SHARING ECONOMY PLATFORMS AND COMPETITION: EMPIRICAL ANALYSIS OF RIDESHARING APPS' REGULATION IN BRAZIL

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Plataformas de economia compartilhada e concorrência: análise das regulamentações brasileiras aos aplicativos de transporte individual privado de passageiros

ABSTRACT

In few years, ridesharing apps completely changed Brazilian private transportation dynamics, causing great impact and drawing regulatory authorities' attention. The innovation benefited the society, but also caused a backlash from regulators driven mostly by taxi drivers, who claimed that the apps (mainly Uber) created unfair competition conditions. Through an empirical analysis, this article aims to assess to what extent the existing Brazilian regulations address the criteria defined by the competition authority's Department of Economic Studies. It also seeks to analyze the challenges faced by Brazilian regulators while dealing with innovative services, and the difficulties to structure an effective advocacy strategy.

Keywords: ridesharing apps, Administrative Council for Economic Defense, regulation; competition law, antitrust law.

JEL Classification Codes: A12, A13, H23, H73, K2, K21, K23, K24, K25, L84, L86, L9, L92, R4.

RESUMO

Em poucos anos, os aplicativos de transporte individual de passageiros alteraram a dinâmica de transporte privado no Brasil, chamando a atenção de autoridades reguladoras. A inovação trouxe benefícios à sociedade, mas carregou consigo uma forte reação regulatória influenciada majoritariamente por taxistas, que alegavam concorrência desleal entre os serviços. Por meio de uma análise empírica, o presente artigo pretende identificar em que medida as regulamentações brasileiras existentes implementam os critérios definidos como relevantes pelo Departamento de Estudos Econômicos da autoridade de defesa da concorrência sobre o tema. A pesquisa também objetiva traçar os desafios enfrentados pelos reguladores brasileiros

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ao lidar com inovações tecnológicas e as dificuldades para a estruturação de uma advocacia da concorrência eficaz.

Palavras-chave: aplicativos de transporte individual de passageiros; Conselho Administrativo de Defesa Econômica, regulação, Direito Concorrencial, Direito Antitruste.

> 1. Introduction; 2. Ridesharing apps and taxi regulation in Brazil; 2.1. Regulatory jurisdiction; 2.2. Taxi regulation; 3. Competition Assessment: DEE-CADE's Studies; 4. Analysis of Brazilian local regulation; 4.1. Methodology; 4.2. Comparative analysis; 5. Conclusion: 6. References.

1. Introduction

Ridesharing apps were first introduced in Brazil during 2014 FIFA World Cup in Rio de Janeiro/RJ with Uber's arrival. Shortly after, the app was already operating in some of the country's major capitals: São Paulo/SP, Belo Horizonte/MG and Brasília/DF. In 2018, Uber services were already available in over 100 cities³ and São Paulo/SP was already the place with the most rides in the world⁴.

The innovation promoted by ridesharing apps' largely (and undoubtedly) benefited the society. However, it caused a strong backlash from regulators – mostly driven by taxi drivers' lobby. Competition conditions, car traffic, data sharing and labor issues became the focus of proposed legislations all over the country in both federal and local levels. In this scenario, competition concerns related to taxi drivers' lobby drew particular attention of the Brazilian antitrust agency, the Administrative Council for Economic Defense ("CADE")⁵ and its Department of Economic Studies ("DEE-CADE") issued studies on the effects of ridesharing apps' in the competition ("DEE-CADE's Studies").

The Brazilian Constitution and the federal legislation give both municipalities and the Federal Union jurisdiction to regulate on transportation policies, but municipalities are limited to federal guidelines, if any⁶. In this scenario, taxi drivers' unions and associations put pressure in their Cities Counsels claiming the lack of fair competition conditions imposed by the new

³ https://ubr.to/2OpuOtn. Access: 1.31.2018.

⁴ http://bit.ly/2D44TSt. Access: 6.4.2018.

⁵ Administrative Council for Economic Defense. Individual Passenger Transport Market: Regulation, Externalities, and Urban Balance. CADE's Department of Economic Studies. Available at http://bit.ly/20sxVR9. Access: 9.1.2019.

⁶ Article 22, items IX and XI, and Article 30 of Brazilian Constitution and Article 16 of Federal Law No. 12.587/2012.

apps. Not long after, some municipalities enacted local statutes and regulation to regulate apps' activities. The outcome was a web of very different local provisions around the country.

