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A Market Analysis of a Car-Sharing Business in Brazil

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Disruptive and innovative business are changing the way we see, interpret and connect with the world. This thesis carried out a market analysis on a car-pooling service that was launched in Brazil in 2015. The focus areas for this analysis were on the host country political and economic scenario, customer behaviour and shared-economy trends.

The conceptual framework was based on Ghauri's Internationalization Planning Process and marketing models such as Porter's Five Forces and Humphrey's SWOT Analysis will be the foundations to identify the key elements to this market analysis.

Based on the results of the market analysis, the study showed that when it comes to building a peer-to-peer community, trust was the key concern for the majority of interviewees. In addition, the study showed that improvements on socio-economic scenario, such as higher consumer power and downsides on logistics infrastructure such as transportation services availability and shared-economy trends have a positive impact, since it enables the services to take place, creating affordable options and narrowing the gap on the market.

Shared-economy ideas have been developed in the course of the last century and boosted in the year's 2000 in Europe and US thanks to platform and community concepts, connectivity availability and mobile usage. Unfortunately, emerging economies are still struggling with basic character values such as trust and commitment to be shared within a society. Although the gap on inequality, which is the foundation to build those values, is narrowing between social classes, it is still a big challenge to be overcame. So much so, that the company aim to triple the number of users in Brazil in 2017 and start applying their commission fee formula, applicable only when a specific volume of trips is achieved, meaning that users' adoption reached the next level of maturity. It seems that shared-economy becomes possible when society in an individual basis becomes better, when trust in each other again.

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1. Introduction

1.1 Overview

In this introductory part, this work objectives and a brief introduction to the background and business context analysed will be addressed. The main objective of this work is to deliver a market analysis for a disruptive carpooling service launched in an emerging country. This work is grounded in three pillars: host country socio and economic current situation, shared-economy trends and customer behaviour.

Founders of the most famous shared-economy business from our time, have the same macroeconomic background: 2008 crisis when buying power decreased and the burdens of ownership arose. Their ideas were born out of giving others easy and cheap access to products and services that would otherwise go unused or idly, sharing costs, plus reducing environmental footprint specially in services like transportation. In addition, bringing social benefits, like community building and narrowing inequalities.

On the other hand, scepticals worldwide advocated that those kinds of services would lower wages, raise housing costs, undermine health and safety rules, and expose women to harassment and assault. In 2015 a Harvard Business Review issue even headlined "The Sharing Economy isn't about sharing at all." But are we moving from a sceptical point of view to a supportive one, once more and more individual's reputation is based on a digital peer-to-peer evaluation? You don't ask about other's people opinion about certain people, you google it!

The notion of sharing and the term has been used at least since 1978, when an academic paper called "Community Structure and Collaborative Consumption" was published and the focus was car sharing. Nowadays, those services are possible thanks to mobile connectivity and mobile apps supported by cloud computing.

Mindset, platform and free sign up in place seems to be the sweet spot for any members who wants to join the community. Security is key to users and it has been improved significantly year after year. Everything seems to be in place and ready to blast.

In emerging countries, more than any other developed country, the potential to shared-economy in transportation services is massive. A colossal mass of users, lack of public reliable transportation, the urge to make commuting better and affordable or make leisure travels more accessible are positive factors for any shared-economy company to go for it.

However, before investing on a new country, a dedicated market plan to analyse this new country should be put in place. This work aims to analyse a new market where a shared-economy mobility service was launched in 2015, a French platform of shared rides called Bla Bla Car.

For the referred market analysis, the Professor in International Business at the University of Birmingham and author of International Marketing (4th edition), Pervez N. Ghauri was the main reference for this work. In the section dedicated to International Marketing Strategies (Chapter 9), the author suggests a planning process to deliver an International Marketing Plan when expanding business abroad.

In this work, besides the focus areas are on host country analysis towards its political and economic scenario, customer behaviour and shared-economy trends, it is also tackled mobility market, competitors and pricing strategy. Ghauri's planning process is the framework presenting the foundations to the big picture as well as to key findings and market forecast.

1.2 Business Challenges

Business challenges when conquering this new market are related to many constraints in its macro environment such as broad territory size, driver profiles and lifestyle, private vehicle ownership and fleet availability, lack of public transportation and lack of trust in peer-to-peer mobility providers.

1.3 Case Company

Bla Bla Car, a car pooling company, will be the case company to be referred in this thesis. All information about their strategy, company figures and marketing plan are from public domain and/or published by the company's executives in company's website or from

their social media accounts such as LinkedIn, Facebook and Twitter. I was authorized to refer to the company and its public information without any restrictions. References are provided at the end of this thesis' document.

1.4 Objectives and Scope

Main objective is to deliver a market analysis focusing on host country factors such as political and economic scenario, customer behaviour, mobility market, competitors and pricing strategy. As mentioned before, marketing and internationalization processes frameworks will support and guide the analysis providing current state analysis, key findings and market key indicators forecast.

Bla Bla Car is one of the first mobility peer-to-peer service provider in Brazil, making room for a drastic change in people´s mindset and in a near future impacting in the country's peer-to-peer economy figures. This first impression and observation is based on a global trend on disruptive peer-to-peer services which are on a mature stage in regions such North America and Europe.

Some research questions orient this work: how open customers are to adopt disruptive services? How to convince users to use the service? How to build trust among them? Possible answers will be addressed throughout this work while doing the market analysis, where a brief conclusion summaries country's most important high-level indicators and customer profile.

1.5 Key Terms

Key terms are related to IT terms and marketing: sharing economy, peer-to-peer economy, mobility, carpooling, internationalization, Brazil, market analysis, disruptive technology, developing country, consumer behaviour.

1.6 Thesis Outline

This work aims to develop the topic on a market analysis for a car sharing business in a developing country. The proposal of this work is to analyse this market and provide insights on economic, political and behavioural aspects to this new market.

The research questions are focused on customer openness to adopt disruptive services and how to make them loyal to those services. How we can change user mindset so he can benefit from business models never tried before.

The goal is to focus in market analysis of the host country utilizing market and internationalization process frameworks to assess and analyse main factors when launching a shared economy mobility service in a developing country.
Research approach and supporting material is based in Ghauri's Strategic Marketing and more specifically in its section Phase 1 – Preliminary analysis and screening where environmental uncontrollable, company character and screening criteria are presented.

More specifically, this thesis aims to address the host country constraints as embedded in the framework. Some items addressed by the author such as structure of distribution will be tackled in 4. Market Analysis: dimensions and key findings. A detailed research approach follows section 2.2 Research Design.

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2. Method

2.1 Research Approach

The research approach in this thesis is based on one case study. Case Study Research is an inquiry that focuses on describing, understanding, predicting, and/or controlling the individual (i.e., process, animal, person, household, organization, group, industry, culture, or nationality) according to Woodside (2010, p.1). This definition is intentionally broader than the definition that Yin (1994, p. 13) proposes:

A case study is an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident.

In business internationalization processes, case studies research approach addresses better the need of understanding a new environment and as evoked above by Yin and phenomena events as disruptive services contextualizing them according to customer's habits and behaviour.

2.2 Research Design

As desired as an output in this thesis, a literature review and definition of research design are crucial to orient the sequence of findings and support a market analysis. The conceptual framework originated from literature review will be the main tool.

Objective
Deliver a market analysis

Market Analysis and Forecast
Analysis, insights, forecast

Literature
Conceptual framework

Current State Analysis
Understanding new market
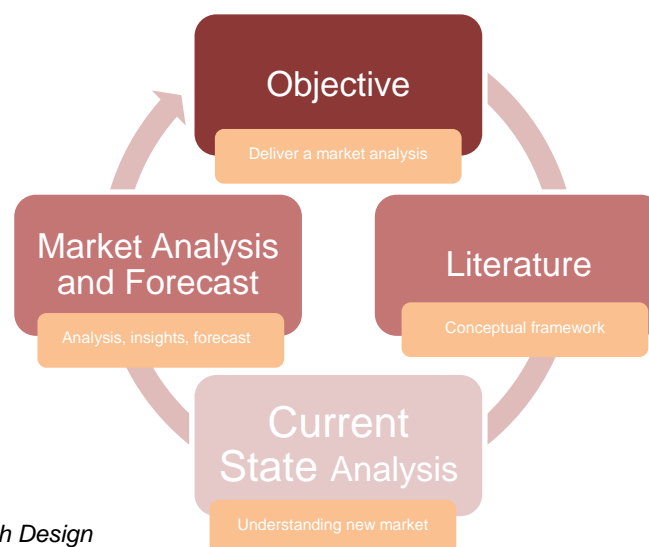
Figure 0: Research Design

The literature review was based on theories of marketing and tactics applied to internationalization and online services. The selected framework is better addressed in Chapter 3. Conceptual Framework.

2.3 Data Collection and Analysis

Data collection is done in a high-level scenario which is mainly gathering microenvironment indicators data to support current state analysis and set the dimensions to key findings and market forecast.

Data Type	Data Provider	Data Format	Data Frequency	Release Year	Highlights
Economic Analysis	World Bank	Reports	Annual Report	2016	Brazilian main economic figures (historical)
Economic Analysis	World Bank	Reports	Annual Report	2016	Brazilian main economic figures (forecast)
Economic Analysis	Trading Economics	Charts	Historical Chart	2016	Automobile economic drivers
Socioeconomic Analysis	World Health Organization	Reports	Annual Report	2016	Socioeconomic figures (historical)
Political and Legal Analysis	Government Official Press, Media	Press Releases, Economy Analysis	On demand	2016	political and legal analysis and its impact in the economy
Geographic Analysis	Statista	Reports	Annual Reports	2016	Geographic figures
Infrastructure Analysis	Brazilian Federal Government	Presentation	Multiannual Planning	2016	Program of Investments in Logistics 2015-2018
Behavioural Analysis	Mc Kinsey & Company	Report	Consultancy Report	2016	Brazilian consumer profile
Behavioural Analysis	Deloitte	Report	Consultancy Report	2016	Automotive consumer study
Behavioural Analysis	Price Water House Coopers	Report	Consultancy Report	2016	Emerging markets characteristics
Corporate/Business Analysis	Price Water House Coopers	Report	Consultancy Report	2016	Sharing economy analysis
Consultancy Analysis	Ernst Young Terco	Report	Consultancy Report	2016	Sustainability forecast

Table 1: Data Collection and Analysis

2.4 Validity and Reliability

According to Columbia University Validity and Reliability can be defined as the primary criteria when evaluating any measurement or observation: whether when measuring what is intended to measure and whether the same measurement process yields the same results.

Validity refers to the extent we are measuring what we hope to measure (and what we think we are measuring) and reliability is concerned with questions of stability and consistency – does the same measurement tool yield stable and consistent results when repeated over time.

To apply these concepts to social research, we want to use measurement tools that are both reliable and valid. We want questions that yield consistent responses when asked multiple times - this is reliability. Similarly, we want questions that get accurate responses from respondents - this is validity (Columbia, 2002-2003).

From this thesis perspective, validity and reliability can be checked within a couple of years after some service maturity when the same survey can be a source of behavioural changes (adopter, resistant), also for some customer profile mapping purposes (i.e. earlier adopters in areas populated > 500k inhabitants, commuters > 1.5h, play roles as driver and passenger).

3. Conceptual Framework

3.1 Ghauri's Strategic Marketing Plan

The referred framework presented in Chapter 2.2 – Research Design was chosen, among other reasons because, the author dedicated his research and design of a framework that is applied to online businesses and internationalization and cope with current and future issues on Marketing strategies.

In its fourth edition, International Marketing (International Marketing, 2014) analysis globally management practices of companies, disregarding their size however willing to become a multinational player. It grounds the Marketing strategy in its corporate strategy, their goals for a specify market, therefore positioning the product/service, understanding customer segmentation, branding and product life cycle strategies as well as the market environment (Ghauri, International Marketing, 2014, p.196).

Figure 1: The International Planning Process (modified from Ghauri, International Marketing, 2014, p. 204)

In this thesis outline and objectives, we stated that our main focus is on market analysis. In this sense, scope is limited to Phase 1 Preliminary analysis and screening (host country constraints).

In addition, the book explores the role of emerging economies and their impact and share in business environment. A holistic perspective what involves changing market structures and its substitutive products and rivals, as well as understanding culture glances in different markets.

Since the key deliverable of this work is to deliver a market analysis, the author has several case studies which disclosure lessons learnt and promote understanding of the application of market studies and analysis for a specific business. Besides that, it presents an up to date concepts in Marketing and Business Administration and its application in assessment and development of new business.

Some other authors from late 90's and 2000's have been analysed, however most of them tackle business models based in tangible products and traditional service proposition rather than disruptive services, shared economy and technology. Ghauri represents today one of the main authors combining tangible products and services in physical and digital marketplaces.

3.2 Overall Objectives

The objectives of the literature which supports this work is to provide a sustainable roadmap from concept to realization of a Strategic Marketing Plan. In line with the objectives of this work, observe that this framework will be used partially since the output of this thesis consists solely of the preliminary phase where the host country is deeply analysed, thus a market analysis is delivered.

The framework firstly suggests the identification of the international marketing strategy. Defining operational concept is the very first assumption that will lead to set marketing strategy. Considering this work objectives, the operating concept of multi domestic market – which is defined by the author as where each market is seen as culturally unique and an adapted marketing mix for each country is developed – is applied.

To consolidate the differences on marketing approaches, the author underlines the concepts of Global x International Marketing Management, where the first assumes that the

world is one market and its foundation relies on identifying targeting cross-cultural similarities. The second, International Marketing Management approach focus on cross-cultural differences and believes that each foreign market requires its own cultural and adapted marketing strategy (Ghauri, International Marketing, 2014, p. 186).

Some assumptions embedded in the International Marketing Management will be the starting point to the market analysis. The conceptualization of the key terms is described as below as per the author, stating key elements of International Marketing Management:

Product Life Cycle – usually products or service are in different stages of the life cycle in each nation / market;

Design and Adaptation – just some adjustments are made in the original product/service;

Market Segmentation – segments reflect differences. More customized markets. Acceptance of regional/national differences;

Competition – national competition and in shared services, possibility of ready-to-market competitors;

The Consumer – aiming to understand and have a customized solution applied to its culture;

Product – in online platforms, differentiation can be done thru its web interface, customer service, adaption of features and functions and easy language;

Promotion - national product image, sensitive to national needs.

Based on the concepts above, the book suggests a market analysis and a strategic marketing plan are based on international marketing management put their efforts on cultural differences analysis and product/service adaptation to deliver a plan that achieves its goals on brand awareness and reputation, as well as company's financial goals such as low operation costs and high sales/commission revenue.

Contrarily to international marketing concept, the globalization of markets and products/services concept can be advantageous when promoting a brand which is unique

and easily recognizable. Brand recognition accelerates and enhance new products/services sales pitch and promote fast adoption, increasing advertising awareness and influence. No wonder companies mentioned by the author such as IBM, Samsung and Ericsson benefit from brand awareness and reputation switching strategies every now and then from global to local, from market-driven versus market-driving strategies. Their brand recognition around the globe allows a more diverse strategy application, without losing credibility of their brands.

Having said that, the main objective of the referred literature (Ghauri, International Marketing, 2014, Chapter 9) is to understand the big picture, analyse the market and compare strategies to better meet its needs. The objectives of this work are to develop a market analysis anchored by the author's work where main indicators on this new market will be addressed further in Chapter 4.

3.3. Market Analysis Focus

The theoretical roots of international market analysis can be traced to two complementary streams of research in business economics: (1) marketing concept and market orientations studies, and (2) studies in the internationalization process of firms. (Kuada, International Market Analysis, 2008, Chapter I).

The focus on market analysis to identify current and emerging customer needs and gain insight into marketing strategy needed to achieve the goals of the complementary streams mentioned above. A clear observation of factors and trends should be assessed, analysed and gathered to support strategic decisions in contemplation of achieving goals on profitability, recognition or either as the first strategic mover to change the role industry.

The more complex the operational environment is, the more critical market information becomes for successful business operations. Thus, Kohli and Jaworski (1990:6) define marketing management to embrace " the organisation - wide generation of market intelligence, dissemination of this intelligence across departments and organisation - wide responsiveness to it ". That is, market - oriented firms are expected to gather, interpret and use market information in a more systematic, thoughtful and anticipatory manner. (Kuada, International Market Analysis, 2008, Chapter I).

These scholars see market orientation in terms of functional activities that specific units of organizational performance.

Hence a customer - oriented marketing management is based on market analysis which provides firms with a better understanding of customer needs, expectations, behaviours as well as their current and lifetime value to the firm. (Kuada, International Market Analysis, 2008, Chapter I).

3.4 Market Analysis Objectives

Customer - oriented firms channel information quickly to various functional areas of the organisation (sales, marketing, production, finance etc.) and thereby strengthen firms' ability to interact more effectively with their customers. Knowledge is the key to nurturing customer relationships and information is the main input in customer knowledge generation (Lavender 2004). (Kuada, International Market Analysis, 2008, Chapter I).

A couple of main objectives presented by the author are towards generating superior value and providing customer satisfaction. A concept from scholars in the 1990 named these objectives as "responsiveness component to market knowledge". The two sets of activities that ground this component is (1) responsive design (using market intelligence to develop plans) and (2) responsive implementation.

This means that responsiveness involves developing, designing, implementing, and altering products and services in response to customers' current and future needs. (Kuada, International Market Analysis, 2008, Chapter I).

In this work, it is addressed exclusively one market intelligence activity which is to the market analysis. An immersion on the host country oriented by the service characteristics (peer-to-peer, online, multiply providers, etc.), sector characteristics (mobility, available infrastructure, safety, etc.) and behavioural and cultural profile.

4. Market Analysis: dimensions and key findings

4.1 Current State Analysis

When it comes to the expansion of new markets and internationalization, an evaluation of potential markets in the first step in the planning process. A critical first question is the international planning process is deciding in which country should an investment be made. In this context, a Current State Analysis is related to a company´s strengths and weakness, products, organizational culture and objectives which must be achieved within a new market as well as its limitations and growth potential.

This process supports investment decisions and set criteria that must be fulfilled to achieve certain goal. Ghauri proposes analyzing company objectives, resources and other corporate capabilities and limitations as well as minimum market potential, minimum profit, return on investment, acceptable competitive levels, and standards of political stability, acceptable legal requirements and other measures (Ghauri, International Marketing, 2014, Chapter 9).

Some authors believe that current state analysis should include external environment analysis where a company plans to operate in, including sector and country macro environment analysis, in the case of internationalization.

To better analyze the Current State Analysis in a shared economy company which service is dedicated to sharing rides and optimizing car utilization, I will underpin my analysis in the International Planning Process, Phase 1 - Preliminary Analysis and Screening (Ghauri, International Marketing, 2014, page 204).

Its Phase 1 concept is based on having the big picture from both company and external environment segmented by three groups of analysis: company character, home country constraints and host country constraints. For this current state analysis, only items concerned to company and host country will be covered in this chapter.

4.1.1 Company character

4.1.1.1 Objectives

Company's main objective was to launch a platform in order to share long distance rides sharing costs, no profit, being present in as many countries as possible fostering the concept of sustainability and trust.

Key concepts to support company's objectives:

Ridesharing: Bla Bla Car connects drives who have empty seats with people travelling in the same direction. The ride together and split the costs of the journey.

Trusted community: Bla Bla Car is a trusted community, where members have declared identities and profiles, and use a community rating system. They choose with whom they want to travel with.

Long distance travels: members offer city-to-city or country-to-country rides, for an average distance of 342 km. The company is not a player in short taxi covered distances.

