensure to meet their customers' needs? *

	1	2	3	4	5	6	
Completely disagree	○	○	○	○	○	○	Completely agree

Have you the feelings that Tesla is a 'eco-friendly' company, and work to reduce its own impact on global warming? *

	1	2	3	4	5	6	
Completely disagree	○	○	○	○	○	○	Completely agree

Have you the feelings that Tesla employees team and staff are treating you fairly when you have to deal with them?

	1	2	3	4	5	6	
Completely disagree	○	○	○	○	○	○	Completely agree

Have you the feelings that you are really committed to Tesla car brand?

	1	2	3	4	5	6	
Completely disagree	○	○	○	○	○	○	Completely agree

Have you the feelings that your relationship with Tesla company means a lot to you?

	1	2	3	4	5	6	
Completely disagree	○	○	○	○	○	○	Completely agree

Have you the feelings that, if Tesla car company would disappear, it would be a loss for you?

	1	2	3	4	5	6	
Completely disagree	○	○	○	○	○	○	Completely agree

Have you the feelings that, by your actions or behavior, you are a truly loyal customer of Tesla company?

	1	2	3	4	5	6	
Completely disagree	○	○	○	○	○	○	Completely agree

Have you the feelings that you have a good overall relationship with Tesla company?

	1	2	3	4	5	6	
Completely disagree	○	○	○	○	○	○	Completely agree

Have you the feelings that you will certainly remain a customer of Tesla company ?

	1	2	3	4	5	6	
Completely disagree	○	○	○	○	○	○	Completely agree

Have you the feelings that Tesla is a authentic car manufacturer?

	1	2	3	4	5	6	
Completely disagree	○	○	○	○	○	○	Completely agree

Can you please rank the perception you have about the level of authenticity of Tesla brand

	1	2	3	4	5	6	
Very low	○	○	○	○	○	○	Very high

Based on your past experience with the firm, how likely are you to…

Talk to friends about Tesla brand, their products or services?

	1	2	3	4	5	6	
Not likely at all	○	○	○	○	○	○	Very likely

Help or explain to others customers some knowledges they don't have about Tesla's products or services?

	1	2	3	4	5	6	
Not likely at all	○	○	○	○	○	○	Very likely

Provide informations when you are surveyed by the company?

	1	2	3	4	5	6	
Not likely at all	○	○	○	○	○	○	Very likely

Provide helpful feedbacks to customers services?

	1	2	3	4	5	6	
Not likely at all	○	○	○	○	○	○	Very likely

Inform the company about the products and services provided?

	1	2	3	4	5	6	
Not likely at all	○	○	○	○	○	○	Very likely

For the following questions, please rank from 0 out of 5....

To what extent is Tesla part of you and who you are?

	1	2	3	4	5	6	
Very low	○	○	○	○	○	○	Very high

To what extent do you feel emotionally bonded to Tesla?

	1	2	3	4	5	6	
Very low	○	○	○	○	○	○	Very high

To what extent is Tesla part of you?

	1	2	3	4	5	6	
Very low	○	○	○	○	○	○	Very high

To what extent does Tesla say something to other people about who you are?

	1	2	3	4	5	6	
Very low	○	○	○	○	○	○	Very high

To what extent are your thoughts and feelings towards Tesla often automatic, coming to mind seemingly on their own?

	1	2	3	4	5	6	
Very low	○	○	○	○	○	○	Very high

To what extent do your thoughts and feelings towards Tesla come to your mind natural and instantly?

	1	2	3	4	5	6	
Very low	○	○	○	○	○	○	Very high

To what extent do your thoughts and feelings toward Tesla come to mind so naturally and instantly that you don't have much control over them?

	1	2	3	4	5	6	
Very low	○	○	○	○	○	○	Very high

To what extent does the word Tesla automatically evoke many good thoughts about the past, present, and future?

	1	2	3	4	5	6	
Very low	○	○	○	○	○	○	Very high

To what extent do you have many thoughts about Tesla ?

	1	2	3	4	5	6	
Very low	○	○	○	○	○	○	Very high

PART III. Data sheet

What is your gender? *

- ☐ Male
- ☐ Female

How old are you? *

- [ ] - 20
- [ ] 20/30
- [ ] 30/40
- [ ] 40/50
- [ ] 50/60
- [ ] + 60

What is your martial status? *

- [ ] Married
- [ ] Widowed
- [ ] Divorced
- [ ] separated
- [ ] single

What is your job position ? *

- [ ] employed for wages
- [ ] self-employed
- [ ] Student
- [ ] Homemaker
- [ ] Retired
- [ ] unemployed

Where do you live? *

- [ ] Europe
- [ ] Asia
- [ ] North America
- [ ] South Sea Island
- [ ] South America
- [ ] Africa