The main argument for municipal regulation was the promotion and protection of competition conditions. Therefore, this article aims to verify whether (and to which extent) these norms followed DEE-CADE's Studies by answering following questions: (*i*) do existing regulations – both federal and municipal – address the competition concerns indicated on DEE-CADE's Study?; and (*ii*) are there any contradictions between federal and municipal regulations?⁷

To answer these questions, the article reviews the existing regulation in all Brazil's state capitals (27), as well as Federal Law No. 13.640/2018. The goals are (*i*) to compare the main topics and criteria addressed in DEE-CADE's Studies vis-à-vis local and federal regulations, and (*ii*) to measure actual challenges faced by Brazilian regulators dealing with innovative services and the difficulties to structure an effective advocacy strategy.

The article is structured in five main parts. After this introduction, the first part describes previous existing regulation for taxis in Brazil. The second Part explains Brazilian jurisdiction on urban transportation laws. The third part explore DEE-CADE's Studies and organizes an analysis guide to be applied while analyzing the regulations. The fourth part compare regulations (of the 27 state capitals, as well as the Federal Law No. 13.640/2018) with the points highlighted by DEE-CADE. Finally, the fifth part brings final remarks and suggestions for future research.

2. Ridesharing apps and taxi regulation in Brazil

Technological innovation imposes challenges for legal systems all over the world. This is especially evident in civil law countries such as Brazil, where regulations tend to be issued when innovations are already available, aiming to correct market failures and to reduce asymmetries, usually in a reactive – rather than in a preventive – way.

When ridesharing apps arrived in Brazil, taxi drivers' unions and associations lobbied for regulation in this new sector, claiming lack of fair competition. In fact, there was a big gap between both activities: while ridesharing apps had no regulation, taxis were heavily regulated in terms of license issuance, prices, car conditions, among others.

⁷ Considering the timeframe of March 27, 2018, *i.e.*, when Federal Law No. 13.640/2018 was enacted.

Brazilian Constitution and legislation give both municipalities and the federal government jurisdiction to regulate public transportation, which includes taxi and ridesharing apps. Following, the article will explain (i) the debate on jurisdiction between federal government and municipalities and (ii) previous taxi regulation in Brazil.

2.1. Regulatory jurisdiction

Brazilian Constitution defines different jurisdictions for both federal and municipal levels in terms of transportation policy. Federal level has jurisdiction to stablish the guidelines for the national transport policy, traffic and transportation (items IX and XI, Article 22)⁸, while the municipalities shall legislate on these subjects in order to complement federal legislation (item II, Article 30)⁹. Thus, both federative entities are competent to legislate, though with different forms and scopes¹⁰.

Federal Law No. 12.587/2012 establishes guidelines for the National Policy on Urban Mobility. Its Articles 1st and 2nd state that transportation policy should foster the integration of different types of transportation and should improve the accessibility and mobility of people and goods within the municipalities. The goal of the policy is to guarantee individuals equality and "universal access to the cities".

When delimitating the attributions of each federative entity (*i.e.*, municipalities, states, federal district and the federal government), Federal Law No. 12.587/2012 determines that the federal government has the authority to "provide technical and financial assistance to the States, Federal District and Municipalities, under the terms of this Law"; and to "foster technological and scientific development aimed by the principles and guidelines of this Law" (Article 16, items I and IV)¹¹. Especially considering municipalities' jurisdiction, the Law establishes, among other responsibilities, that they should "plan, implement and evaluate the

 $^{^8}$ "Article 22. The Union has the exclusive power to legislate on: IX – guidelines for the national transportation policy; XI – traffic and transportation;".

⁹ "Article 30. The municipalities have the power to: II – supplement federal and state legislations where pertinent;".

¹⁰ Legislation also provides states competence to regulate on specific types of transport, but not on private transport provided by apps.

Author's translation. In the original "I - prestar assistência técnica e financeira aos Estados, Distrito Federal e Municípios, nos termos desta Lei; e VI - fomentar o desenvolvimento tecnológico e científico visando ao atendimento dos princípios e diretrizes desta Lei".

urban mobility policy, as well as to promote the regulation of urban transport services" (Article 18, item $I)^{12}$.

Therefore, the Federal Law No. 12.587/2012 defines that the federal government has authority to establish guidelines and make recommendations in a broader manner, whereas municipalities are entitled to plan, execute and evaluate urban mobility policy in a particular way within their respective territories.

Specifically regarding ridesharing apps, Federal Law No. 13.640/2018 has been published on the Official Gazette only on March 27, 2018, when several cities had already issued their own regulations (18 out of 27). This law's main achievement was to restate the municipal jurisdiction to regulate local transportation.