Sharing costs, no profit: drivers who have already planning a journey, offer to share the costs with the passengers willing to travel towards the same destination. Passenger contribute to the cost of the journey. Driver cover costs of the trip, but do not make profit. The maximum fare per passenger, and number of seats, is capped.

4.1.1.2 Resources

In the last two years, the company raised funds from investment companies such as Index Ventures, Accel Partners, Lead Edge, Isai and Vostok New Ventures, a sum over USD 300 million and company´s market value estimated in 3.2 billion. Initially fundraising was only USD 0.6 million in 2009. Labour force is more than 300 employees in 12 offices mainly in Europe.

Figure 2: Fundraising France, Europe, World (Bla Bla Car, 2015)

4.1.1.3 Organisation

Bla Bla Car is a global company (standardize business model concept) following a marketing management orientation which has some characteristics from a multinational company (market customization concept). Regarding product lifecycle, it is quite simple and customers worldwide can utilise and expect roughly the same product and performance. Its web interface design follows also the same patterns.

The market segmentation is quite similar in all countries which enables expansion of segments into worldwide proportions. New entrants' competition is low and company's brand is strong and have outstanding reputation in the car sharing market. Regarding system development, they have an in-house IT department with high specialized employees. Platform new releases and features are released frequently, downtime rate is low and the company invests in high level standards on customer service.

Price or commission is standardized which means that their monetizing formula is being tested and applied in all the countries where the model is applicable. To better explain monetization system when launching the service in a new country, the first months of implementation are free of commission and later on the possibility of applying commission based on distance: initially 150km and gradually reduced according to the maturity of the market. Commissions, so called service fee, as an example, in U.K can be charged as much as a fixed fee plus a 9.9% service fee of the price asked by the driver (Bla Bla Car, 2016, FAQ).

4.1.1.4 Financial Limitations

Due to recent investments, financial limitations are not an issue in a short/medium term, however investments are directly connected to community size, travel availability, number of passengers and carbon emission savings.

4.1.1.5 Management and Marketing skills

Some different business models were tested such as B2B platform for commuting purposes and some other studied i.e. monthly subscriptions. Finally, one to one transactional process was approved which is address better each member needs (either driver or passenger).

Advertisement guerrilla strategy was tested but not approved due to insignificant returns on brand awareness and service adoption. Marketing campaigns are mainly online and in public transportation spots such as metro and interregional bus stations. Some activities with members take place in "real life" such as meeting with members in bars, summer festivals, tours to promote the service and to evaluate customer satisfaction.

A new concept of marketing evangelist material called Age of Trust was implemented in 2016. Shared economy companies are creating their own material to ensure service conception understanding since there is lack of literature and marketing strategies dedicated to disruptive services which is relatively new and customer behaviour data is unknown or insufficient. The upside is that disruptive business can be content providers and they can experiment new approaches eventually gaining sympathy and trust from users. Introductory page states that is about to guide the strategy: "Bla Bla Car's core mission is to create a global people-powered travel solution, connecting drivers with empty seats to passengers looking for a ride over long-distance journeys." (Entering the Trust Age report, Bla Bla Car, 2016).

The new report developed by the company in exchange with some experts' contributions is a perfect new concept of implementing their strategy in a smoothly way: selling the concept of trust. The initial barrier to a shared service is the apprehensions and resistance, especially in a carpooling service, when sharing the same space for a longer time than 30 minutes with a stranger. The global strategy is towards building trust.
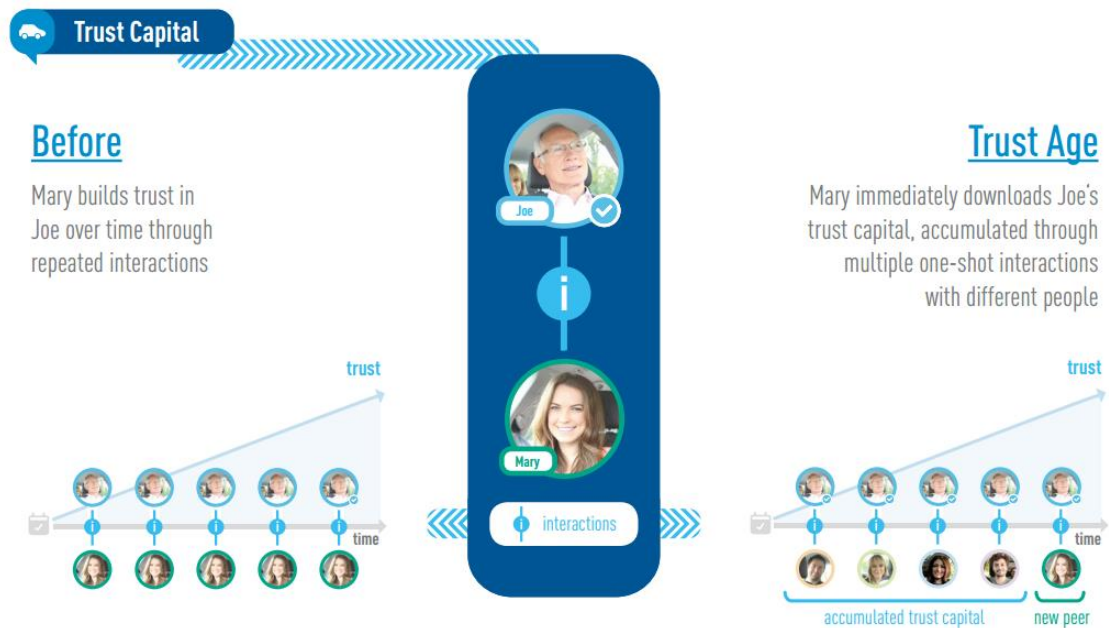
Figure 3: Trust Capital (Entering the Trust Age report, Bla Bla Car, 2016)

Besides the core strategic concept, the company have designed a framework to define its operational concept in order to build the so desired trust community. Their D.R.E.A.M.S framework is based on six pillars (Entering the Trust Age report, Bla Bla Car, 2016):

D. Declared information is the foundation of a trusted online profile. It is the information that is volunteered by the user, telling the community a bit more about themselves. No-one trusts a stranger, so this is the first essential step in moving away from anonymity towards online trust. Members can declare their name, age, preferences, and give a description of themselves in their own words.

R. Rated Ratings allow for the aggregation of feedback from objective third parties. Ratings have been largely democratised by online services like eBay or TripAdvisor, but collaborative platforms ask users to rate one another after having shared higher-stakes experiences than ever before, "in real life", offline. This enables people to build valuable peer-reviewed reputations and create interpersonal trust in a community.

E. Engaged In order to feel completely comfortable transacting with a fellow user of a sharing service, you need to believe that the other party is fully engaged, and will honour their commitment. Collaborative platforms that allow members to financially commit to a transaction ahead of the experience, via a pre-payment service, create trust through engagement. This is the sole parameter in the D.R.E.A.M.S. framework that is geared towards future interaction. It links past information to future commitment.

A. Active Members of a collaborative service depend on each other to provide the goods or service to which the platform is dedicated. That's why it's vital to enable a reactive exchange between them, ensuring that the transaction progresses smoothly from initial interest to realisation. To do this, information about the level and frequency of a user's activity must be provided to the other party in a transaction, for example publishing the number of rides and including statements such as "Laura will aim to reply within 3 hours". M. Moderated All information transferred by users of a sharing service must be third-party verified, whether this is the verification of contact or bank details or the approval of User-Generated Content. Users need to know that everything they see online meets a required level of goodwill and authenticity, as ensured by the third party providing the sharing platform.

S. Social networks allow users to connect their identity with their existing online identity, be it socially via Facebook, or professionally via LinkedIn. Connecting a profile with other existing social networks will allow a person to leverage their existing online presence to create trust.
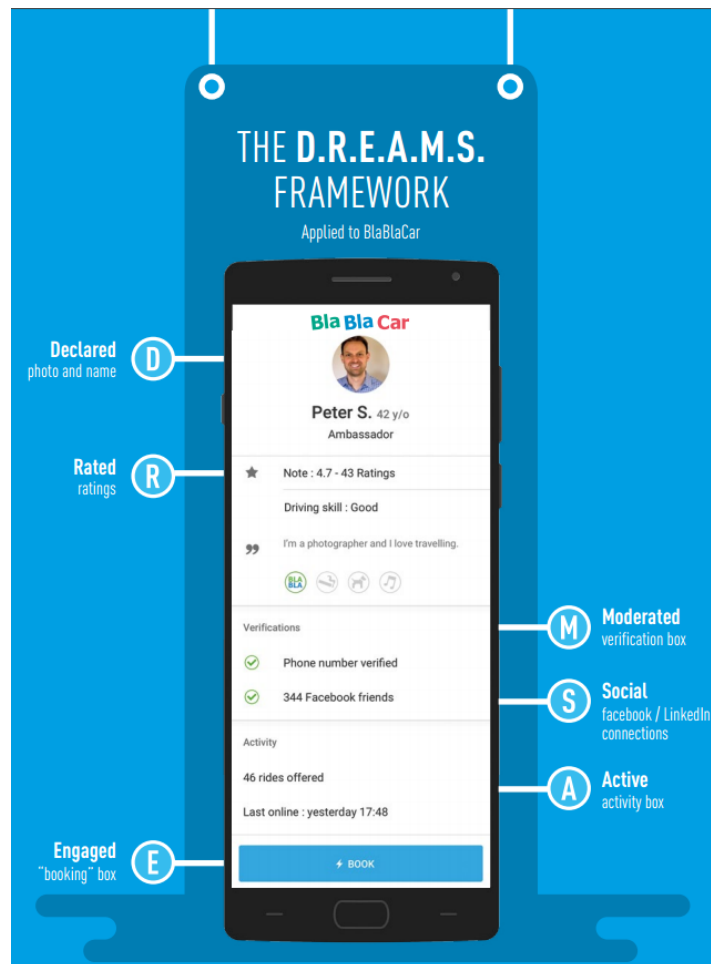
Figure 4: D.R.E.A.M.S Framework (Entering the Trust Age report, Bla Bla Car, 2016)

Considering the operational concept and framework designed, the concept is applied to multi markets although some nuances are treated to better meet its cultural uniqueness and generate better adoption and customer's loyalty.

Some concepts collected from the company's report impressions towards marketing terms:

Product Life Cycle – carpooling life cycle follows the virtuous cycle of trust and collaboration which differs from one market to another. In pioneer countries, such as France, Spain and Germany the service is mature and adopted, while for the last comers such as India, Mexico and Russia, service is being consolidated and behaviour is starting to change.

Design and Adaptation – the product (web interface) has the same visual characteristics to all markets but some additional features to guarantee trust is added according to each market. Declared information is the key for trust in a new market. The more you know about the other, the more you trust her/him. Besides that safety, characteristics indicators in the profile (ratings, trustworthy photos and names, response rate, verified documentation) can increase potential car sharing deals.

Market Segmentation – the attention in an international marketing management is towards the differences that a specific market can bring. Customization on this carpooling service is relatively low and as mentioned in Design and Adaption term, customization is mainly towards user profile information.

Competition – the company has an advantage in the sector towards its brand and as the first big player comer to the targeted market. It has acquired smaller competitors and informal competition such as Facebook carpooling groups face issues when it comes to true and information verification. Although technology is fully available for new comers.
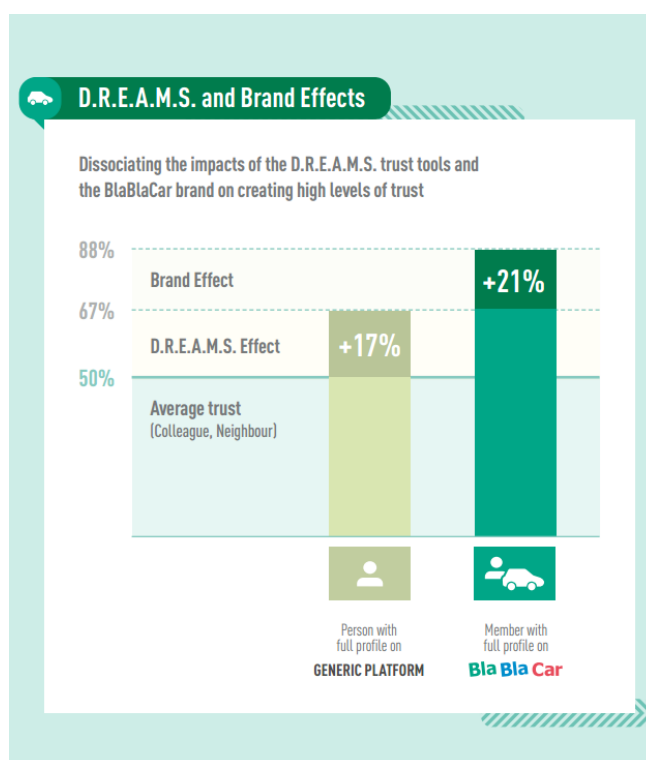

Figure 5: D.R.E.A.M.S. and Brand Effects (Entering the Trust Age report, Bla Bla Car, 2016)

The Consumer – the barriers for its adoption lies mainly in the targeted market habits. As a disruptive service, its concept may scare most of the potential users since it is completely unusual, in some cases unsafe, and the concept of lack of resources transformed into abundancy and saving is it still too new. They would adopt if many securities issues are solved, the members are fully trustworthy and the application has is in conformity to its expectation and has a friendly and easy interface. Some community demographics to better analyse the customer profile and business strategies: 60% are men, the average age is 29 years old and 47% is over 30 years old, 72% are employed members and 21% students.

Product – as mentioned before, friendly user interface and its performance are the key for the product development in the targeted market. In addition a customer service excellence boost brand awareness and sentiment towards the company.

Promotion – the brand has already a readable and understandable concept and its design is open and positive. This is an advantage considering the targeted market of this thesis. Besides that, the company tries to associate human images in the website which have the same characteristics as the population of the country. Visual and verbal identification are crucial to create empathy and to narrow distances between the potential user and the disruptive service besides initial mistrust and refusal.

4.1.1.6 Products

As previously explained in the characteristic of the organisation, the product has global characteristics and customization by country is mainly concerning payment methods which can vary from online booking (payment with online methods: credit cards or Pay-Pal), on board booking (based on points account balance) and direct booking (direct payment - in cash). Only the first method allows the company to monetize thus applying commission. A special attention to accreditation of users is the key issue for the targeted market. Specific modifications in the security of the platform and sign in will be better addressed in the next sections.

In shared economy scope of services which can be divided in 4 categories: mutual aid, cost sharing, good amortization and professionalization, the company is placed in cost sharing only.

4.1.2 Political and Economy Scenario

4.1.2.1 Brazilian Political Outlook 2016-2017

For the last couple of years, Brazil is facing a turmoil in its political scene due to corruption scandals involving among others politicians, the former president, Luiz Ignacio Lula da Silva (2003-2010). Besides that, a federal accounting court filed a criminal accusation towards Luiz Ignacio's sponsored candidate and president in charge, Dilma Rousseff (2011-2016), of "cooking the government's book" which initiated an impeachment trial and culminated in her eviction in August 2016.

The current president in charge, Michel Temer (2016-), has 28 months to understand Brazilian problems and deal with the worst slump in its economy in decades. His main challenge is to restore growth and lay the groundwork for future prosperity (The Economist, 2016).

Despites the pessimism sentiment due to corruption schemes allegations by the end of 2015, the confidence in the business sector has raised after the new president came into power in August 2016. Predictions on the reasons why a brighter future is possibly ahead focus on a better administration and Temer's political background and experience.

Son of immigrates from Lebanon that came to Brazil during World War I period, Temer and his family have been settled in a rural area in Brazil. Youngsters were sent off to the capital of Sao Paulo, where later on Temer graduated in Law. In the following years, he became a professor and director of a Law University besides being the author of a few law and politics books. His political career started in 1970 in a regional level and in 1981 he affiliated to the Brazilian Democratic Movement Party (PMDB) opening path to national recognition and high influential roles such as President of the Chamber of Deputies, President of National Party (PMDB) and finally elected in 2010 as Brazilian Vice-President.

Brazil: Business climate index from November 2015 to November 2016
(50 = neutral)
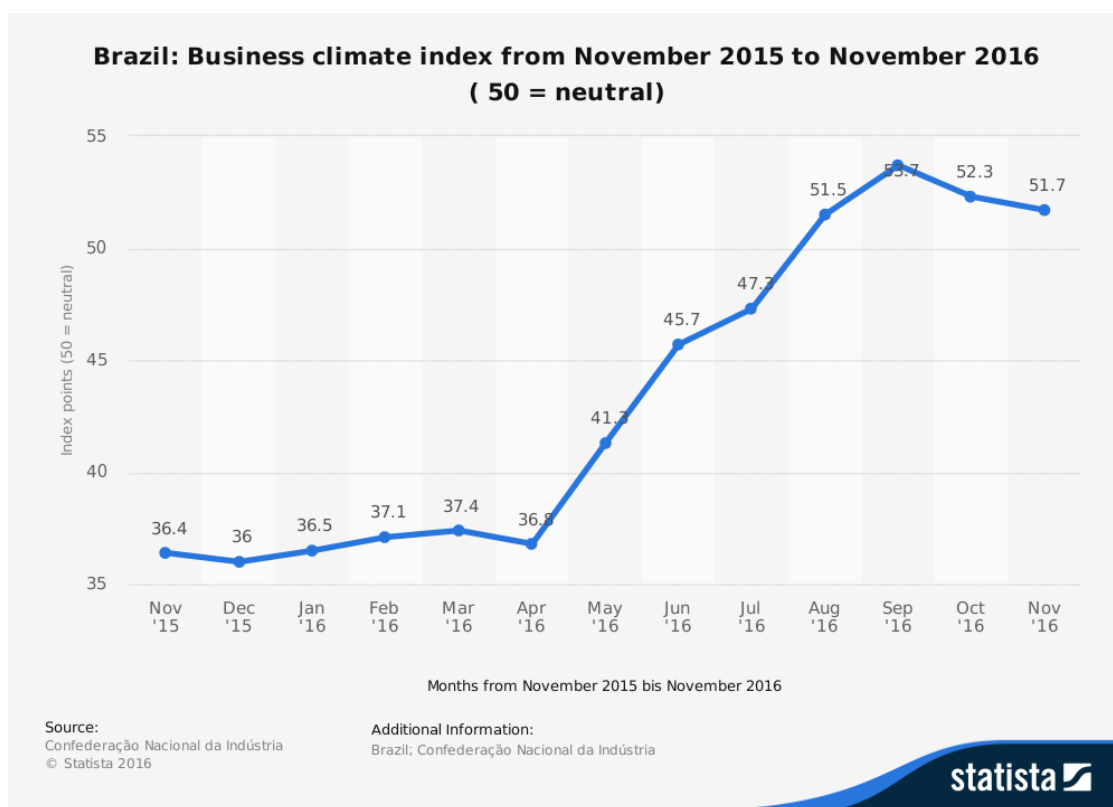
Figure 6: Brazil: Business climate index from November 2015 to November 2016 (Statista)

4.1.2.2 Brazilian Economy Indicators 2016-2017

According to Ball, McCulloch, Frantz, Geringer and Minor (International Business, 2004) listed the most important economic indicators to take into consideration to general economic aspects for internationalization process but only a few is likely to be applied in shared economy business such as gross domestic product (GDP), gross national income (GNI), distribution of income, inflation rate, private consumption expenditures and personal ownerships of goods. For a better understanding, a short definition on each indicator and its importance to the car sharing business is provided.

Gross National Income (GNI) is the total of all final goods and services produced, and Gross Domestic Product (GDP) are the values used to measure an economy's size. According to The World Bank in 2014 Brazilian GNI and GDP per capita was around USD 11.500. But how it affects the internationalization economics analysis?