2.2. Taxi regulation

Another Federal Law (No. 12.468/2011) regulates taxis' activities in Brazil. All over the country, taxi drivers are the only authorized individuals to execute the so-called public individual transport of passengers. In order to become a taxi driver in Brazil, an individual must (i) have a special drive license; (ii) take courses on human relations, defensive direction, first aid cares, basic mechanics and electrics (all provided by a municipal authority's accredited entity); (iii) drive a vehicle with determinate basic characteristics; (iv) have a specific certification; (v) register at the National Institute of Social Security; and (vi) have a Work and Social Security Card (CTPS). Having all these requirements fulfilled, individuals may file for a taxi license.

The license is issued by municipal authorities; therefore, taxi drivers are deemed to execute a public service delegated to private agents. The number of licenses issued in each city is limited and, in most cases, they are not available to be purchased from the public administration anymore¹³. It is also important to notice that issuance of new taxi licenses does not usually follow the growth of cities¹⁴. The main consequence of this barrier to entry in the

¹³ In São Paulo/SP, for example, it is possible to sell taxi licenses as long as a tax of BRL 9,000.00 (approx. USD 2,214.02) is payed to the government.

¹² Author's translation. In the original "I - planejar, executar e avaliar a política de mobilidade urbana, bem como promover a regulamentação dos serviços de transporte urbano".

¹⁴ According to DEE-CADE, there is, on average, one taxi for each group of 376 inhabitants considering only the Brazilian capitals. The numbers vary from 2.058 in Palmas/TO to 135 in Porto Velho/RO. Administrative Council for Economic Defense. *Competition effects of the sharing economy in Brazil: Has Uber's entry affected the cabhailing app market from 2014 to 2016?* CADE's Department of Economic Studies, p. 10-11. Available at https://bit.ly/35g6zVe. Access: 10.21.2018.

taxi market was the creation of a black market for taxi licenses – before Uber's entry in Brazilian market, licenses could cost up to BRL 180.000,00 (approx. USD 44,280.44).¹⁵

Even though taxi regulation varies among municipalities, all norms are uniformly rigid. There are provisions regarding fees, additional values in non-commercial hours and minimum safety and quality standards, for both taxi drivers and vehicles ¹⁶. Also, taxi drivers receive several benefits, like tax benefits and exemptions for both income tax and for the acquisition of cars. ¹⁷

In Brazil, taxis must follow strict rules to operate in each city and, thus, are not free to define their own prices. For instance, in São Paulo/SP, on 2016, all taxi rides started with an initial fee of BRL 4.50 (approx. USD 1.10¹⁸), plus BRL 2.75 (approx. USD 0.68) for each kilometer ridden, and the waiting fee of BRL 33.00 (approx. USD 8.12) per hour ¹⁹. These increase up to 30% at night, on Sundays and during holidays. The same regulatory framework for prices (*i.e.*, initial fee, distance and waiting time) is adopted almost everywhere in Brazil.²⁰

After Uber's arrival, taxi drivers argued that ridesharing apps would be competing on unfair terms, considering they are not subject to the same standards and legal requirements. Among lobbies and riots, taxi drivers' unions and associations exerted pressure to the Cities Counsels all over the country, claiming for fair competition conditions in this market. Consequently, municipalities rushed to regulate apps' activities, under the argument of promotion of fair competition.

In the same timeframe, CADE's Department of Economic Studies published the DEE-CADE's Studies supporting the arguments that ridesharing apps would foster and improve markets' competition.

3. Competition Assessment: DEE-CADE's Studies

This session presents and discusses the main topics addressed in DEE-CADE's Studies. The goal is to facilitate the assessment and comparison of municipal and federal regulation

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¹⁵ http://bit.ly/35iegKE. Access: 12.11.2019.

¹⁶ Administrative Council for Economic Defense. *Competition effects of the sharing economy in Brazil: Has Uber's entry affected the cab-hailing app market from 2014 to 2016?* CADE's Department of Economic Studies, p. 23. Available at https://bit.ly/2QyWDIJ. Access: 10.21.2018.

¹⁷ http://bit.ly/2qjylS2. Access: 12.11.2019.

¹⁸ Prices in dollars estimated on September 6, 2019. Available at http://bit.ly/34251y1. Access: 9.9.2019.

¹⁹ http://bit.ly/2Qy5FPL. Access: 3.19.2018.

²⁰ In Rio de Janeiro/RJ, on March 2018 all taxi rides started with an initial fee of BRL 5.50 (approx. USD 1.35), plus BRL 2.50 (approx. USD 0.62) for each kilometer ridden during week days (from 6am to 9pm), and the waiting fee of BRL 31.50 (approx. USD 7.75) per hour. (http://bit.ly/37eGV57. Access: 3.19.2018)

offered in next session. The present session, therefore, will organize an analysis guide considering this main topics.

Between September 2015 and April 2018 CADE issued several documents analyzing ridesharing apps in Brazil: (i) DEE-CADE's study "Individual Passenger Transport Market: Regulation, Externalities and Urban Balance" ("First Study"), (ii) DEE-CADE's study "Postentry rivalry: The immediate impact of the Uber application on door-to-door taxi rides" ("Second Study"), (iii) a Technical Note, and (iv) DEE-CADE's study "Competition effects of the sharing economy in Brazil: Has Uber's entry affected the cab-hailing app market from 2014 to 2016?" ("Third Study"). The first three documents were issued before the enactment of Federal Law No. 13.640/2018 on March 2018, while the fourth was issued right after it.

The First Study was released in September 2015. In sum, it consists of a summary of Brazilian taxi regulation and an evaluation of pros and cons of the taxis' regulation vis-à-vis the new (then non-regulated) apps. According to this study, the apps are an adequate response to several of the problems originated by taxi regulation, being a satisfactory mechanism of self-regulation.

According to DEE-CADE, taxi regulation has emerged to reduce two major failures in the individual passenger transportation market: (*i*) asymmetric information, considering that consumers do not have prior knowledge about service's quality and have almost no ability to negotiate prices; and (*ii*) negative externalities, either by traffic conditions or by air and noise pollution. However, even though regulation minimizes these market failures, it also generates high social costs. For instance, fare fixing make price competition impossible. Also, the restriction on licenses inhibits entry of new drivers into the market, which may lead to a shortage of supply. All that considered, DEE-CADE suggested (*a*) that there could be less regulation in this market,²¹ and (*b*) that any cross-regulatory standard to be applied indiscriminately across heterogeneous cities should be considered with due caution²².

This leads to the *first question* for the next session, which is the very existence of regulation in each location.

The First Study also states that it would make no sense to restrict ridesharing apps. Besides applying self-regulatory mechanisms, apps were serving a market that was not focused

²¹ Administrative Council for Economic Defense. *Individual Passenger Transport Market: Regulation, Externalities, and Urban Balance*. CADE's Department of Economic Studies, p. 7. Available at http://bit.ly/20sxVR9. Access: 9.1.2019.

²² Idem, p. 16.

on, or was unsatisfactorily covered by taxis until that moment²³. This leads to the *second* question, which is the intent of federal and local regulation to prohibit of apps.

A third point raised by the First Study is the fares (or price) fixing and fares calculating methods. According to the study, if taxis are deregulated, prices tend to follow the logic of the balance between supply and demand. Although it is generally assumed that the regulators establish correct equilibrium prices, this may not be necessarily true²⁴. This leads to the *third question*, which is the existence of price calculating methods.

The last topic addressed in the First Study involves the adoption of minimum quality standards, which should be addressed by regulation according to DEE-CADE²⁵. This leads to the *fourth question*, which is existence of quality standards. In addition, considering a scenario with market failures, it would also be important for local authorities to have at least some information to ground public policy decisions. This information could, for example, be related to license issuance and to infrastructure impacts. This leads to the *fifth and sixth questions*, which are the fixing of maximum limits for license issuance and the requirement of providing information on infrastructure impacts to public authorities.

The Second Study was published by DEE-CADE in December 2015. It aimed to verify the immediate economic impacts of Uber's entry in Brazilian capitals São Paulo/SP, Rio de Janeiro/RJ, Belo Horizonte/MG and Brasília/DF, during the first half of 2015, specifically compared to cab-hailing apps performances²⁶. The results indicate that Uber and taxis work on different relevant markets, since Uber created a new demand for services²⁷. Furthermore, the rivalry between the ridesharing services and taxi rides was expected to grow over time, creating different kinds of substitutability in different niches of consumers – a normal competition

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²³ Idem. p. 7-8. DEE-CADE explains that apps have brought undeniable costumer advantages, such as (i) representing a superior substitute for individual private cars; (ii) representing a superior substitute for taxis; and (iii) competing with taxis and private cars, potentially reducing values of car rents and even vehicle prices.

²⁴ Apud. BEKKEN, J. & LONGVA, F. (2003). *Impact of Taxi Market Regulation*. TOI Report. Oslo, Norway.