Usually GDP high growth rates call attention to business when evaluating a new market or country. It is only the initial step according to the authors. They suggest that the comparison of the purchasing power of a nation in an individual basis should be done, that is, decision makers need to know among how many people GNI or GDP is divided.

It will show the official buying power per capita and their real possibility of a new product/service adoption following their prioritization on their needs. Also, one important aspect raised by the authors is that a high growth rate in GDP is more likely to attract investments than a high GNP/capita but a low growth rate.

Concerning this economic indicators Brazil has a high attractiveness even though forecast real GDP growth is either negative or very low for the next couple of years: -2,5% (2016f), 1,4% (2017f) and 1,5%(2018f), according to the World Bank – Global Economic Prospects.
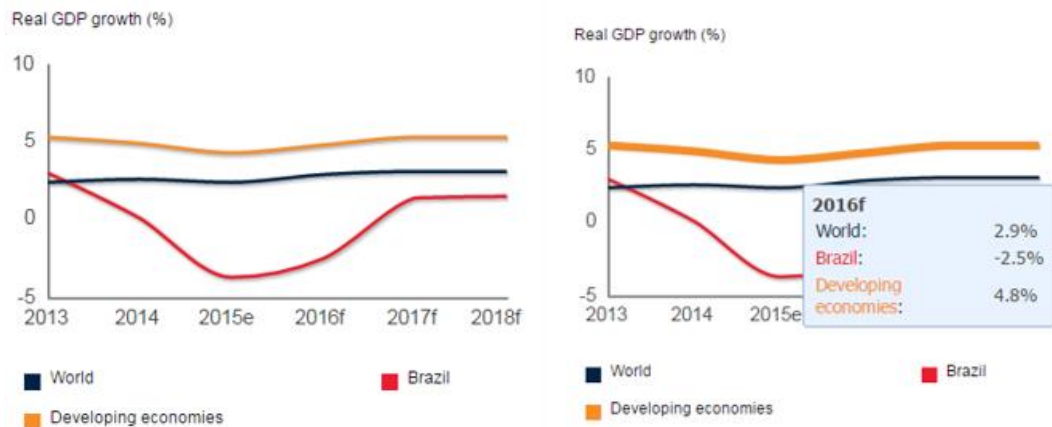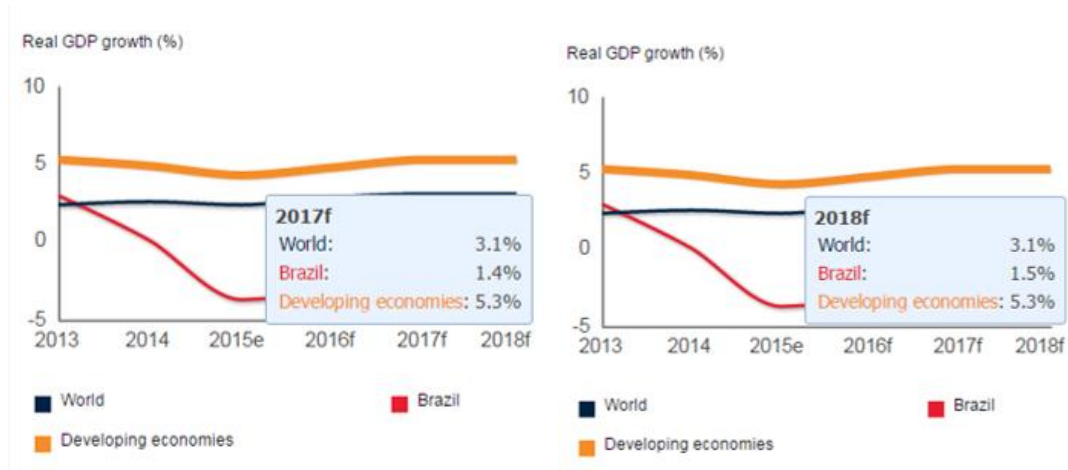
Figure 7, 8, 9 and 10: Real GDP growth (%): World, Developing economies and Brazil (World Data Bank Generate Custom Dataset, GDP, Brazil, Developing Economies, World)

In a car sharing business this indicator can have a positive impact, since the acquisitions of new goods (cars) are not likely to happen and car owners is willing to share costs of the good they already have. Furthermore, fuel prices and car maintenance costs is likely to raise in a slow recovery economy.

The next indicator income distribution confirms that income is more evenly distributed in richer nations, although there is an important variation among both developed and developing countries, according the authors. As published in by World Bank (International Business, The challenge of Global Competition, page 238, table 7.2) in 2000, numbers from 1996 shows a concentrated income in the Highest 20 percent ($ 63.800) and Highest 10% percent ($ 47.600) been ten times more that the average among the Lowest 20 percent, 20-40 percent and 40-60 percent.

Volatility in Brazil can be explained by domestic factors such as:

- the extent of mismanaged populist policies

- corruption scandal

- president's impeachment

- significant spending on higher pensions

- tax breaks to industries

And external factors:

- drop in global commodity prices

- Higher dollar exchange rate, thus higher US dollar-denominated debt

- Large-scale capital outflows, thus pressure in local currency

- Lower investors' appetite

- Extreme environment conditions (floods, mudslides, El Nino phenomenon)

A recent article ran by the World Economic World released in September 2015 states that Brazil is instead of following the global trend of widening gaps between poor and rich, they have reduced poverty and inequality in the last two decades although the gap remains five times as wide as in developed economies. Some specific factors according to the article are responsible for this reduction, specially employment and labour compensation, basic services and infrastructure and fiscal transfers.
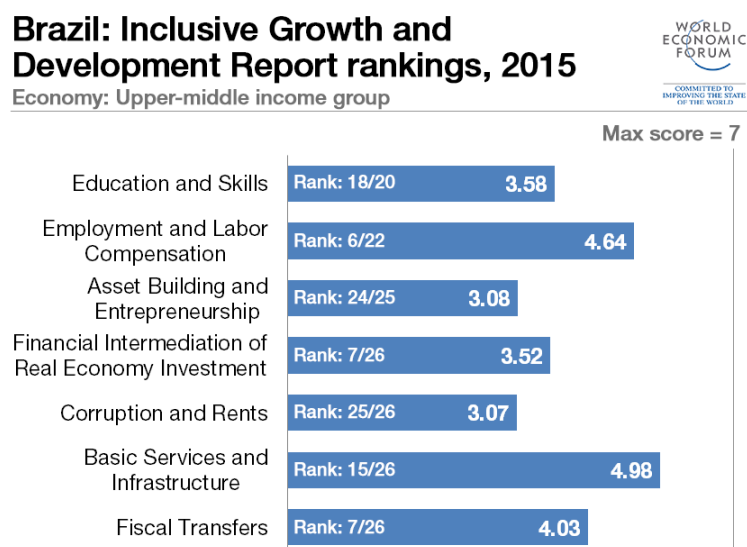
Figure 11: Brazil: Inclusive Growth and Development Report rankings, 2015 (World Economic Forum, is Brazil making progress on inequality?, September 2015)

According to the article, changes in wages and employment contracts impacted 72% in the reduction of inequality rates between 2001 and 2012. Although financial systems are

one of the most strong and important indicator, it is still difficult to break through entrepreneurial business and tax-related paperwork is one of the hardest barrier to overcome. Additionally, informality is still a big issue as many people derive their income from small business or self-employment but there is still lack of culture of entrepreneurial.

Among upper-middle class economies, as classified by The Inclusive Growth and Development Report 2015 (World Economic Forum, 2015), Brazil is in the 15th of 26th position on basic services and infrastructure which is related to energy supply, transport and telecommunications. These factors are considered prerequisites to connect individuals to market and translate this connection into GDP growth and enhance their living standards.

A growing middle class with access to more products and services can be beneficial to shared economy businesses. In the peer-to-peer transportation sector, this can be translated as, more availability of a service, more providers involved, thus wider range of travels and sharing opportunities.

Additionally, these indicators upsides are associated to employment and equality of wages and downside in respect to informality. Strong banking systems impacts directly in the availability of loans and specially car leasing which is a very popular credit line in Brazil. Regarding basic services and infrastructure, investments in roads foster the dynamics of the business in terms of car sharing offer, broader coverage in terms of itineraries and changing society habits in a national perspective.

Private consumption expenditures, according to authors is the manner which consumers allocate their disposable incomes (after-tax personal income) between purchase of essential and nonessential goods.
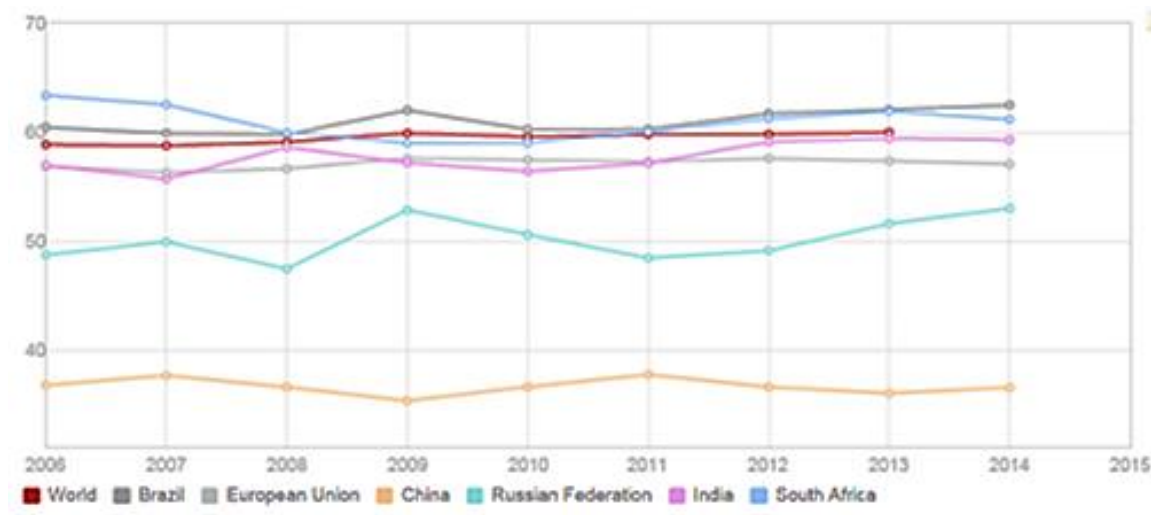
Figure 12: Household final consumption expenditure, etc. (% of GDP) (World Data Bank)

According to World Data Bank historical data on household final consumption expenditure, which by definition, includes the purchase of durable products such as cars, washing machines and home computers. In this sense, compared to BRICS countries and European Union, Brazil has the highest percentage of household final consumption expenditure which is above 60% of PDP.

Regarding personal ownership of goods - or consumption of key goods and service - indicator, it has a important feature to be analysed, since loans and car leasing are popular when planning to buy a car in Brazil. According to Reuters, already in the first semester of 2015 bank credits to purchase cars was about 2.712 million cars, trucks and motorcycles a drop down of 10.6% from the same period in 2014. Nearly half of total numbers to new vehicles. Besides that, new cars sales in Brazil plunged around 20% in the first semester of 2015 compared to same period in 2014.

Additionally, to these factors, according to the article, the largest banks in Brazil have reduced available loans for car buyers after credit blast in the beginning of the decade, consequently impossibilities to comply with debts, conducting to soaring defaults and repossessions. A total reduction of 10% in loads in mid-2015 compared to end of 2013, from R$195 billion to R$176 billion. According to The World Health Organization, Brazil has a total number of registered cars of around 64 million, one car per three inhabitants.

In a car sharing business these indicators can be positive since buying cars are more likely to happen due to economic, cultural factors and lack of transportation offer. Bank availability for loans also contributes to foster car sharing culture.

4.1.2.3 Brazilian Infrastructure Figures 2016-2020

According to The Planning Department of the Federal government in Brazil and its Program of Investment in Logistics (PIL) launched in 2015 a huge investment and process of modernization is transportation infrastructure is will take place from 2015 to 2018 (R$ 69.2 billion) and from 2019 on (R$129.2 billion). A total of R$ 198.4 billion which R$66.1 billion will be dedicated to roads, the second biggest investment after R$86.4 billion dedicated to railways.

Investments are mainly raised thru concessions thru auctions and financing led by the Brazilian Development Bank (BNDES) and commercial banks and capital markets. Main goals are to road expansion and duplication and signalling.
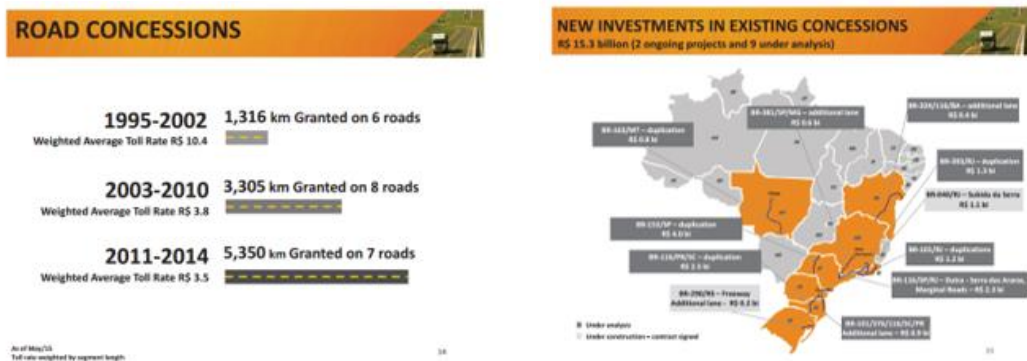

Figure 13: Brazil: Road Concessions (Ministério do Planejamento, Brazilian Government, June 2015),
Figure 14: New Investments in Existing Concessions (Ministério do Planejamento, Brazilian Government, June 2015)
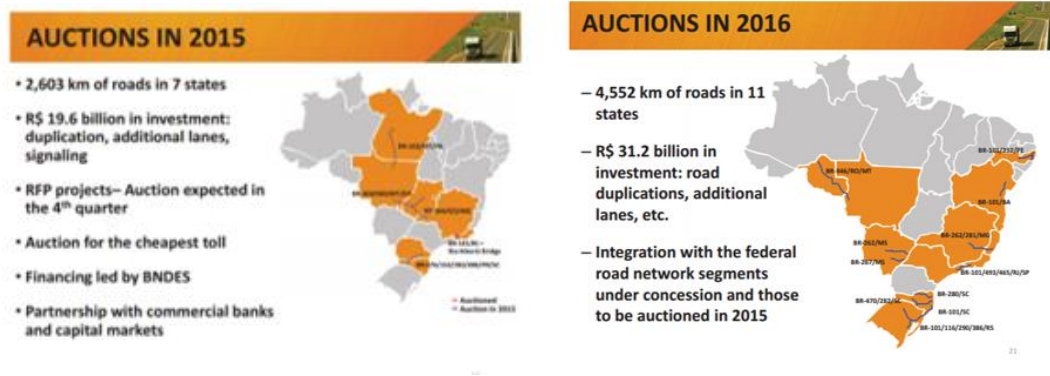
Figure 15: Auctions in 2015 (Ministério do Planejamento, Brazilian Government, June 2015)
Figure 16: Auctions in 2016 (Ministério do Planejamento, Brazilian Government, June 2015)

Besides heavy investments are being made in the sector, Brazil ranks 120th of 144th countries for the quality of its infrastructure (World Economic Forum, 2015). The figures above also reconfirm the needs of foreign capital to fix long term issues.

A previous trial of improving the lack of infrastructure occurred in 2012, when only one-fifth of the original amount of concessions was taken by private-investment sector. Not surprisingly these investments were targeting most lucrative concessions: main airports in Sao Paulo and Rio de Janeiro. Railways and port terminals offers found no bidders.

Touching motorways, the government was willing to sell the rights to operate 4.400 kilometers by the end of 2016. Motorways still look more appealing to investors rather than railways. According to an infrastructure expert at Fundacao Dom Cabral, a renowned business school in Brazil, nearly half the investment will be spent on rail, including some R$ 25 billion on existing projects. Another R$40 billion will support the grandiose plan to link the Atlantic and Pacific oceans via Brazil and Peru which is partly a Chinese investment.

The feasibility and realization of these projects are incognito at this moment. Many of the biggest Brazilian construction firms are linked to industrial conglomerates that are mired in the multi-billion-dollar corruption scandal at Petrobras, the state-controlled oil giant.

Foreign investors linger over scandal conclusions and Brazilian economy recovery to resume their negotiations.

An important ordinary cost in a frequent basis in fuel. Brazil is the 15th biggest country as per the Central Intelligence Agency (CIA) ranking of crude oil proved reserves, though far away from first position, Venezuela (16bi BBL against 300bi BBL) as of January, 2016.

In nearly two decades, Brazil has managed to keep up with fuel prices. In a historical series against United States, prices kept considerable low from 2001-2011. Nevertheless, gasoline prices in Brazil are considered lower (USD1.2/km) than the global average (USD2/km) from 2013-2017.
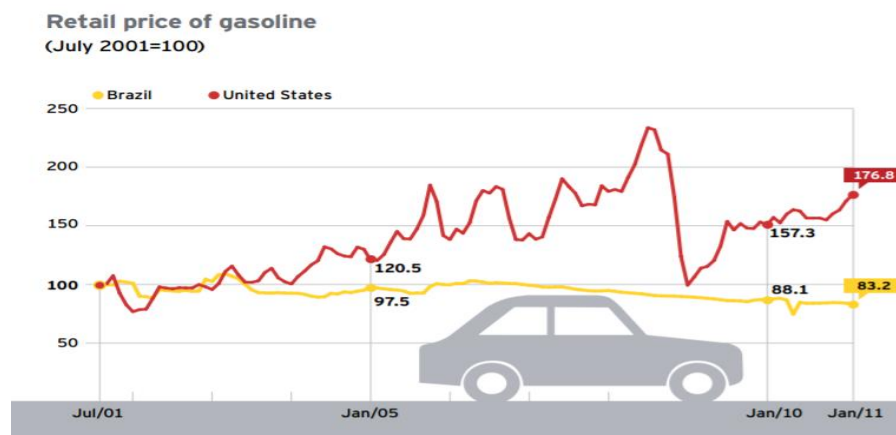

Figure 17: Retail price of gasoline (EY Sustainable Brazil: An outlook on the oil, ethanol and gas markets, 2017)

Figure 18: Brazil Gasoline Prices (Trading Economics, 2017)

A report delivered by EY in 2012 conducts a study on the oil, ethanol and gas markets for a so called sustainable Brazil. Together with Fundacao Getulio Vargas (FGV), a traditional School of Business, main objective of the study is to understanding an industry generating enormous wealth to countries possessing the largest reserves, production, technology and strategic policies for their development. It aims to provides a thorough analysis and well-grounded projections on supply, demand, growth and the impact of the fuel industry on the world economy by 2020.

Keys findings on its forecast concluded that:

- Price determinants for the sector by 2020: Marketable energy (fuels for transport and heating, electricity for various purposes, among others) is a basic input for the production and marketing of any goods or services and represents a major item of household expenditure.

  Key influencers:

  ✓ Expansion of oil supply: worldwide steady supply, however innovation in the exploitation process are enabling the identification of new and deeper reserves of oil and natural gas in Brazil and other countries.

  ✓ Expanded production capacity of ethanol: use of ethanol as automotive fuel grows at a rate of 5.6% per year in Brazil since 1980's. New production processes are expected to become commercially viable, generate substantial gains in energy payback and reduce the carbon footprint of biofuel production.

  ✓ Subsidies policy for ethanol production: may be applied to ensure competitiveness when faced with imported gasoline and ethanol. Once gasoline mixing ratio is determined by law, there is a guaranteed market, and subsidies become a support tool for local production conditions and an additional barrier to imported ethanol.

  ✓ Energy efficiency and substitution measures: energy efficiency, fuel substitution and changes in energy-intensive industries leads to a lower energy intensity. The need for energy efficiency gains, coupled with goals

for energy security and reduction of emissions creates incentives for the replacement of energy sources.

✓ Potential macroeconomic growth: the evolution of demand for energy is strongly linked to macroeconomic growth. Economic growth also translates into higher incomes for families, causing higher consumption of fuel, electricity and other energy uses.

✓ Exchange rate scenario: keeping the US dollar as the universal currency of international trade is proving to be an increasingly fragile principle. It is believed that the loss of value of the dollar accounts for a percentage of price increases for commodities in international markets, including oil.

✓ Pricing policy: the current policy of effective stabilization of domestic prices of oil derivates does not allow for price variations due to factors of a transient nature and effectively reduces the exposure of the national economy to shocks in international oil prices.

✓ Natural gas: an expanding market. Significant growth in the next decades. The Southeast region consumes 70% of the country's natural gas, the Northeast region 18%, the North 2% and, the South 10%. Natural gas price is 30% lower than gasoline average price.

4.1.2.4 Brazil as a Target Market and Relevant Key Indicators

Considering Science and Technology management in Brazil, the country has a system composed of a central coordinating body and development agencies in charge of the definition and implementation of policies developments in science, technology and innovation.

Due to the country's dimensions, it is difficult to manage access to technology. In addition, implementing a unique policy that could address several regions and its specific needs is challenging. The scientific and technologic knowledge produced is not enough

to promote significant changes, neither in technology access nor to social inequities. Solutions are not expected to be solved in a short/medium term.

Although forecast is not positive to the development of technology in Brazil, surprisingly the country has a high rate on internet usage and mobile numbers. Above 80% of its population live in urban areas, 40% to 60% of inhabitants are using internet in the last 5 years.
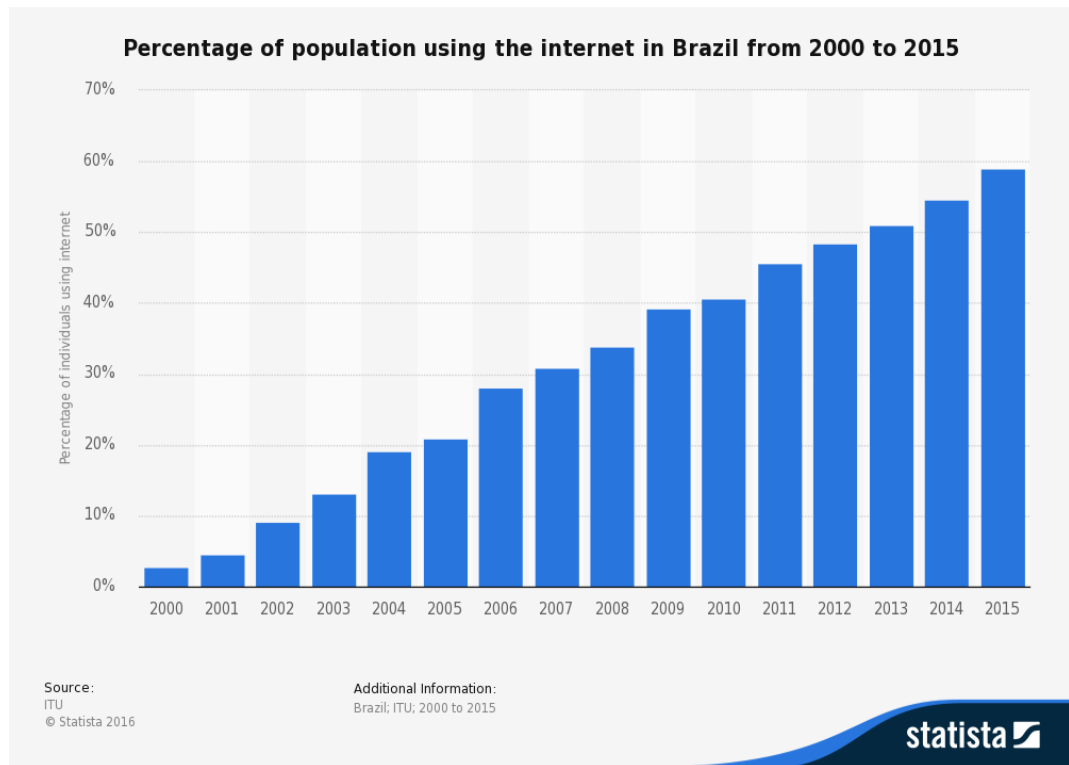
Figure 19: Percentage of population using the internet in Brazil from 2000 to 2015 (Statista)

Regarding mobile phone internet users is estimated that more than one third of its population has access to the service. In 2020, the population is expected to grow about 212 million people and mobile users is expected to exceed 50% of its population, 108 million users.

Number of mobile phone internet users in Brazil from 2015 to 2021 (in millions)
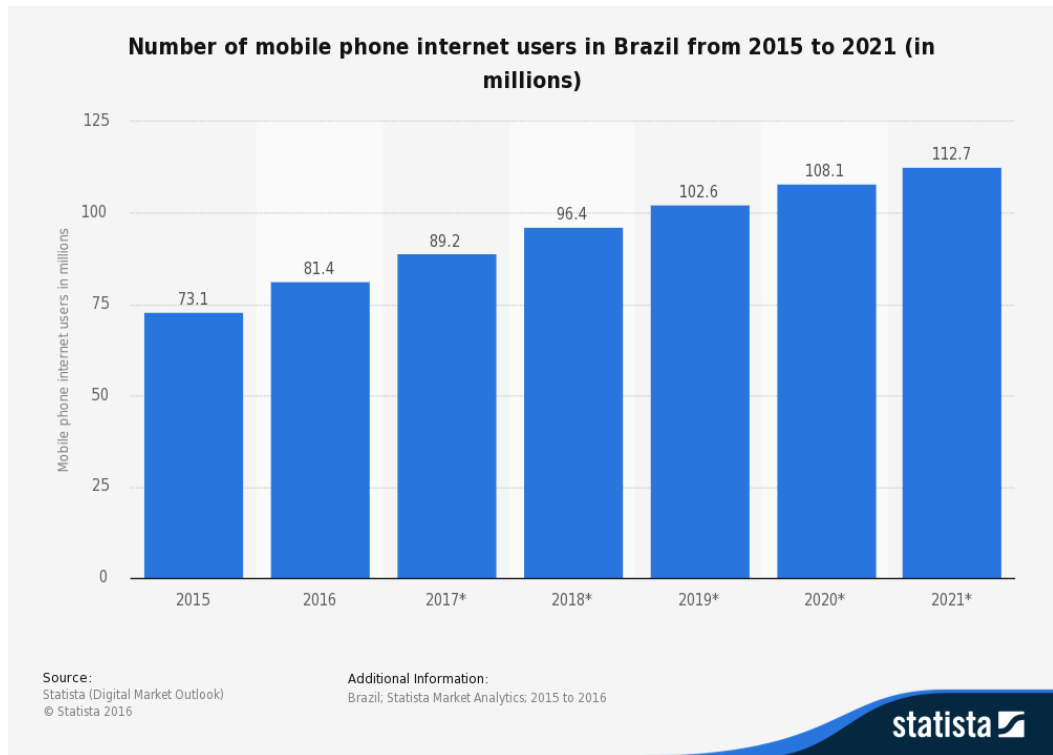
Figure 20: Number of mobile phone internet users in Brazil from 2015 to 2021 (Statista)

The service of an online platform for carpooling is directly impacted by the viability of internet connection and devices. Despites the enormous territory and straggling areas, as mentioned before, urbanization rate is above 80% and raising, achieving the highest peak in 2045 followed by the US, China and South-East Asia.
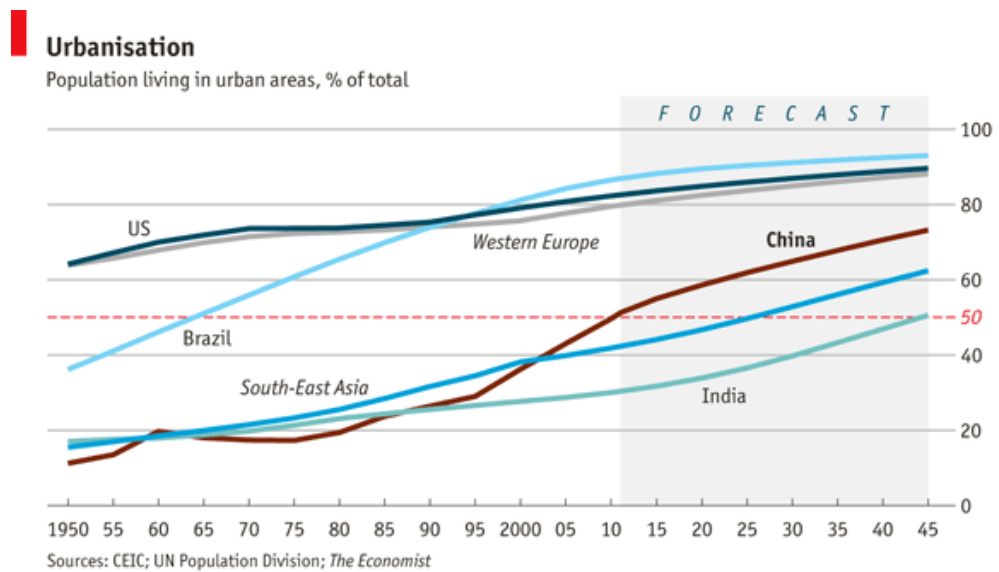
Figure 21: Urbanization (The Economist, 2012)

Being more specific towards the distribution on operational system which impacts directly in the company's resources and potential agreements with such providers, Brazil is mainly dominated by Android operational system, around 82%, followed by iOS, around 13%.
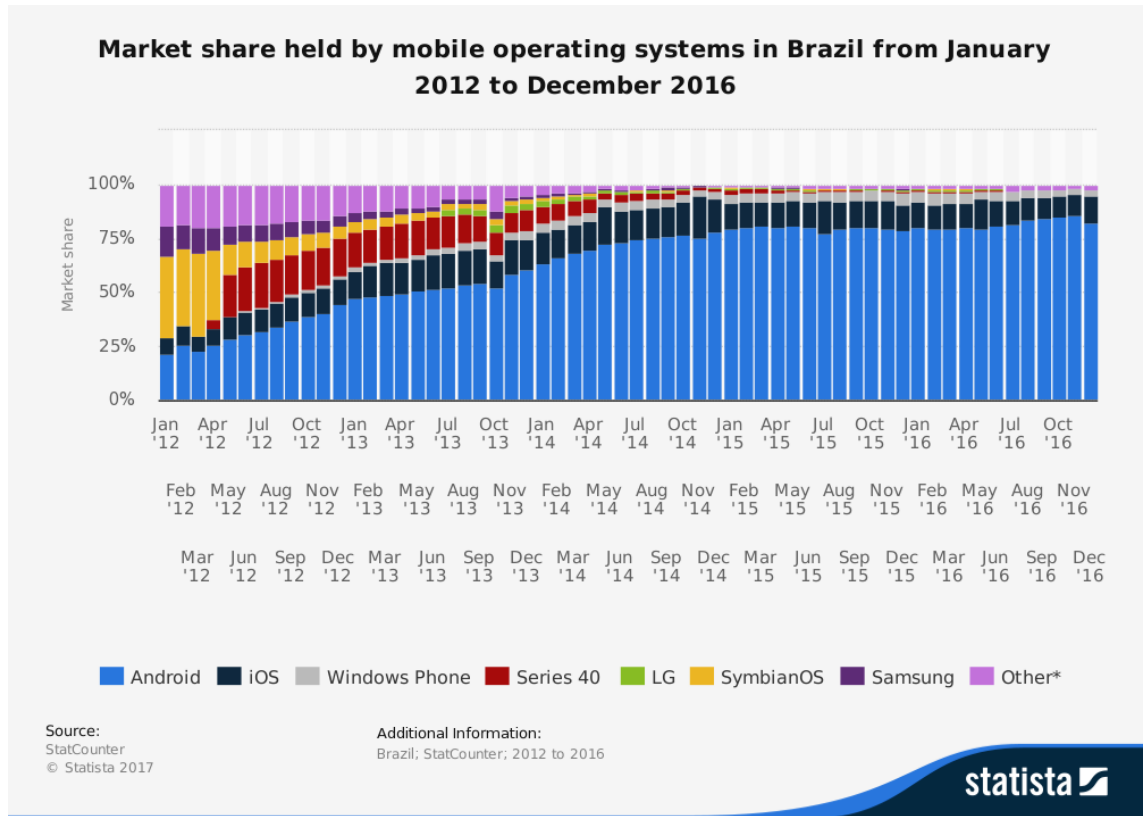
Figure 22: Market share held by mobile operating systems in Brazil from January 2012 to December 2016 (Statista)

As covered in the item a. Economy of this topic, some investments are being made in roads and transportation. Besides the broad territory, Brazil does not face natural disasters or severe weather conditions such as earthquakes, typhoons, hurricanes, tornados, volcano activities or icy weather. However summer storms can cause terrible consequences due to the lack of infrastructure such as severe floods and landslides. The whole territory can be accessed by land transportation since there is no geographic constraints.

As seem in the urbanisation map below (The Economist, 2015), main cities with strong potential to carpooling services are concentrated in the South-eastern area and in the country cost area.
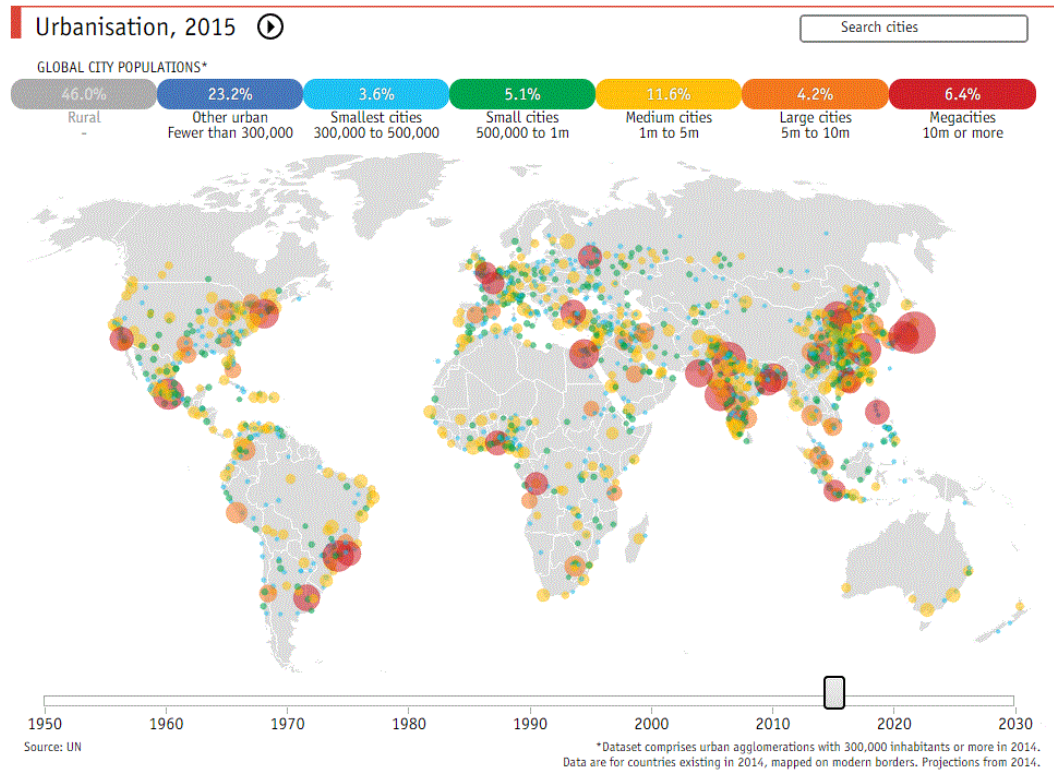
Figure 23: Urbanization (The Economist, 2015)

Main potential heavy users are living in megacities such as Sao Paulo (22 mi), Rio de Janeiro (13 mi); large cities such as Belo Horizonte (6mi) and medium cities in the north-east Fortaleza (4mi), Recife (4mi), Salvador (4mi), central region, Brasilia (4.4mi), and south area Porto Alegre (4mi) and Curitiba (4mi).

As per this work objectives, the relevant key indicators to orient the market analysis are:

- Financial indicators: GDP per capita, GNI per capita, inequality index, household final consumption expenditure
- Infrastructure: investments in logistics fuel price, sustainable substitutive resources and automobility availability
- Connectivity: available resources and devices
- Behaviour: openness to adoption and energy saver consciousness
- Market: availability and affordable service and reputable/ trustworthy brand

4.1.3 Customer Behaviour

4.1.3.1 Lifestyle and Driver Profile

A report on Global Automotive Consumer Survey was held in 2014 by the company Deloitte. Among the countries assessed, Brazil was part of the emerging markets selected to further analyse and highlight consumer trends and insights. Main findings on the Generation Y – age 20 to 37 years + 0.6 x (population in the age group of 35-39) - are presents as below:

- They are interested in owning or leasing vehicles, with over 80% in emerging markets expecting to buy in the next five years
- They believe they will be driving alternative engine in five years and they are willing to more for it
- Their reasons for not buying: high costs to maintain a car and walking and public transportation fit their needs
- Over 50% are influenced by family and friends on their mobility related decision making
- They see as the greatest benefits of vehicle technology are safety improvements and fuel efficiency increase
- They want vehicle technologies such as presence and proximity recognition, auto-pilot in dangerous driving situations

Regarding Generation Y market potential, over 80% in emerging markets plan to purchase or lease vehicles within five years. In Brazil, this number is 83%. When deciding to not buy a car, these consumers are concerned about: 1. affordability, 2. maintenance costs and 3. environmental concerns.

An important comparison with other countries suits this topic. As per the picture below, a strong factor in Brazilian mobility consumers' behaviour is towards sustainability (only country placing it on top 3 reasons). As per the survey, a clear assumption towards lack of public transportation options and lifestyle which does not meet walking as a mobility option is done. Main reasons are for that, is that Brazilians do not a have a reliable and efficiency substitutive service (bus, trains) they can rely on, thus not a criterion on the decision making.

Figure 24: Affordability and needs met by walking / public transportation are top reasons across Gen Y for not owning a car - Global Automotive Consumer Study The changing nature of mobility Exploring consumer preferences in key markets around the world (Deloitte, 2014)

Moreover, Brazilians are placed in a very high position on the rank of time expend in communing. The country expends on an average in its megacities 40min per day in 2013, according to the Institute of Applied Economy Researches (IPEA) in a study delivered in 2013. Back then in 2010 national car ownership rate was only 25%.
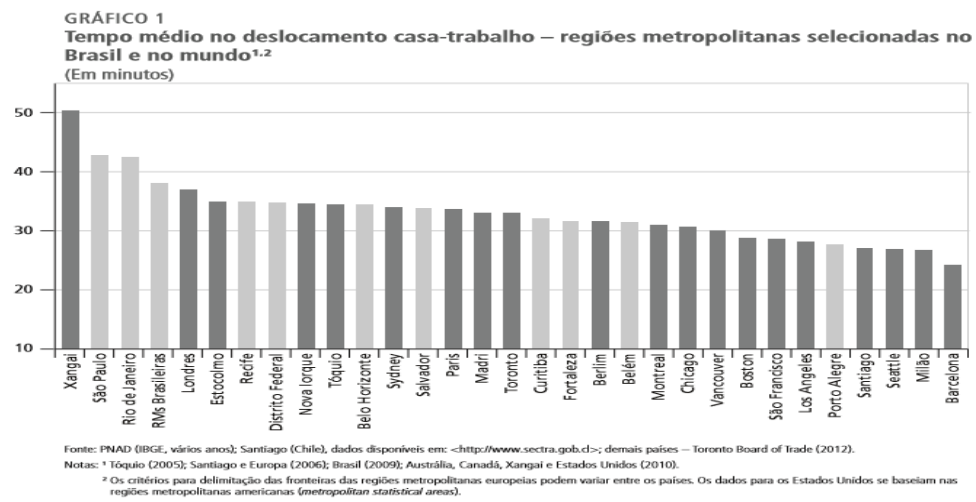
Figure 25: Average time communing – metropolitan areas in Brazil and the world (IPEA 2013)

Regarding driver profiles, customers value low cost and convenience. Whenever going somewhere, costs must be the cheapest as possible. In addition, it should be fast and easy which touches the convenience factor.