²⁵ "The quality loss of vehicle fleet does not seem to be associated with a free market entry, and an adamant regulation does not appear to be able to prevent service quality from deteriorating. However, service quality standards should be addressed regardless of the regulatory model desired". Administrative Council for Economic Defense. Individual Passenger Transport Market: Regulation, Externalities, and Urban Balance. CADE's Department of Economic Studies, p. 9. Available at http://bit.ly/20sxVR9. Access: 9.1.2019.

²⁶ The study adopted a comparative method through the establishment of time periods, control and treatment group references.

²⁷ It is important to consider, however, that the analyzed data referred to an entrance and to a period of consolidation of the market. Therefore, the fact that services were not being part of the same relevant market at that time does not mean that they could never be.

condition that is commonly faced by most players²⁸. That tendency has been proven true so far²⁹.

On February 2017 (more than a year after the Second Study), CADE's General-Superintendence ("SG") has opened a thematic study procedure and requested the DEE-CADE to develop a new study on the market's organization (Procedure No. 08700.000924/2017-87)³⁰. To do so, DEE-CADE contacted established ridesharing companies, entities and individuals on behalf of CADE and analyzed the data obtained.

Uber, Cabify, 99 Taxis, and Easy Taxi were asked to provide comprehensive data on: cities covered³¹, number of rides, night rides, distance, duration, prices of rides, and number of drivers. In addition, the DEE-CADE also requested from São Paulo Major's Office official information regarding technical studies and opinions that established economic and legal justifications for the progressive pricing model adopted in São Paulo.

By the time Federal Law No. 13.640/2018 was enacted, the study was still ongoing and DEE-CADE had issued only a Technical Note (on October 30, 2017). In sum, and in line with the Second Study, DEE-CADE concluded that Uber had created a new demand (capturing users who did not use cab-hailing apps) and was also rivaling and conquering passengers from cabhailing apps. Also, ridesharing apps were capable of minimizing market failures previously mentioned (asymmetric information regarding quality and prices, and negative externalities, such as traffic conditions and air and noise pollution). This means that the market would need less regulation³².

²⁸ In the same sense of DEE-CADE's Studies, the Federal Public Prosecutor's Office (MPF) has published a Public Notice in August 2016. The Notice was structured considering DEE-CADE's first two Studies, as well as technical reports from the Federal Public Prosecutor's Office Support Secretary (SEAP), and from the Secretariat of Economic Monitoring of the Ministry of Finance (SEAE). In general terms, the Note follows a similar position to DEE-CADE, but expressly suggests the adoption of apps' regulation in federal level. DEE-CADE, on the other hand, points out that it would be necessary to be very careful when applying a single standard to several municipalities, without considering their local specificities. Available http://bit.ly/2OtNrw6. Access: 3.18.2018.

²⁹ Administrative Council for Economic Defense. *Competition effects of the sharing economy in Brazil: Has Uber's*

²⁹ Administrative Council for Economic Defense. *Competition effects of the sharing economy in Brazil: Has Uber's entry affected the cab-hailing app market from 2014 to 2016?* CADE's Department of Economic Studies, p. 30. Available at https://bit.ly/37kz1qG Access: 10.21.2018.

³⁰http://bit.ly/2OpwHWZ. Access: 3.25.2018.

³¹ Entrance data of ridesharing and cab-hailing apps may be verified at the Third Study of CADE's Department of Economic Studies.

³² The study published on April 12, 2018 points out that Uber's entry generated an average reduction of 56.8% in the number of taxi rides, and that for every 1% increase in Uber's rides, taxi rides fell approximately 0.09%. These results suggest that, as well as conquering users that did not use cab-hailing apps, Uber also rivaled with taxis, winning over some of its users. In addition, the segment of apps did not react to the increase of the competition, for example, by offering discounts. Analyzing only state capitals, however, taxi rides were reduced in 36.9%, indicating that competitive effects tended to be smaller in cities with larger markets. The results also suggest that only in the capitals of the Southeast, South and Midwest regions Uber's entry generated a reduction in taxi's prices (12.1%), which indicates the taxi market reacted by offering discounts on rides after a longer period of exposure

The Third Study was issued on April 12, 2018, a month after the enactment of Federal Law No. 13.640/2018. In this study, DEE-CADE analyzed competition impacts of Uber's entry into the market, using a sample of 590 Brazilian municipalities between 2014 and 2016. It brings important new conclusions regarding the interactions between the two markets in a post entry period. However, even being outside the scope of the proposed analysis³³, the Third Study brings relevant contributions to the regulatory debate. Therefore, there are references to this study's highlights throughout this article³⁴.