Brazilians loves soccer, carnival and cars. When questioned about their preferred mode of transportation, the answer car is over 50%. Another question regarding their will to give up driving their cars even if they had to pay more for another transportation, the answer yes is nearly 20% only.

Their lifestyle was also assessed in this study. When asked if they would prefer to live in a neighbourhood that has everything walking distance, 75% of other generations interviewees said yes, and 64% of Generation Y interviewees. This trend of Generation Y caring less than other generations was a trend in all emerging markets, in opposition to developed countries replies.

4.1.3.2 Behavioural Trends in Mobility Technology

When introducing technology and disruptive concepts on mobility services, Generation Y consumers are more interested in alternative transportation modes and transportation app, particularly in emerging markets, although there is some concern for safety.

They also benefit from planning their trips in smartphone apps, then we can assume that 59% are tech savvy which is a very important factor in openness behaviour when using technology in the real world for services which needs a tangible product and resource such as car rides (ride + car + driver).

Generation Y see great benefits from new vehicle technologies and disruptive services in mobility. Some benefits such as anti-crash technology, alternative or efficiency fuel consumption, driverless vehicles, fully-connected vehicles and micro cars.

Though car rental services are a choice for 39% of them if easily available. Considering the characteristics of a peer-to-peer service, the factor available seems to be one huge differential as well as flexibility on meetings points and departure time.
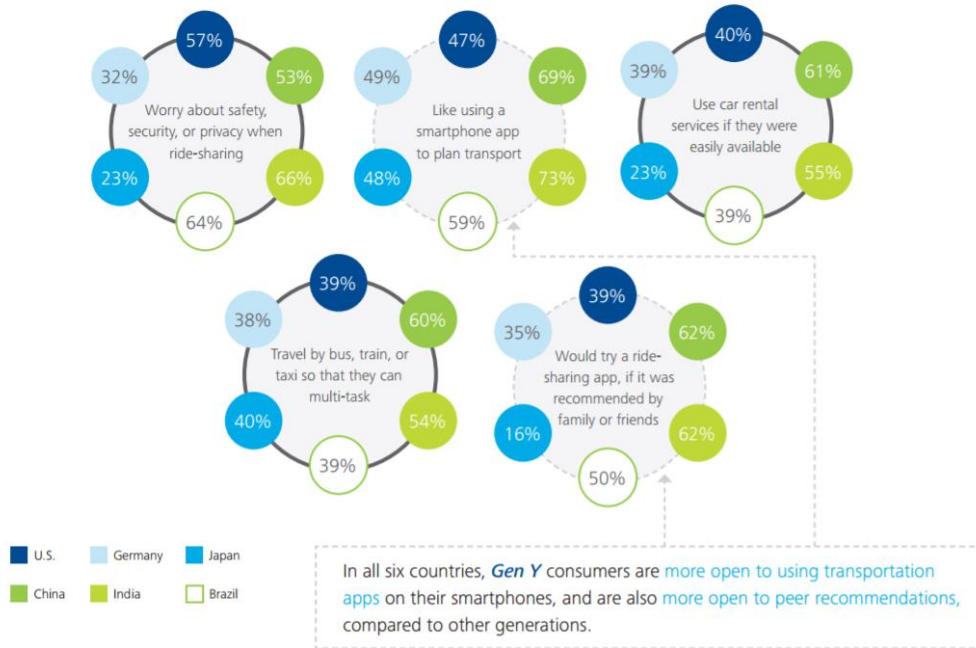
Figure 26: Interest in alternative transportations modes and transportation app - Global Automotive Consumer Study (Deloitte, 2014)

Having placed sustainability on the Top 3 criteria when deciding to buy a car, Brazilians are expecting to be driving an alternative engine in the next five years. They are the most positive interviewees in emerging countries among all generations.
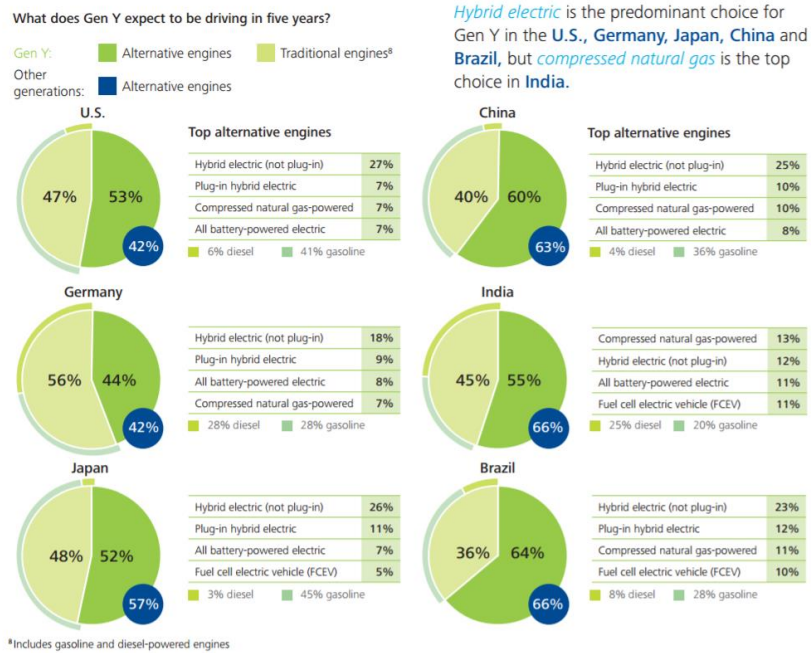
Figure 27: What does Gen Y expect to be driving in five years? - Global Automotive Consumer Study (Deloitte, 2014)

Being aware of technology shift in auto engines, likewise Brazilians are also willing to pay for alternative ones. 72% of Generation Y is willing to pay more and 64% other generations. In addition,50% of interviewees agree that manufacturers do not offer enough alternative fuel engines in the vehicles they would like to drive which denounces conscience in the buying decision process.

Over half of the consumers support government standards and incentives to switch to alternative powertrains (alternative fuel engines and/or high fuel efficiency engines), though Generation Y is less supportive than to these measures than other generations.

4.1.3.3 Brief Behavioural Analysis Mobility Services

As mention in Figure 26 in the previous session, in Brazil, 50% of Generation Y is willing to try a ride-sharing app, if it was recommended by family or friends. The combination of transportation apps and peer recommendations are the key factor on their behaviour perception.

The most prestigious business magazine in Brazil, EXAME, has analysed some numbers from the first year of Bla Bla Car operations in the country. Users have been travelling over 85 million kilometres and 25 thousand trips (between Rio and Sao Paulo). "Our main challenge is to convince drivers to share their cars and passengers to trust the drivers" declares the CEO and co-founder of the company, Nicolas Bursson. To convince users, the company knows that trust is the key to any peer-to-peer service and their efforts is to sell the concept of trust as mentioned in 4.1.1 Company character in Management and Marketing skills.

Besides that, the company is aware of downsides of ownership. Total costs of having a car in Brazil is one of the highest in the world, one key issue to vehicles owners and owners to be. Another positive aspect for the service, is that there is no direct competition (well-known Uber focus on short distance itineraries within the same city) and lack of good public transportation which are their real indirect competitors or substitute services. Some small cities can benefit from available and simple transportation which previously was inexistent or complex and expensive offer. In the end, they combine drivers will to share costs from one side, and fulfil the needs of passengers, on the other side.

The company expects a significant growth in 2017 since there will be a great number of long weekends thanks to public holidays when Brazilians usually take their family and friends (and cars) to a trip nearby (around 250km distance).

As measured, the demand is real and conquering this market is a matter of trust. "We try to build trust among the markets we operate. You would not hop on in a car of a strange but after Bla Bla Car, ride concept changes. The biggest the community and more you know about the users, the more you trust in the users and in the service" declares Bursson.

Specific data on peer-to-peer general sentiment has not been measured in Brazil but the results of study on the matter as mentioned in 4.1.2.1 Lifestyle and Driver Profile and 4.1.2.2 Behavioural Trends in Mobility Technology added to trust issues which is reconfirmed issue by the company and common perception convey the big picture on Brazilian customer behaviour towards mobile services.

4.1.4   Mobility Market

4.1.4.1 Current Mobility Market Size

As presented in the graphic below, a higher vehicle sales rate was seen in comparison to the economic growth in Brazil. The trend can be still confirmed from 2015, since the total number of vehicle sales was 2.5 million according to Statista, an online statistic, market research and business intelligence portal and the past two years were expected to hover around 4.5 million units.
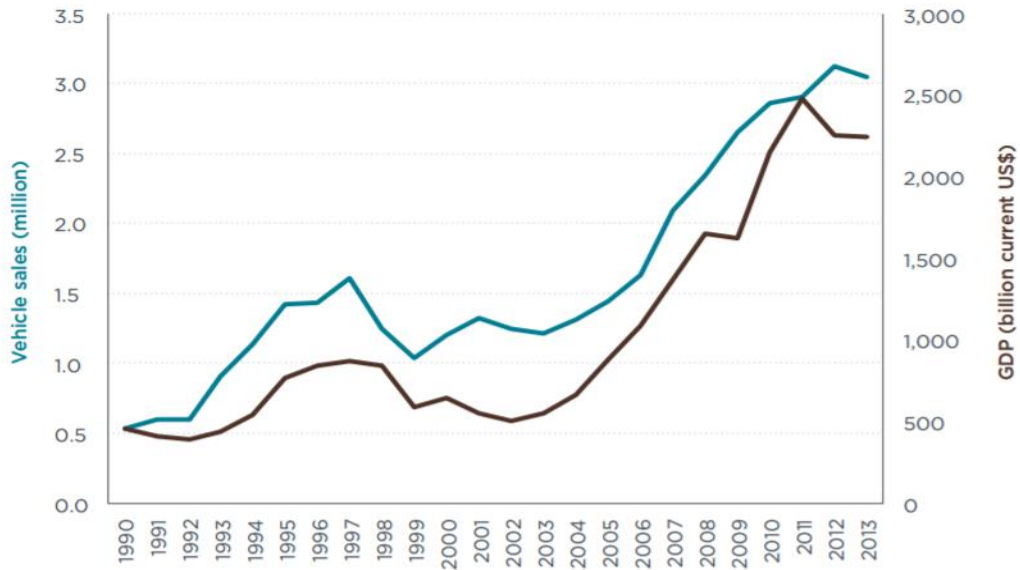
Figure 1-2 – Comparison of passenger vehicle sales and economic growth in Brazil.
Sources: ANFAVEA 2015, World Bank databases.

Figure 28: GDP x Vehicle sales (1990-2013) – World Bank (ANFAVEA, 2015)

According to numbers from 2014, the total number of cars available for car sharing considering could be around 44 million units. As an exercise, an estimation of revenue on peer-to-peer transportation considering an average fee of 10 euros, could result in 440mi euros at a one-time trip per unit.

Figure 29: Car distribution 2013 – G1 (Denatran / IBGE 2013)
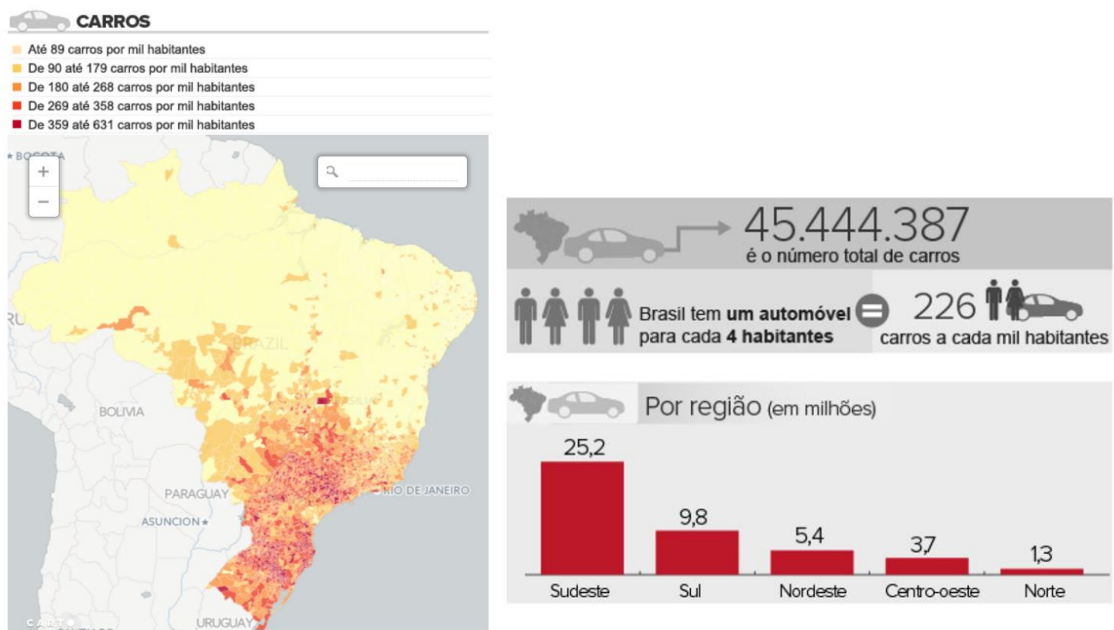*Figure 30: Car total number and distribution by region 2013 – G1 (Denatran / IBGE 2013)*

In markets where the service maturity is more developed, car fleet and car sharing culture helps to increase revenues and value towards the service. Value here means value of transactions facilitated by sharing economy platforms is received by the provider rather than the platform and it accounts for over 85%. The revenue models that platforms use vary significantly between and even within sectors. It can be up to 20% for ride-sharing services. However, it has been harder for platforms to turn these revenues into profits. Profitability has improved in many of their most mature markets, but the sizeable current investment in customer acquisition will need to pay off in the next phase of growth in the sharing economy if platforms are to prove their sustainability.

Figure 31: Revenue and transaction value of five key sharing economy sectors in Europe, 2015 (PWC, 2016).

4.1.4.2 Mobility Market Trends and Development

Peer-to-peer mobility services are part of megatrends which happens naturally in long-term and it does not follow a specific pattern on its movement. Specially in emerging markets, it has been highlighted the political and economic volatility when evolving or maturing. Although these markets are very likely to be affected by these factors, projections for emerging markets on demographics and technology-driven productivity catch-up are still on the go with a few bumps in the road along the way (PWC Megatrends matters blog, 2017).

Brazilian market size is around 10% of the total European market. So, let's consider numbers projected to Europa as our starting point to understand and estimate trends and future development on peer-to-peer transportation.

Figure 32: Revenue and total transaction value facilitated by sharing economy platforms in Europe by sector, 2015-2025 (PWC, 2016).

Considering a 10 years' timeframe, value of transactions is projected to grown more than 2000% and platform revenues are expected to be around 15% of total value of transactions. Peer-to-peer transportation accounts the greater share for platform revenues which means that huge investments on those platforms and its adoption is under development and strategies to fill this market are being studied. In competitors' section, a better analysis on old new players, such as car rental companies and car manufactures, will be addressed to demonstrate the how these companies are managing to survive when new business models are implemented and tested in the market.

In short, Brazil accounts for 2% of the total absolute numbers which can be interpreted as reaching 11,4 bi euros in 2025 in value of transactions. Platform revenues can be estimated on the size of the market in 2,5 bi euros regardless the platform involved (global or national provider).

4.1.4.3 Mobility Market Growth

Based on the previous analysis, those are the key drivers to a possible growth on a shared-economy mobility service:

- GDP Growth rate: understanding how the economy evolves, helps to understand how household expenses are being allocated and in which activities.

- Vehicle sales: a reflection on GDP growth and other factors the total number of vehicle sold in a year accounts to the final number of passenger's cars available in a peer-to-peer mobility service.

- Available fleet: considering a time range of 10 years, which is the low average of depreciation of this good, we can add 10 years of vehicles sales and come up with the sum of total available fleet.

- Population age: a steady population growth is expected in Brazil for the next 10 years. Economically active population accounts for roughly 65%, with a slight growth in the upcoming years.

- Metropolis growth: the urbanization rate and metropolization and suburbanization phenomena are presented mainly in South-eastern with peaks of 17 million people in Sao <Paulo metropolitan area, placed on Top 3 largest cities in the world.

- Openness to sharing economy: as mentioned in 4.1.3.2 Behavioural Trends in Mobility Technology, Brazilians are willing to utilize the service specially if they are safe and private (64%) and they would try a ride-sharing if it was recommended by family and friends (50%).

4.1.5 Competitors

Since shared mobility service is a hype and trendy service not only on peer-to-peer interactions but also it has opened the path to competition in overall transportation industry, traditional car rental industry, and nevertheless in car manufacturing industries.

This chapter segregates the different kinds of competitors into: direct, substitutive and new entrants. The factors to category them into these clusters will be explained in each sub-section.

4.1.5.1 Direct Competitors

Direct competitors are competitors using mobile application or online platform or web-sites to share rides as their main service. The characteristics are similar to Bla Bla Car application: ride partner concept, referral and rating assessment and travel costs shar-ing.

Competitor	Website	Community size	Country of origin
	www.beepme.com	200k. Large size.	USA
	www.wego.com.br	OUT OF SERVICE	Israel
	www.caron-etas.com.br	Corporate carpooling.	Brazil
	www.caro-nafacil.com.br	Not available. Small size.	Brazil
	www.tripda.com.br	OUT OF SERVICE	USA
	www.facebook.br	Hitchhike groups with few thousand mem-bers segmented by city, state.	Brazil

Table 2: Direct Competitors

All direct competitors are either too small or have shut down its operation in the country. Beep me could be categorized as the possible direct competitor with possibilities of shar-ing the market, together with Facebook hitchhikes groups.

In Europe, Bla Bla Car has acquired smaller competitors before release their service to a new market. In Brazil, this deal did not take place since no appealing competitor nor fast adopting growing was happening when the company decided to conquer this new market in 2015.

As seen in the chart, competitors such as Wego (Israel based) and Tripda (USA based) have voluntarily left the market in the recent years.

Besides that, the company strategy is not focused on corporate carpooling, instead they target peer-to-peer sharing in high depended car communities in a daily basis regardless their workplace or a timetable specified by an employer / corporation.

4.1.5.2 Substitute services or Indirect Competitors

Substitute services or indirect competitors can be classified as mobility service that also take advantage of online businesses and fulfil the need of long distance transportation. Those include main passengers' transportation mediums in Brazil such as buses and airplanes.