All DEE-CADE's Studies indicate that the debate regarding the need for regulation is still open. The studies are useful as they list main competition-related topics that should or should not be addressed by regulators:

Q.1 Is there regulation regarding ridesharing apps at that location?

Q.2 If positive, does the regulation prohibit the use of the apps?

Q.3 Are there fixed prices or price calculation basis/methods established by the regulation?

Q.4 Are there provisions about service's quality standards?

Q.5 Are there provisions on maximum limits for license issuance?

Q.6 Are there provisions for enabling the measurement of impacts on urban infrastructure?

³³ The Third Study was released 15 days after Federal Law No. 13.640/2018 was enacted. Therefore, this study will not be considered as a main resource for this article for two main reasons. First, because it was issued outside proposed timeframe. Second, and as a consequence of the first reason, regulators had no time to make legislative changes considering its new conclusions and recommendations.

to a competitive environment. Concerning regulation, the study points out that in addition to generating benefits for consumers and encouraging entry in the market, the apps addressed some market failures. The study considers that Federal Law No. 13.640/2018 was parsimonious, included safety standards and did not impose major regulatory barriers to entry and price restriction. It recommends municipal regulation to follow the same direction, not being too restrictive. Finally, the study highlights that the debate on the gradual deregulation of taxi market is necessary to encourage business models with more competition, leading to benefits for consumers with innovative services, better quality, security, lower prices and more options. Therefore, in general, legislative recommendations remained the same as those of the previous Studies.

³⁴ It is also worth mentioning the recent judgment of cases involving these markets by CADE. In July 2017, CADE's Tribunal has decided to discontinue an Administrative Procedure that investigated taxi drivers' associations for exclusionary practices, sham litigation and the attempt to close entry of new apps, understanding there was no sufficient evidence of the alleged conducts (Administrative Procedure No. 08700.006964/2015-71). In October 2018, CADE's General Superintendence has also recommended that the Tribunal discontinue an investigation against Uber for the alleged practices of dumping, cartel and adoption of uniform practices. The General Superintence has recommended, however, that Uber revises its price-making policy, pointing out that price-multipliers based on an offer/demand system may be anticompetitive if the demand is manipulated by drivers, and that the possibility of competition between drivers for a passenger through the offer of discounts might be a possible alternative (Preparatory Procedure No 08700.008318/2016-29).

With these main competition topics listed, the regulatory scenario will be drawn on the following part, through an empirical analysis, making it possible to identify contradictions between regulations and the recommendations made by DEE-CADE.

4. Analysis of Brazilian local regulation

Brazil has over 5.570 cities³⁵ and had no federal regulation regarding ridesharing apps until March 27, 2018. Therefore, in order to conduct this study, it was necessary to define a methodological framework, which is explained in topic 4.1 below. The comparative analysis of regulations will be carried out in topic 4.2.

4.1. Methodology

The analysis of local regulations demanded both geographical and temporal delimitations. The geographical scope of the analysis focused on state capitals (27 including the Federal District). In addition to the purpose of not excluding any Brazilian region, this delimitation considered the greater number of inhabitants in these cities, greater urban infrastructure, greater transportation demand and, therefore, greater probability of regulation existence.

The temporal delimitation, by turn was until March 27, 2018 – date of the publication of Federal Law No. 13.640/2018 on the Official Gazette. As previously exposed in topic 2.1, both municipalities and the Federal Union have the jurisdiction to legislate on the matter, even though with different scopes. Federal regulation is an important reference to the analysis, once local governments should follow its guidelines. This temporal delimitation also enables the comparison between local regulations and the Federal Law.

In order to make the comparison more detailed and complete, the same methodology was applied to existing local regulations by the time Federal bill was first approved by the Chamber of Deputies and forwarded to the Federal Senate, on April 4th, 2017³⁶. This second

³⁵ Based on a study conducted by the Brazilian Institute of Geography and Statistics ("Instituto Brasileiro de Geografia e Estatística – IBGE") in 2016, published in the Federal Official Gazette in 30.8.2016. Available at http://bit.ly/35iaHE9. Access: 1.1.2017.

³⁶ Brazilian Congress composition is similar to the United States of America, with a House of Deputies and a Federal Senate. The legislative process has similarities as well. It starts with the introduction of the following propositions: law project, resolution, legislative decree, provisional decree and proposal of amendment to the Constitution. Parliamentarians have the initiative to the lawmaking process, as well as the President of the Republic, the Supreme Court, the Higher Courts, the Republic's General Attorney and the citizens. All propositions are discussed in both Houses and are submitted to various stages of analysis and voting. The analysis of constitutionality, admission and merits are made in the Committees, which do not have conclusive power, working

moment will enable the identification of changes in municipal regulations during the federal legislative procedure, over an almost one-year period.

After defining both geographical and temporal scopes of the analysis, next step was to identify existing local regulations. I carried out a research in state capitals' Official Gazettes' websites, as well as City Halls and City Councils' websites, using as search key-words "individual transport" ("transporte individual") and "transport applications" ("aplicativos transporte"). In addition, information requests were made both on City Halls and City Councils' websites of all capitals, through the Information Access Law ("Lei de Acesso à Informação", or "LAI"), the Federal Law No. 12.527/2011³⁷⁻³⁸.

This research analyzes the existence of regulations and their consistency with competition concerns indicated in DEE-CADE's Studies. Therefore, case law research on issues involving ridesharing apps are outside the scope of analysis - even though judicial decisions may suspend regulations' effects, or even declare them unconstitutional – which is known to be happening in some cities³⁹.

4.2. Comparative analysis

The research found out that 18 out of the 27 Brazilian state capitals adopted regulation targeting ridesharing apps. The table below summarizes this outcome.

Table 1 – Synthesis of ridesharing apps' regulations identified in Brazilian state capitals

State Capital	Regulation	
Aracaju/SE	Law Decree No. 4.738, of December 28, 2015 ("Law Decree No. 4.738/2015")	
Belém/PA Law No. 9.233, of December 6, 2016 ("Law No. 9.233/2016")		
Belo Horizonte/MG Law Decree No. 16.832, of January 23, 2018 ("Law Decree No. 16.832/201		
Brasília/DF	Law No. 5.691, of August 2, 2016 ("Law No. 5.691/2016"), Law Decree No. 38.258,	
Diasilia/DF	of June 7, 2017 ("Law Decree No. 38.258/2017")	

only as consultants. When a bill process starts at the House of Deputies, the approved text follows to the Senate's appreciation. If the Senate makes text modifications, the bill must return to the House of Deputies for second approval. After the National Congress deliberations, there is still the Executive deliberation, that is, the President of the Republic may sanction (approve) or veto (prohibit) the proposition or parts of it. In the first case, the project becomes a law. In the case of veto, the project is sent back to the Congress, that decides to maintain or not the restrictions. If the project is sanctioned, it goes to a complementary phase, in which the President of the Republic has a 48 hours term to promulgate it. Information available at http://bit.ly/20pxIOE. Access: 3.25.2018.

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³⁷ The Federal Law No. 12.527/2011 regulates the access to public administration information and government acts from all federative members, as determined by Article 5, item XXXIII; Article 37, third paragraph, item II; and Article 216, second paragraph of Brazilian Constitution. Information shall be provided to any citizen and shall be able to be required through official websites.

³⁸ All documents obtained during the research, both through the key word research and through requests made with LAI are available and may be verified on: https://bit.ly/2Xsb24k.

³⁹ http://bit.ly/35icOaW. Access: 10.21.2018.

State Capital	Regulation
Campo Grande/MS	Law Decree No. 13.157, of May 16, 2017 ("Law Decree No. 13.157/2017")
Curitiba/PR	Law Decree No. 1.302, of July 18, 2017 ("Law Decree No. 1.302/2017")
Fortaleza/CE	Law No. 10.553, of December 23, 2016 ("Law No. 10.553/2016")
Goiânia/GO	Law Decree No. 2.890, of October 6, 2017 ("Law Decree No. 2.890/2017")
Maceió/AL	Law No. 6.683, of August 9, 2017 ("Law No. 6.683/2017")
	Law No. 2.330, of July 13, 2017 ("Law No. 2.330/2017"), Law Decree No. 1.428, of
Palmas/TO	July 31, 2017 ("Law Decree No. 1.428/2017"), Resolution No 5, of September 20,
	2017
Porto Alegre/RS	Law No. 12.162, of December 9, 2016 ("Law No. 12.162/2016"), Law Decree No.
Folio Alegie/KS	19.700, of March 13, 2017 ("Law Decree No. 19.700/ 2017")
Recife/PE	Law No. 18.176, of October 28, 2015 ("Law No. 18.176/2015"), Law Decree No.
Recile/FE	29.558, of April 4, 2016 ("Law Decree No. 29.558/ 2016")
Rio de Janeiro/RJ	Law No. 6.106, of November 25, 2016 ("Law No. 6.106/2016")
Salvador/BA	Law No. 9.066, of June 1, 2016 ("Law No. 9.066/2016")
São Luís/MA	Law n° 429, of November 23, 2016 ("Law n° 429/2016")
São Paulo/SP	Law Decree No. 56.981, of May 10, 2016 ("Law Decree No. 56.981/2016")
Teresina/PI	Law No. 4.942, of September 2, 2016 ("Law No. 4.942/2016")
	Law Decree No. 16.770, of July 28, 2016 ("Law Decree No. 16.770/2016"), Law
Vitória/ES	Decree No. 16.785, of August 18, 2016, Order No 16, of August 26, 2016, Order No
	25, October 12, 2016