Competitor	Website	Regions served	Number of cities served
TAM	www.tam.com.br	• All regions	50+
GOL Linhas aéreas inteligentes	www.voegol.com.br	• All regions	60+
Azul Linhas Aéreas Brasileiras	www.azul.com.br	• All regions	100+
Avianca	www.avianca.com.br	• Northeast • Southeast • Midwest • South	20+
ITAPEMIRIM	www.itapemirim.com.br	• All regions	2000+
1001	www.1001.com.br	• Southeast * • South	20+
Cometa	www.cometa.com.br	• Southeast * • South	15+

*Main route Rio de Janeiro x Sao Paulo x Rio de Janeiro

Table 3: Substitute Services or Indirect Competitors

Substitute services or indirect competitors for a shared economy mobility service are mainly the industries that they have previously disrupted, aiming the same market. In

Brazil, clearly the main affected industries were commercial transportation by roads and air. The country has a poor offer using railways to transport passengers, which can be considered non-existent. Logistics companies and mining companies are the main investors in private railroads for their production outflow and outflow of some other producers using the same route.

Due to the vast territory area and lack of road infrastructure, Brazil has seen in the past decades airlines offers boom and high investment in the sector. In 2016, former president Dilma Rousseff has raised foreign ownership of Brazilian airlines up to 49%. This amount reached 100% performance by lawmakers during a congressional review, however current president Michel Temer has reduced the percentage back to its original 20%. The country is facing a huge economic and political crisis which lead to a very poor investment atmosphere, where airline companies are operating with negative cashflow, debts in US dollars thus share prices fall.

The situation is more dramatic for buses companies. Usually controlled by anonymous societies (S.A corporations) or by families, those businesses have been impacted by airline key competitive drivers such as sale campaigns and taxation subsidiaries. Profit which has been decreased since 2003, had a dramatic fall in 2008 during the economic crises, contributing even more to cascade negative events. Besides that, the largest bus trips provider, Itapemirim, suffered from a decision from the National Agency of Terrestrial Transportation (ANTT), which took around 7 years to drawn a conclusion. Meanwhile, the company loss revenue and loans became more expensive. Nowadays the company faces overall debts of 330 BRL millions and tax liabilities of 1 billion. In 2016 the company filled for judicial recovery together with many other companies in several sectors facing the same challenges since 2015.

4.1.5.3 New entrants

New entrants are not likely to be a threat since investments will not be payed back in a short term. Bla Bla Car entered the market since operations in other countries were already profitable and a investments in a new market could be done. Current new entrants could be the direct competitors making a comeback which probability rate for the next couple of years is doubtful.

4.1.6 Pricing

4.1.6.1 Cost Structure

The cost structure for a car trip is based on few factors. Main drivers to this cost are:

- fuel and toll fees
- car maintenance costs
- car taxation fees

The equation for the cost structure can be presented as follow:

$$Tc = \frac{c1((l/100km) \times p1/l) + t1, t2, t3\ldots) + ((c2+c3) / tt1)}{Oc1}$$

Where:

Tc = total costs

c1 = fuel and toll fees

l = liter

km = kilometer

p1 = price

t1,t2,t3… = tolls fees

c2 = car maintenance costs in a year

c3 = car taxation fees in a year

tt1 = total trips in a year

Oc1 = occupancy number (number of passengers)

Example:

A trip from Tampere to Pori would spend 3 liters of gas since the estimated distance is 100km. The cost per liter is 1.45 euros. There are no tolls between those cities, so these costs are null. Maintenance costs for the car is 200 euros per year and total taxation fees are around 750 euros. The car's owner make similar trips throughout the year mainly in the weekends.

$Tc =$ $c_1((l/100km) \times p_1/l) + t_1, t_2, t_3...) + ((c_2+c_3) / tt_1)$

$Tc =$ $c_1((3/100km) \times 1,45) + 0) + ((200+750) / 50)$

$Tc =$ $4,35 + 19$

$Tc =$ $23,35$

The total estimated costs for this trip is 23.35 euros. If a drive is alone total costs is allocated to his own. On the other hand, if a carpooling model is applied to this trip the total costs, the occupancy number is > 1, total costs per passenger can vary from 23,35 to 4,67 euros.

4.1.6.2 Mobility Price Composition

At Bla Bla Car the cost composition model is utilized to represent the costs applicable to the car owner, although a commission based final price is applicable to each ride in their website called booking fees.

Booking fees are calculated according to the price the driver sets for the ride. The ride has a minimum, average and maximum ride price range allocated to each trip. The price displayed from search results through to passengers' payments includes these feed, as well as a small Value Added Tax (VAT).

Example:

When a driver offers a ride for 1-3 euros, the fees will be 1.00 euro.

Here are a few other examples:

- When a driver offers a ride between 3-6 euros, the fees will be 1.50 euros.
- From 51-55 euros, fees will be 7.50 euros.
- For rides costing 79 euros or more, the booking fees are a fixed fee of 0.89 euros plus 9.9% of the price the driver is asking, rounded to the nearest 0.50 euros.

The fees associated with the price the driver sets are clearly displayed when passengers pay online. No discounts are applied to the original price per seat proposed by the driver, but fees and taxes are added to this initial price.

The company states that booking fees help to cover the costs of the mobility platform to be up and running with a great performance. They also state that those booking fees boost jobs for the start-up sector and enhance carpooling experience thus making the service and community stronger and better.

4.1.6.3 Profitability Analysis

The profitability analysis is done by based on the mobility price composition mentioned above. The examples are used to illustrate the rentability per trip. One important characteristic of the service must be pointed out: Bla Bla Car business model is based on penetrating the market first, then charging booking fees. Fees are exempting until the community in this country reaches a critical mass for scale.

Trip Type	Price	Booking fee	Profitability %
Trip A	1-3 euros	1 euro	100% to 33%
Trip B	3-6 euros	1.50 euros	50% to 25%
Trip C	51-55 euros	7.50 euros	14% to 13%
Trip D	79+ euros	0.89 euros plus 9.9%, rounded to the nearest 0.50 euros.	9,91%

Table 4: Profitability Analysis

4.1.7 Dimensions and Analysis

4.1.7.1 Marketplace specificities

When compared to other marketplaces, Bla Bla Car has a unique combination of factors to reach their audience. The graphics below show the comparison between sharing economy services for other sectors such as accommodation, online food ordering and short distance rides.

Figure 33: Specificities of Marketplaces Competitors (PWC, 2016).

While Uber has a high rate of service frequency, Airbnb has its strongest driver in the basket size. Delivery Hero has a long service reach. Meanwhile Bla Bla Car is focus on community bonding and service reach.

Figure 34: Specificities of Marketplaces Bla Bla Car (PWC, 2016).

Thanks to its similar service characteristics when compared to substitutive services and competitors. The company was the third largest European ground transportation ticketing website in number of visits in the summer of 2015.

Figure 35: Third Largest European Group Transportation Ticketing Website (Bla Bla Car, 2015).

4.1.7.2 SWOT Analysis

SWOT analysis is a process that identifies an organization's strengths, weaknesses, op-portunities and threats. Specifically, SWOT is a basic, analytical framework that as-sesses what an entity (usually a business, though it can be used for a place, industry or product) can and cannot do, for factors both internal (the strengths and weaknesses) as well as external (the potential opportunities and threats). Using environmental data to evaluate the position of a company, a SWOT analysis determines what assists the firm in accomplishing its objectives, and what obstacles must be overcome or minimized to achieve desired results: where the organization is today, and where it may be positioned in the future.

Bla Bla Car has great advantages in its internal environment and some constraints in its external environment. Chart is populated considering previous sections on this work where important figures were presented.

Strengths	Weakness
• Strong and growing community • Popular brand • Employees as Evangelists and Ambassadors • High VIU perception • Current profit ratio increase (booking fee model) • Sharing, Saving and Marketplace model • No maintenance cost with real assets (cars, employees) • Eco-friendly business and philosophy • Scalability strategy	• High dependency on the community for supply and demand • Not every user is happy about the booking fee model • Easy sign off, no penalties applied • Lack of innovation margins • No accountability on incidents, accidents or any interaction among users. • Misleading company business model with substitutive services such as Uber or peer-to-peer car rental
Opportunities	**Treats**
• Community of car owners to share their rides and costs • Merge & Acquisition to smaller competitors • Brand consolidation • Safe environment and the advent of sharing economy • Cultural eco-friendly mindset	• Several substitutive services • New entrants' availability to deploy their activities • Local suppliers, customized solutions to specific markets • Country of operation violence/crime rate • Cultural lack of trust or car sharing mindset

Table 5: SWOT Analysis

4.1.7.3 Five Forces Analysis

Michael Porter's Five Forces model identifies and analyses five competitive forces that shape every industry, and helps to determine an industry's weaknesses and strengths. Those competitive forces are related to the competition in the industry, the potential of new entrants into the market, the power of suppliers, the power of customers and the threat of substitute products.

Those forces when identified can contribute to determine a corporate strategy, searching for prognosis in competition, profitability and attractiveness. The model aims to explain

why different industries are able to sustain different levels of profitability. It was originally published in Porter's book "Competitive Strategy: Techniques for Analysing Industries and Competitors" in 1980.

Rivalry is measured by the number of competitors and their ability to threaten a company. The significance and power of a company is represented by the number of direct competitors it has, along with the number of equivalent product and services they offer. Bla Bla Car scenario: low rivalry, considering carpooling service platforms and recent M&A activities, the company has a very low threat nowadays.

New entrants' potential are defined by their agility to enter the market with less money and time and directly compete with established companies. How well-known companies deal with new entrants, becoming weaker or stronger, is the measurement of the results of the force applied here. Bla Bla Car scenario: medium-high threat, since there are big car manufacturing and car rental companies interested in this market.

The power of suppliers is measured by how suppliers can determine company's product costs. It is affected by the number of suppliers of key aspects of a good or service, how unique these aspects are and how much it would cost a company to switch from one supplier to another. Lesser suppliers, higher the dependency of a single or a small group of providers, higher their power. Bla Bla Car scenario: high power, since there is no cars owned by the platform, the company relies on voluntary adoption and service offer by drivers.

The power of customers is measured by their ability to bring prices down. It is affected by how many buyers, or customers, a company has, the significance of each customer and how much it would cost a customer to switch from one company to another. Bla Car scenario: high, since there are no switching costs involved and service is usually chosen by an equation of price x service characteristics and quality.

The threat of substitutes is related to how strong another product or service can pose a threat to a company's product or service. Substitutes have a large application which can be related to similar products or even do it yourself work. Bla Car scenario: high threat, since transportation can fulfilled with multimodal services: by air, rail, sea, road).

Figure 36: Porter's Five Forces Model (modified from Porter's, 1980).

Some competitive advantages are: competitive cost per km: when compared to other substitutive service or competitor, rideshares published in Bla Bla Car has an average of cost/km around 60% less. Customer perception of VIU: members are frequently questioned about the advantages of the service and some features are really strong such as safety (driving rules observation and physical condition, i.e. being more alert during night trips), trust (rating system and profile verification).

Brand awareness: online and offline campaigns together with many prize awards in sustainability, great place to work, start-up initiatives, innovation pioneers and mobile services pictures a very good company image to members as well as more than 95% customer satisfaction in customer service.

Service adoption: the community has a YoY growth of more than 130% and has recently reached the milestone of more than 40 million members and a growth of more than 100% YoY in the numbers of traveller per quarter, reaching around 10million, a disruptive scale. It is estimated than in 2017, the company will exceed the number of passengers transported by the biggest airline in U.S in 2014, 160 million against 129 million.

However, some business constraints are: new players in any country: there is high threat from new entrants. No strong technological, legal barriers and no patents involved for launching the service. Its scope can be easily offered by another competitor and with the same cost for the customer - no switching costs - and also free subscription. Initial investment in quite low but the main issue relies on brand awareness, attraction and adoption which lead to payback in the long run, not in the short run.

Substitute services in any country: Extremely high threat from substitute services. Trains and bus created new products: group tickets (discount fares) in order to stimulate trips among friends and family which are also suppliers and customers of car sharing companies and competitive off-peak rates. Flight companies created price welfare and exceptional sales campaigns to get their market share stake from customers who have migrated to car sharing due to high fares and reduced time in airport transfer and check in procedures.

4.1.8 Key Findings and Market Forecast

Predicting the future is always a difficult task. Usually the changes are not so different from what some trends are seem in the present yet it is hard to say to where they are going and that will unfold from what has been seen in our current time.

Forecasting is more a creative task instead of only analysing the numbers and probabilities. It requires from us, imagination, touching the skies but having the tip of our toes on the ground. It is what usually consulting companies are good at. They can visualize things a bit far away from our minds and connect it with figures from yesterday and assessments for tomorrow.

One of this consulting firms are specially dedicated to see what's next and to think in a disruptive way.

"It feels like a time when we need some foresight, foresight as to what our world might become, should become. We all have an opportunity – I'd say a responsibility – to dig deep, to search for innovative solutions, inspire good growth, economic prosperity, stronger communities, healthier people and greater social mobility. So, if you're setting in a strategic direction, working on a transaction, restructuring your organisation or creating a higher performing culture foresight helps to answer what we are working towards

and why. It also helps to work out the move, or response, to disruptive new entrants, or the potential from tapping into the megatrends."

In an all connected world, we live today, the term megatrends is well put in place and its meaning and impact can be correlated worldwide. Global challenges, brought us to global cooperation and global accountability. Brazil is not in going into the reverse direction when it comes to technology, global impact and innovation. It is population size, places the country in one of the future nations, ground for growth and prosperity.

4.1.8.1 Estimated Market Size 2017-2020

Brazilian mobility market in 2020 is expected to be over a 57 million private fleet considering an average rate of 3% YoY since 2012. In 2016, 51 million passenger's cars corresponded to more than 54% of the total automobile fleet in the country.

As mentioned in the section 4.1.4 Current Mobility Market Size, an estimation of the market size in monetary value can be assessed by the average trip ticket of 10 euros, which in the future scenario can exceed 570 million euros considering full capacity, on a single trip basis early. More than 80% of the market is concentrated in the Southeast and South regions where megacities are located.

Since data regarding sharing economy services from the country is still exceptionally premature, a better analysis on the frequency and adoption cannot be provided. In this sense, this session addressed the estimated market size based on fleet availability and car sharing potential based on supplier offers.

4.1.8.2 Disruptive Services Emerging Trends

As mentioned in the introductory part of this session, megatrends and disruptive services walk hand-in-hand driven by technology infra-structure and service improvements thus digitalization processes.

Although megatrends are sticky like new pop songs, and drive us to an obsession of seeing the phenomenon and be part of it, it is a long-term change by nature done by billions of individuals – some in the vanguard, others later - and it does not usually move

in straight lines. Emerging markets suffers with the political and economic volatility, especially the ones suffered in Brazil in the last couple of years (commodity prices, political scandals), impacting in their adherence to megatrends. In advanced economics, drivers to this volatility were Brexit and Trump's election.

Despite the uncertainty that surrounds the Brazilian market, long-term economic projections cannot be put aside. Seems to be a bumping ride, with some obstacles to overcome but feasible goals.

Feasible targets since sharing economy is focusing their efforts to change the business model on very basic sectors such as transportation, accommodation, finance and household services.

4.1.8.3 Growth Drivers

Economic growth and change of behaviour are the main categories which sharing economy business can rely on. Main growth drivers impacting directly the trend are:

- The highest grown on 15-64yo population in more than 30 years from now will happen between 2013-2020 (annual growth approx. 1%) according to The Brazilian Institute of Geography and Statistics (IBGE)

- As mentioned in this work, car sale rates were measured as higher than annual GDP growth rate. In consequence, we cannot correlate GDP growth rate directly to fleet availability but it is a positive indicator of monetary availability. Brazilian GDP in 2020 is expected to be 60% higher than 2012, about 1.8 trillion US dollars.

- From a behavioural aspect, previously in this work, three main pillars that sustain a more open mindset and give a change sharing services are based on: fleet availability, mobile transactions and referral from family and friends. Those can be translated into one single concept: a large trustworthy digital community!

4.1.8.4 Constraints and Challenges

In order to succeed in fast-growing but volatile emerging markets, sharing economy companies must have dynamic and flexible operating strategies, adjust brand positioning and service offers. Markets like Brazil have the need to speak a common language in different regions, have an in-depth understanding of the markets within the market, its consumers and creating partnership with local providers or well-known business-related brands where trust can be conquered.

The most important challenge is to be understand the market and be patient to ride out short term economic and political oscillation which a strong characteristic of emerging markets as they move towards maturity and discipline. Strategic and cold blood is fundamental to the players on this market to benefit from its economic growth over the coming decades.

5   Conclusions

The focus of this work was to deliver an analysis on a specific market where a case organization has recently launched its service. The research objective was to conduct a primary research to understand country's potential and constrains, customer behaviour and shared-economy trends to sustain and increase service's adoption.

As per presented in the relevant key indicators, the company has opportunities in this new market supported by overall positive financial indicators: GDP per capita, GNI per capita, inequality index, household final consumption expenditure and positive mobile connectivity which can be translated into available network resources, devices and tele-com providers access to credit lines.

Adversely, the host country still faces some constraints in infrastructure such as invest-ments in overall logistics, sources of transportation, fuel price and switching sustainable substitutive resources such as green energy, seems to be slowly replaced.

In addition to that, customer behaviour can be paradoxical: awareness of costs and consciousness of energy saver, however openness to adoption is based on referral by close peers and provided by a reputable brand. Furthermore, some service characteris-tics are key to adoption such as safety, privacy, availability and affordability.

In light of this, research questions intercession is pointing out to a single concept:

The new report developed by the company in exchange with some experts' contributions is a new concept of implementing their strategy in a smoothly way: selling the concept of trust. The initial barrier to a shared service is the apprehensions and resistance, especially in a carpooling service, when sharing the same space for a longer time than 30 minutes with a stranger.

In order to succeed in fast-growing but volatile emerging markets, sharing economy companies must have dynamic and flexible operating strategies, adjust brand positioning and service offers. Markets like Brazil have the need to speak a common language in different regions, have an in-depth understanding of the markets within the market, its consumers and creating partnership with local providers or well-known business-related brands where trust can be conquered.

One conclusion to this work is that consolidating operations in this market can be a concern since trust can be taught and fomented but only individual actions will make it happen in the real world. Violence and crime rates and customer behaviour are key to the success of the business. The more stable and equal a society, more chances to have a strong sharing community.

Once this those macro factors are achieved, the country has a great potential to consolidate the service specially in megacities such as Rio and Sao Paulo where profitability lies on due to the volume of trips and customer's affordance and willingness to pay related commissions or fees if the total price compared to other services are fair and if there is value added such as time saving and money when commuting to the airport, bus terminal otherwise or travelling with large parcels or special items with no extra costs.

On a practical level, this work reconfirms the strategy taken by the case organization, observing recent studies on shared-economy scenario worldwide and bring insights to markets where those services are slowly taking off. Brazil is not in going into the reverse direction when it comes to technology, global impact and innovation. It is population size, places the country in one of the future nations, ground for growth and prosperity.

Summarizing this market analysis based on the three pillars presented in the introduction session: host country socio and economic current situation, shared-economy trends and consumer behavior, and in response to this work's questions presented in objectives and scope session, the key findings for this market analysis are:

Host country socio and economic current situation:

- Overall stability on high level indicators: GDP, household consumption, fuel availability, mobile connectivity, lower inequality rates.
- However high volatility due to recent political scandals, government expenditures and tax break to industries.
- Besides heavy investments are being made in the logistics, Brazil ranks 120th of 144th countries for the quality of its infrastructure.

Consumer behavior:

- When questioned about car ownership, customer has great concerns about affordability, maintenance costs and sustainability, although more than 80% have plans to buy a car in a near future.
- Customers are in their early stage of adopting disruptive services, hence openness to adopting is moderated, a sort of mixture of curiosity and fear.
- The sense and experience of trust in an individual basis is poor, therefore the sense of trustworthy community as proposed by the service is immature, not in place yet.
- Trust will be built incrementally, after personal and close peers experience. Referral is key to convince them to use to service.

Shared-economy trends:

- According to numbers from 2014, the total number of cars available for car sharing considering could be around 44 million units. As an exercise, an estimation of revenue on peer-to-peer transportation considering an average fee of 10 euros, could result in 440mi euros at a one-time trip per unit.

- From a 2025 Global Forecast, Brazil accounts for 2% of the total absolute numbers which can be interpreted as reaching 11,4 bi euros in value of transactions.

Platform revenues can be estimated on the size of the market in 2,5 bi euros regardless the platform involved (global or national provider).

- In ride-sharing services, revenue can be up to 20%, however, it has been harder for platforms to turn these revenues into profits. Profitability has improved in many of their most mature markets, but the sizeable current investment in customer acquisition will need to pay off in the next phase of growth in the sharing economy if platforms are to prove their sustainability.

As a further discretionary reading to this work, some concepts and a study carried out by Accenture is presented in Appendix session. It introduces the liaison of what comes next on shared-economy and digital services and its impact in our society.

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Appendix 1: Digital transformation and shared-economy

The growth rate of platforms, digital ecosystems and value fabrics is governed by these systems' trustworthiness and the trustworthiness of their participants. Trust is identified as a crucial metric for the growth of platform business start-ups (Parker, 2016).

In the Internet of Everything (IoE), the systems' participants include people, organizations and digital systems from digital ecosystems to devices. The participants may play multiple roles in a particular context including consumer, provider, platform owner, customer, vendor, regulator, etc. All participants make trust decisions about if, when, how often and to what degree to provide, exchange, and consume value with other participants in the form of products, services, information, currency, etc. Stephen Covey (Covey, 2006) observed that trust accelerates transactions, partnerships and business decisions.

Parker and Covey confirm the main customer behaviour trace which has been addressed in 4.1.3 Customer Behaviour session in this thesis. Trust is the key element to change the mindset consumers and create opportunity to innovative services to be developed.

New business models are trying to diminish the risk of sleeping over, sharing a ride or loaning some money from someone you must meet. Platforms aim to bring as much as members to participate in this new clan and to revive the spirit of trust. They are the knights to protect your interactions and to make sure you have the right experience while visiting their marketplace.

But trust is the standing point to cash. Once conquered, it just need time to follow its natural course consumers' demand. The speed at which IoE participants (people, organizations, systems and devices) can make affirmative trust decisions determines the growth rate of value creation, revenue, profits and sustainability of these systems. (Ritter, 2015). Ritter state can be confirmed specially in this work since once trust issues are overcome in Brazil, shared-economy services can reach its scalability due to the lack of infrastructure and economic constraints as analysed in 4.1.2 Political and Economy Scenario and 4.1.4 Mobility Market sessions.

From a macroeconomic perspective, economic and political challenges are clear and solutions are expected to be happen in a long term. It is important to highlight that technology and education are key to improve macro trends. Those are not my words, but in a recent study carried out by Accenture, a Digital Density Index was created to measure the extent to which digital technologies penetration into a country's economy would be beneficial to the whole market.

Based on over 50 indicators, such as the volume of transactions online, cloud services, technology skills within a company, the conclusion was that an uplift in 2020 GDP under ten points would be 97 USD billion. The study is attached as an appendix to this work.

accenture**strategy**

Digital Density Index

Guiding digital transformation

A new way for government and business leaders
to understand, measure, and manage digital
strategies to drive growth and competitiveness

High performance. Delivered.

Strategy | Consulting | Digital | Technology | Operations

The Accenture Digital Density Index empirically shows increased penetration of digital technologies in economic activity can significantly lift productivity and GDP growth—potentially driving US$1.36 trillion in additional output in the world's top 10 economies in 2020.

The key?

Understand what drives Digital Density,
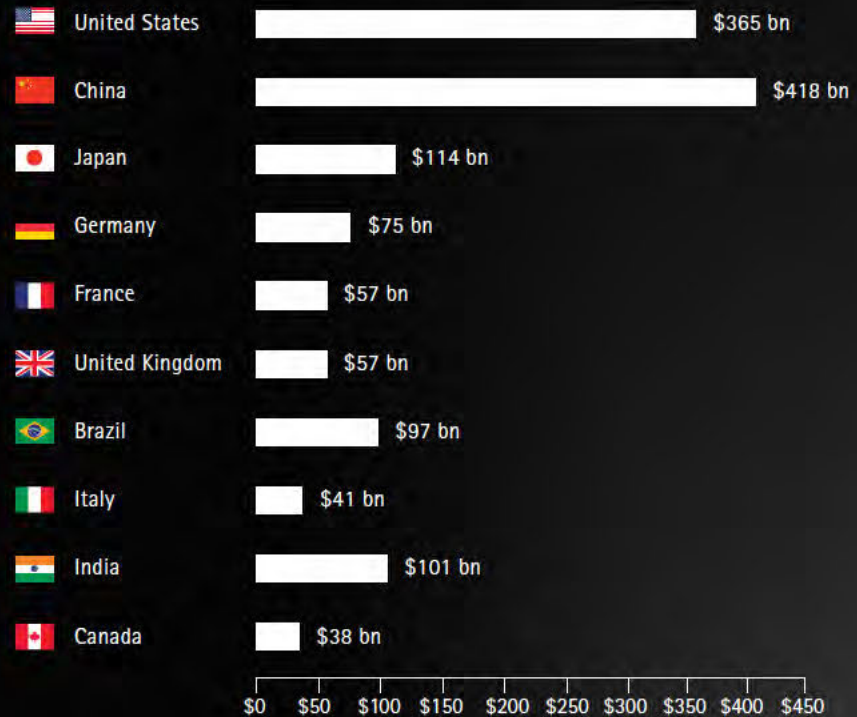measure it, and then manage it.

Introduction

Can digital technologies help economies become more competitive and grow more strongly? New research from Accenture provides empirical evidence they can.

In a joint study, Accenture Strategy and Oxford Economics not only confirmed the link between increased use of digital technologies and greater productivity, but also quantified the resulting impact on competitiveness and economic growth (see "About the Research" for more details).

According to our analysis, increased use of digital technology could add as much as US$1.36 trillion to the GDP of the world's top 10 economies in 2020—which is 2.3 percent more than baseline forecasts (Figure 1). In this ambitious but achievable scenario, a 10 point improvement in Digital Density could raise annual average growth rates between now and 2020 by around 0.25 percentage points in advanced economies and around 0.5 percentage points in emerging markets.

Figure 1: Impact of a ten point boost in Digital Density to GDP levels in 2020.

Uplift in 2020 GDP under ten point Digital Density improvement scenario for the world's top ten economies, USD billion, 2014 prices

Country	Uplift
United States	$365 bn
China	$418 bn
Japan	$114 bn
Germany	$75 bn
France	$57 bn
United Kingdom	$57 bn
Brazil	$97 bn
Italy	$41 bn
India	$101 bn
Canada	$38 bn

Effect on 10-point uplift in country digital density

	On GDP in 2020	On average annual GDP growth rates (2015 to 2020)
In advanced economies	1.8 percent higher than baseline	0.25 percentage points higher than baseline
In emerging economies	3.4 percent higher than baseline	0.5 percentage points higher than baseline
In the world's top 10 economies	2.3 percent higher than baseline	0.32 percentage points higher than the baseline
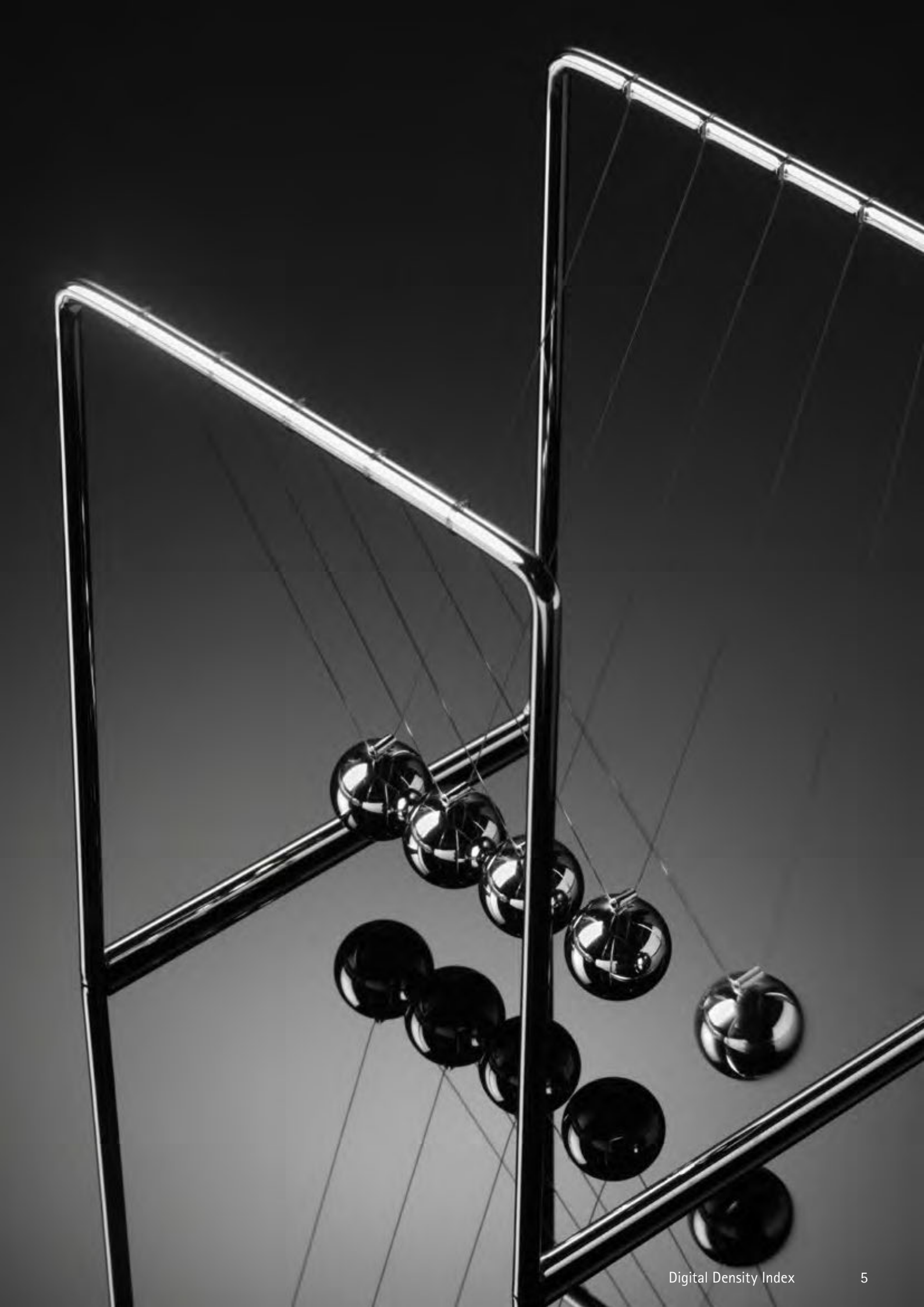
The Accenture Digital Density Index is a comprehensive scorecard of what truly matters to digitally led economic productivity.

A higher score on the Digital Density Index reflects a broader and deeper adoption of digital technologies, as well as the skills, ways of working, and regulatory frameworks needed to realize their economic potential. Our analysis shows that boosting a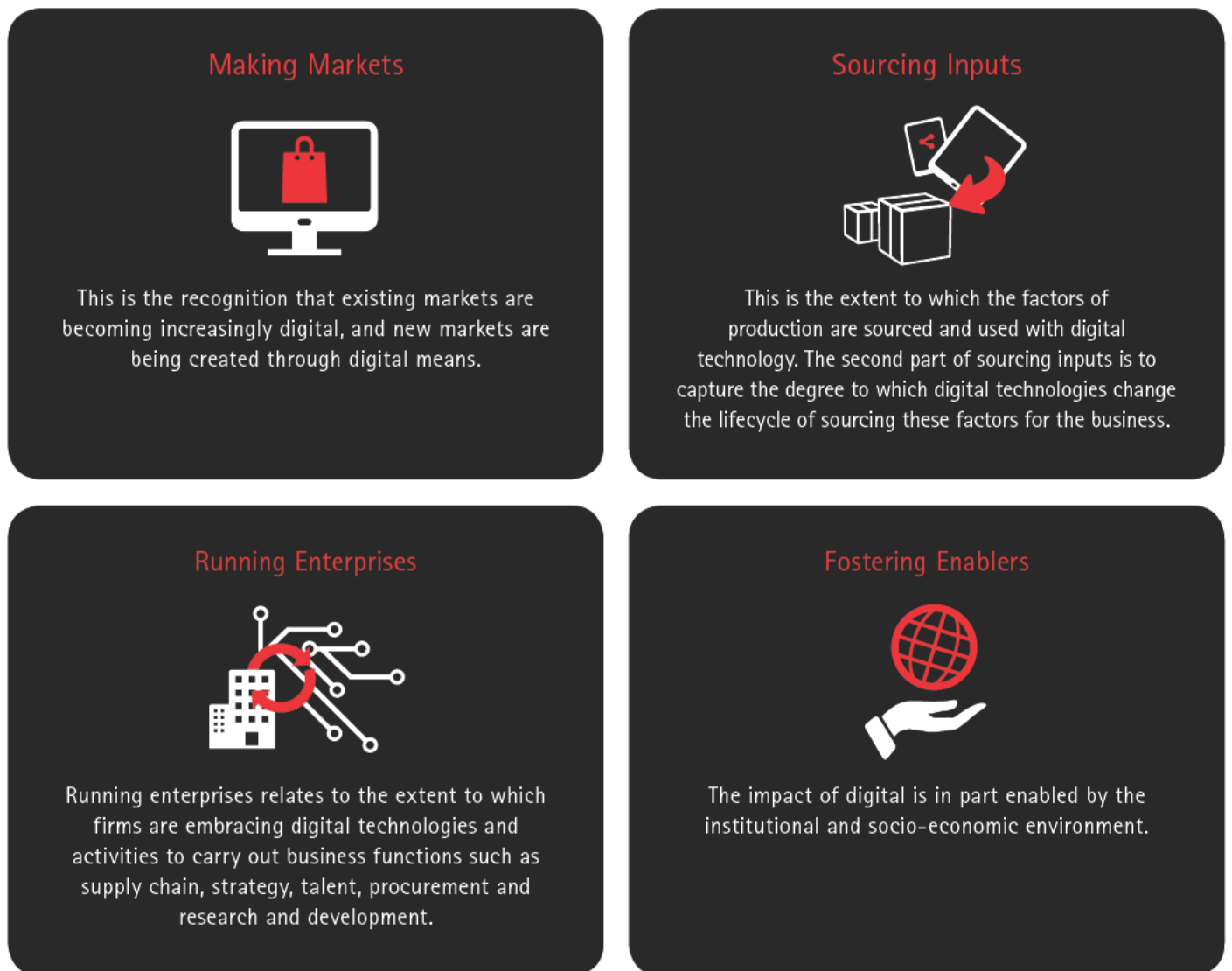n economy's score on the Accenture Digital Density Index can lead to greater productivity and, other things being equal, faster GDP growth.

Reflecting the pervasive nature of digital technology, the index covers more than 50 indicators across four equally weighted areas of economic activity: Making Markets, Running Enterprises, Sourcing Inputs, and Fostering Enablers (Figure 2).

These indicators range from the volume of transactions conducted online, the extent to which interactions between firms are automated, and the use of technologies such as the cloud to streamline processes; to the pervasiveness of technology skills in a business, the use of digital platforms to access capital and talent, and government and business acceptance of new digitally driven business models.

Figure 2: Areas of economic activity measured by the Digital Density Index

Making Markets

This is the recognition that existing markets are becoming increasingly digital, and new markets are being created through digital means.

Sourcing Inputs

This is the extent to which the factors of production are sourced and used with digital technology. The second part of sourcing inputs is to capture the degree to which digital technologies change the lifecycle of sourcing these factors for the business.

Running Enterprises

Running enterprises relates to the extent to which firms are embracing digital technologies and activities to carry out business functions such as supply chain, strategy, talent, procurement and research and development.

Fostering Enablers

The impact of digital is in part enabled by the institutional and socio-economic environment.

The Digital Density Index can help to gauge the current Digital Density of an economy and guide digital investments in a business.

For example, Figure 3 shows 17 leading economies ranked according to their Digital Density scores, while Figure 4 illustrates the differences between the Digital Density profiles of the Netherlands (the Digital Density leader) and the world's four largest economies (USA, China, Japan and Germany).

Such profiles can be an important starting point for leaders as they shape and implement digital strategies and target specific opportunities for improvement. To illustrate, Figure 5 shows how France could raise its digital density by approximately 10 points through concerted efforts in eight areas and, according to our model, significantly boost productivity and growth over time.

According to our model, it can take up to six years for the full economic benefit of greater digital density to be felt, with productivity benefits feeding through fully into trend growth rates of GDP over this period. This insight should be a catalyst for governments and businesses to act now to increase the digital density of economies and organizations.

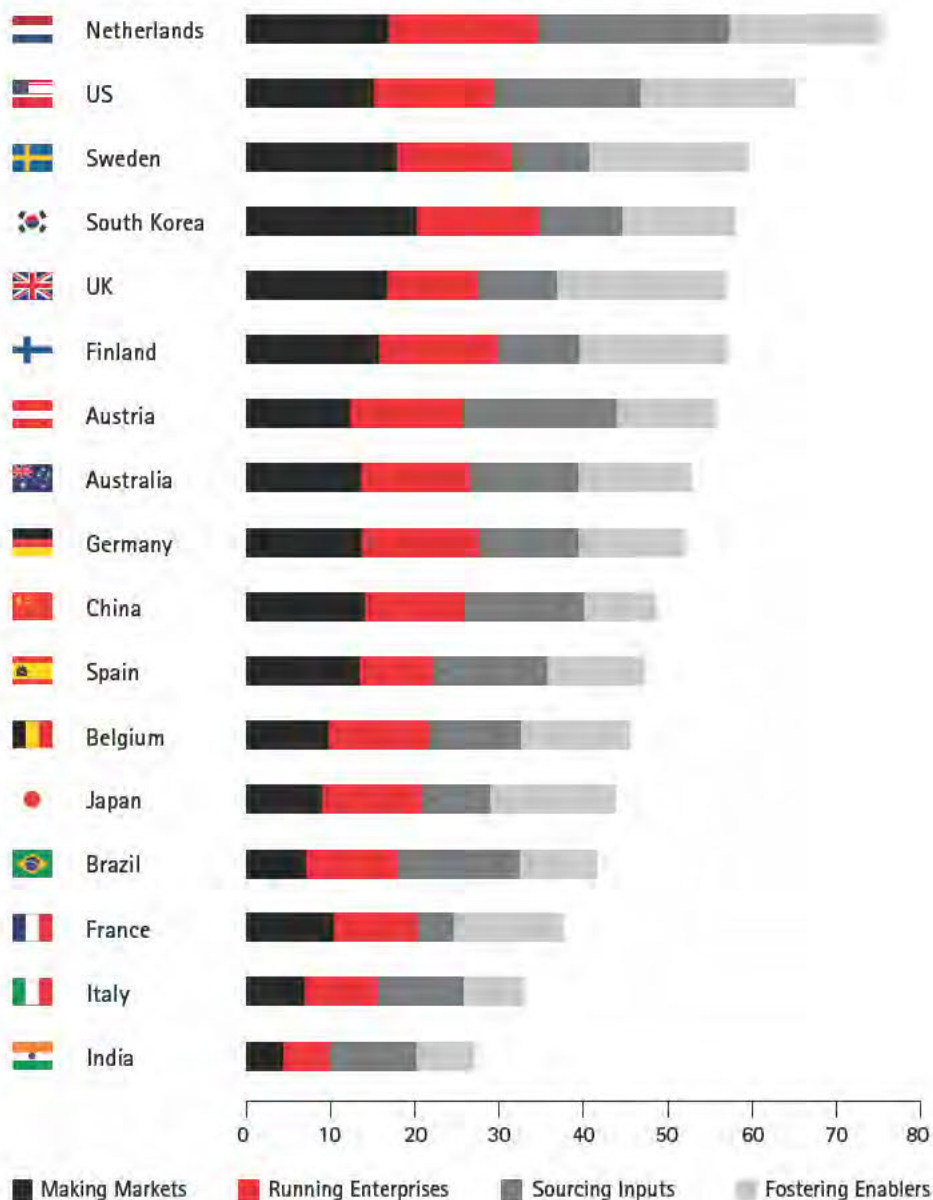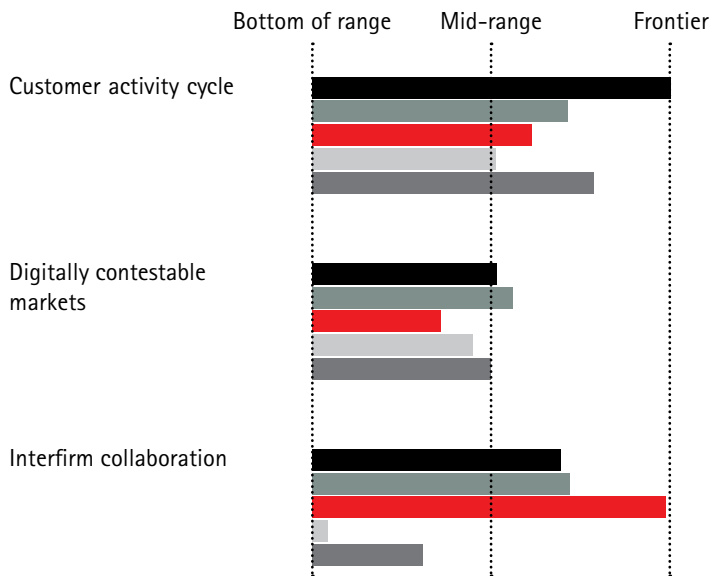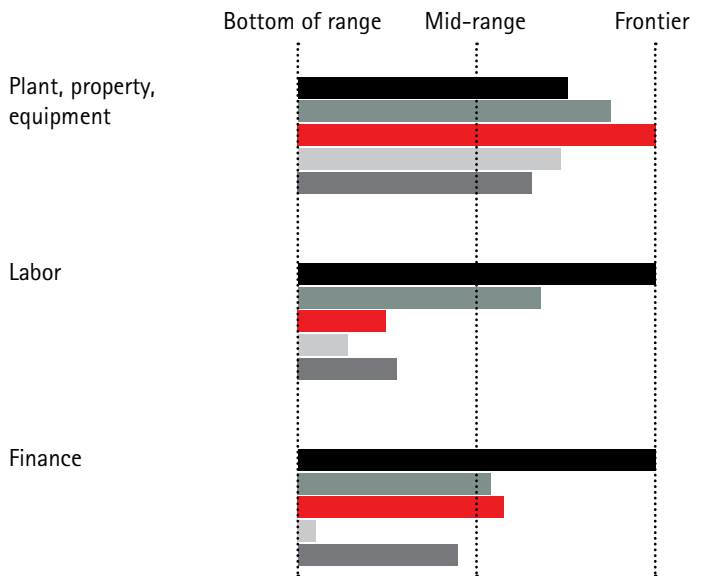Figure 3: Digital Density scores for 17 leading economies (0-100)

Netherlands
US
Sweden
South Korea
UK
Finland
Austria
Australia
Germany
China
Spain
Belgium
Japan
Brazil
France
Italy
India

■ Making Markets   ■ Running Enterprises   ■ Sourcing Inputs   ■ Fostering Enablers

Figure 4: Digital Density profiles of leading country the Netherlands and the world's four largest economies, USA, China, Japan and Germany

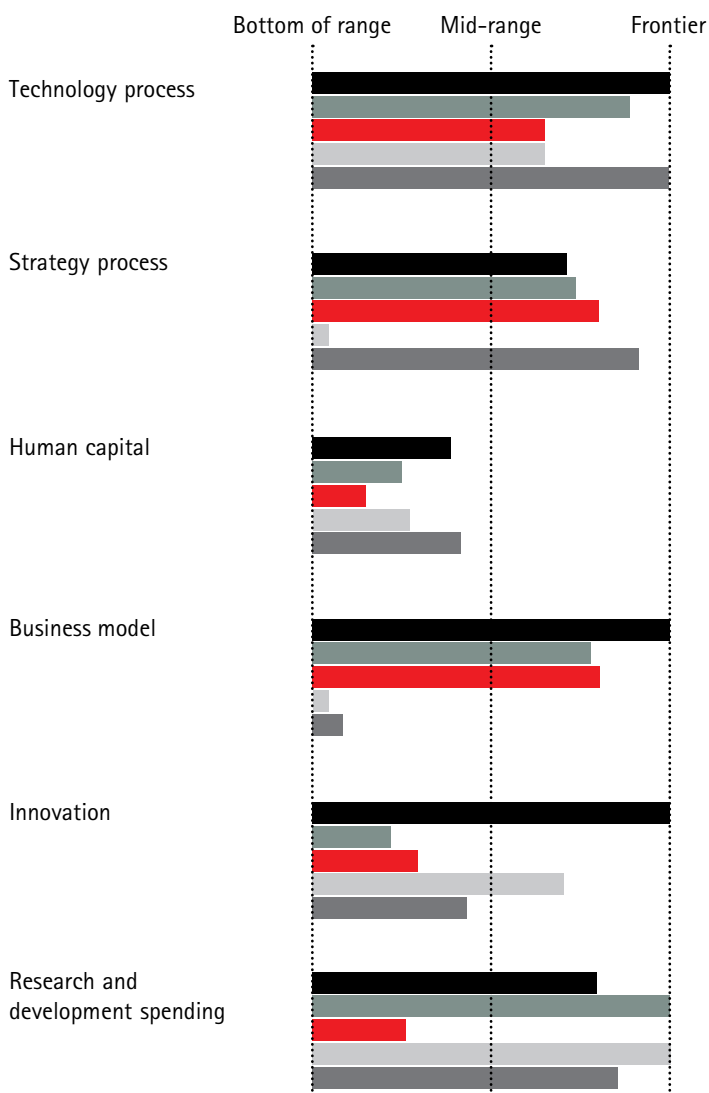Legend:
- The Netherlands
- USA
- China
- Japan
- Germany

Making Markets

Bottom of range | Mid-range | Frontier

- Customer activity cycle
- Digitally contestable markets
- Interfirm collaboration

Sourcing Inputs

Bottom of range | Mid-range | Frontier

- Plant, property, equipment
- Labor
- Finance

Running Enterprises

Bottom of range | Mid-range | Frontier

- Technology process
- Strategy process
- Human capital
- Business model
- Innovation
- Research and development spending

Fostering Enablers

Bottom of range | Mid-range | Frontier

- Organizational flexibility
- Connectivity
- Attitudes in society
- Government spending
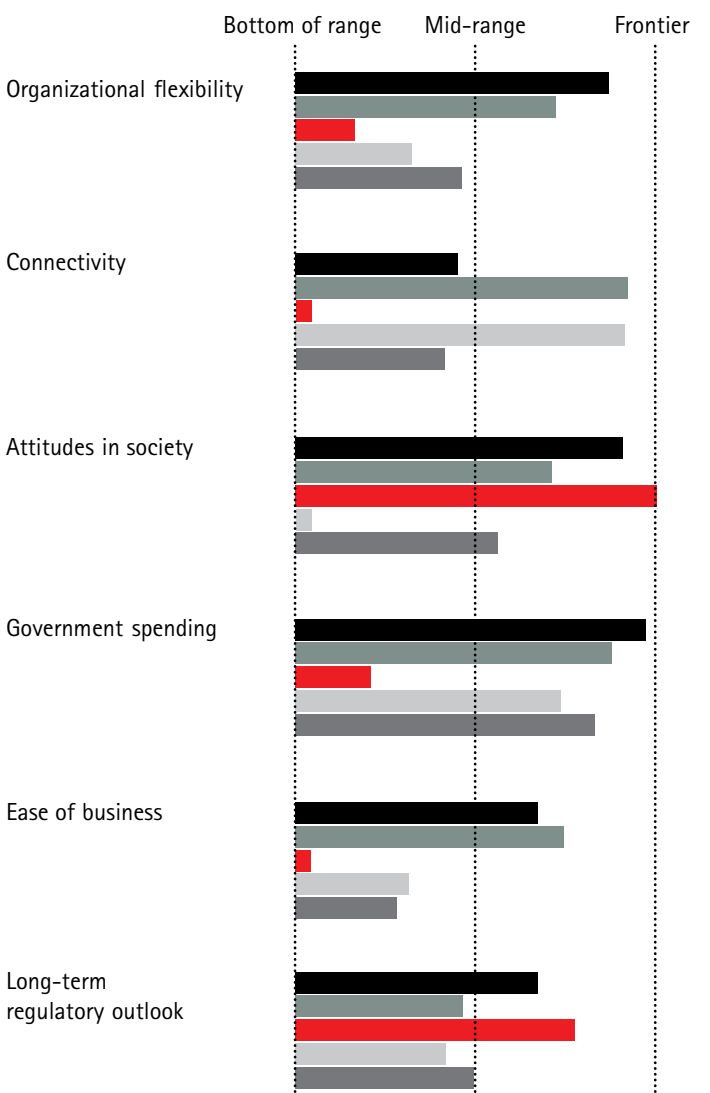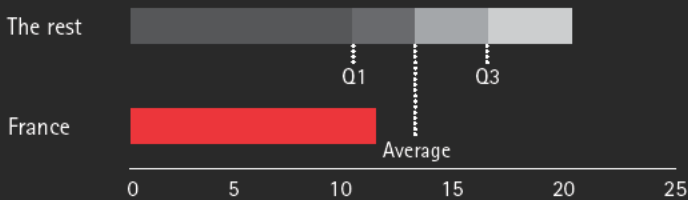- Ease of business
- Long-term regulatory outlook

Figure 5: An illustrative combination of eight interventions that combined would help France increase its Digital Density score by ten points.

Making Markets

Expand internet coverage: Match Dutch and Finnish levels of internet users. Only 88% of the French working age population used the internet in 2012, compared to 94% in the Netherlands and Finland. France also ranks 55th in the world for internet access in schools compared to fifth placed Netherlands and fourth placed Finland.

Improve mobile connections with customers: Match Belgian levels of mobile interaction. Our survey data suggests French firms are placed in the bottom quartile of countries studied in terms of the quality of their mobile connection with customers. Following best practices in some of Europe's better performers by this metric, such as Belgium, Austria and the Netherlands, would boost the Making Markets score.
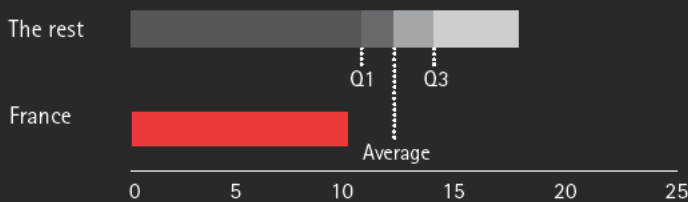
Current Making Markets score

Sourcing Inputs

Embrace remote working: Catch up with the advanced economy average. France once again registers towards the bottom of the rankings in the use of digital technologies to facilitate remote working. Catching up with Germany, Australia and South Korea, which achieved the study average, would improve the scores.

Make better use of the industrial internet: Follow best practices in Austria, Germany, and the Netherlands. France takes the lowest score in the study for making use of the industrial internet.

Current Sourcing Inputs score

Running Enterprises

Human capital: Expand the ICT skills base to Swedish, Finnish and UK levels. ICT workers currently account for 2.9% of the workforce, compared to close to 4.0% in the UK, Sweden and Finland, and around 6% in South Korea.

New digital technologies: Catch up with the European average for cloud and industrial internet use. Our survey data suggests France is behind the curve in the application of these technologies. In an Accenture executive survey published in 2014, only 37% of executives identified machine-to-machine communication as important to their business, compared to a study average of 46%.
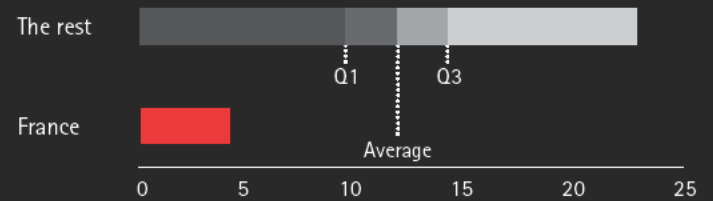
Current Running Enterprises score

Fostering Enablers

Mobile connectivity: Raise mobile broadband usage to UK levels. France currently lags behind most advanced economies in mobile broadband usage, with 0.8 subscriptions per head in 2012 compared to 1.1 in the UK, 1.64 in Finland (Europe's highest) and 1.84 in Japan.

Digital government: Raise confidence in public digital service delivery to German and Belgian levels. France scores highly in the UN e-government index but business surveys show a lack of public confidence in the ability of the public sector to leverage business technologies in France.

Current Fostering Enablers score
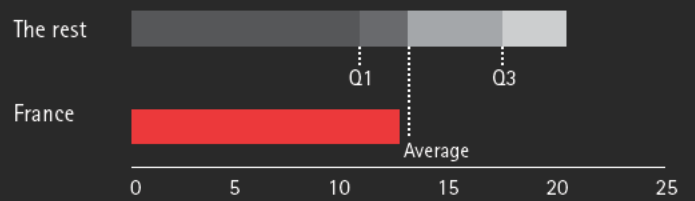
Beyond the technical model – creating a new mindset

While the Digital Density Index's indicators can help pinpoint specific areas for improvement, the broad areas of economic activity that the model describes can also help government and business leaders think differently about how digital technology transforms business and economies to capitalize on new growth opportunities.

Making Markets
Understand and support new
business models and markets

Governments need to rethink how they
view disruptive new business models
beyond outdated industry boundaries.
For their part, businesses need to
engage with governments in new ways.

An example of business and government
working together is the German "Smart
Service World" program. Its aim is to
determine how the business models of
suppliers, manufacturers, and operators
will be revolutionized by new types of
products and services. This public—private
partnership supports Germany's goal
to become the number-one country in
Europe in terms of digital growth.[1]

Running Enterprises
Transform how
you operate

An original selling point of digital
technologies was their ability to
take time, cost, and distance out of
an activity or process. That still holds
true today. Companies and governments
should increase their use of digital
technologies to transform key business
processes to create greater leaps
in efficiency and productivity.

Global mining company Rio Tinto,
for example, has increased free cash
flow in its copper mining operations
by leveraging data streams from
processing equipment to constantly
optimize the production performance
of the plant.[2] In the U.S., the Internal
Revenue Service used predictive
analytics to save $20 billion in tax
fraud refunds in 2012,[3] while the
General Services Administration's Cloud
First policy requires agencies to use
cloud computing where possible to
maximize capacity utilization, improve
IT flexibility and responsiveness, and
minimize cost.[4]
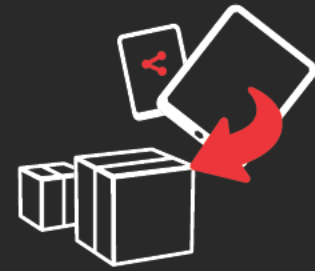
Sourcing Inputs
Think forward to the Industrial
Internet of Things

To keep growing and innovating,
economies and businesses must
use land, talent, capital, ideas, and
other resources ever more effectively.
The Industrial Internet of Things will
further accelerate the digitalization
of supply chains as objects interact
with objects and humans to optimize
processes or create new product and
service hybrids.

For example, Michelin solutions'
EFFIFUEL solution™ uses high-tech and
high-touch to reduce fuel consumption
in truck fleets. Sensors inside vehicles
collect data on fuel consumption,
temperature, speed and location.
Michelin solutions' fuel experts analyze
this data and recommend ways fleet
managers and truck drivers can use less
diesel fuel when driving. The savings
can be as much as 2 liters of fuel for
every 100 kilometers driven.[5]

Fostering Enablers
Look beyond
digital infrastructure

High-speed broadband is important. However, digital requires a much broader range of enabling factors beyond technology infrastructure. Governments and businesses must work together in at least four additional areas to create an environment in which digital can flourish.

The first is making it easier for entrepreneurs to launch digital businesses, which Italy did in 2014 by eliminating registration fees for startups and establishing a legal framework for crowdfunding.

The second is streamlining and simplifying market rules to reflect the degree of commerce, online and offline, that now depends on digital. The European Union, for example, wants to put in place a "digital single market" of 500 million people, based on harmonized data protection rules, ecommerce, telecommunications, copyright and consumer protection.[6]

The third involves initiatives to develop digital skills, such as Estonia's nationwide program called ProgeTiiger (Programming Tiger) to teach children aged seven to 19 how to write software code.[7]

The fourth is consumer and citizen trust that businesses and governments will use their personal data responsibly. Digital trust relies on secure infrastructure and appropriate data protection rules, as well as initiatives by businesses to become increasingly transparent with their customers as to how and why their data is used.

Considering digital density in business growth and investment decisions

As businesses increase their use of digital technologies, they should consider the Digital Density of the countries and regions in which they operate, and target for new investments. The reason is intuitive: A company heavily reliant on digital for growth—for example, a bank that wants to drive aggressive adoption of its online banking capabilities—should favor countries with greater Digital Density.

In fact, a strong digital business infrastructure across a region's markets, supply chains and talent has become a critical criterion for companies seeking to expand or relocate. It's just as important as access to natural resources, a good transportation system, and skilled people. That's especially true as governments begin to seek to actively boost Digital Density to increase growth and national competitiveness of economies. And for businesses whose prospects are closely tied to GDP, Digital Density may be a leading indicator of growth hotspots.

Conclusion

Government and business leaders know they need to embrace digital technology as a source of growth and increased competitiveness. Our analysis confirms the benefit of doing so. But it also reveals the time it takes for increased penetration of digital technologies in economic activity to translate into productivity and growth. That's why moving now, in a targeted way, to embrace digital technologies is more critical than ever. Accenture's Digital Density Index can help leaders more accurately determine how and where they should invest to best leverage digital technologies to drive competitiveness and economic growth, as well as measure their progress along the way. The Index can be a valuable guide for companies and countries as they look to reshape themselves into the digital powerhouses of the future.

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About the research

The Accenture and Oxford Economics study on Digital Density was based on three principal research components:

1. Collection of internationally comparable observations across hundreds of measures of digital technology and related indicators, from public and private sources.

2. From more than 50 of those indicators, the construction of a statistically tested composite Digital Density Index for 33 major economies, 16 of which included partially imputed scores.

3. Multivariate regression analysis to estimate equations that explain variation in countries' total factor productivity by reference to their relative Digital Density Index scores.

The study estimates only the effect of changes in total factor productivity on GDP. Expanding Digital Density likely will have additional positive GDP effects from factors including expansion of the digital/ICT sector and capital deepening across the economy. Further analysis could also consider other effects of expanding Digital Density, including effects on labor markets, public finances, and investment patterns.

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