Source: author's elaboration.

DEE-CADE's Studies point out that ridesharing apps can reduce market failures such as asymmetric information (on quality and prices) and negative externalities (*e.g.*, traffic conditions and air and noise pollution). According to these Studies, authorities should think about the real need to maintain regulations in these markets⁴⁰. Therefore, considering that there is no legal imposition for local regulation on federal level, more than 66.6% of Brazil's state capitals would be contradicting DEE-CADE's Studies. Similar conclusion could be applied to federal analysis with the enactment of Federal Law No. 13.640/2018 (Q.1).

Following to the analysis whether adopted regulations prohibit the use of the apps (Q.2), 8 out of the 27 Brazilian state capitals prohibited them. In 7 state capitals (Aracaju/SE, Balém/PA, Fortaleza/CE, Rio de Janeiro/RJ, Salvador/BA, São Luís/MA e Teresina/PI), the prohibition was expressly stated:

"Article 1 - It is prohibited, within the scope of the Municipality of Rio de Janeiro, the remunerated transportation of passengers in private cars, by

⁴⁰ Administrative Council for Economic Defense. *Individual Passenger Transport Market: Regulation, Externalities, and Urban Balance*. CADE's Department of Economic Studies, p. 38. Available at http://bit.ly/20sxVR9. Access: 9.1.2019.

ways of collective and/or individual transportation, whether registered or not in applications or sites." Law No. 6.106/2016, Rio de Janeiro/RJ⁴¹.

"Article 1 - It is prohibited, within the scope of the Municipality of Salvador, the remunerated transportation of people in private vehicles.

Sole paragraph. Private vehicles are those not included in the municipal registers as approved for the transportation of people, by authorization, permission or public concession and compliance with all rites contained in federal, state and municipal legislation." Law No. 9.066/2016, Salvador/BA⁴². (Author's highlights)

In Recife/PE, there was a different scenario. Law No. 18.176/2015 established, in its Article 3:

"Article 3 - The service offered by application softwares under the terms of Article 1 may only be provided by drivers and vehicles with registration and valid authorization within Recife's City Hall, being forbidden the provision of drivers and vehicles that do not meet the requirements of Federal Law No. 12.468/2011 or the municipal legislation that regulates the individual transport of passengers". Law No. 18.176/2015, Recife/PE⁴³. (Author's highlights)

By turn, Law Decree No. 29.558/2016 from Recife/PE, which regulated Law No. 18.176/2015, stated, in its first Article, paragraph first, that:

"Article 1 - [...].

§ 1 - The individual service of remunerated passenger transportation may only be provided by individuals or legal entities that, as established in Municipal Law No. 17.537/2009, and subsequent amendments, integrate the Municipal Taxi Service of Recife - SMTX/Recife." Law Decree No. 29.558/2016, Recife/PE⁴⁴. (Author's highlights)

⁴¹ Author's translation. In the original "Art. 1º Fica proibido, no âmbito do Município do Rio de Janeiro, o transporte remunerado de passageiros em carros particulares, a título de transporte coletivo e/ou individual, estando ou não cadastrados em aplicativos ou sites".

⁴² Author's translation. In the original "Art. 1º Fica proibido, no âmbito do Município de Salvador, o transporte remunerado de pessoas em veículos particulares. Parágrafo único. São veículos particulares aqueles que não constam nos cadastros municipais como homologados para o transporte de pessoas, mediante autorização, permissão ou concessão pública e cumprimento de todos os ritos constantes na legislação federal, estadual e municipal".

⁴³ Author's translation. In the original "Art. 3° - O serviço oferecido pelo software aplicativo nos termos do artigo 1° só poderá ser prestado por motoristas e veículos com cadastros e autorizações vigentes junto a Prefeitura do Recife, sendo vedada a disponibilização de motoristas e veículos que não atendam às exigências de Lei Federal No. 12.468/2011 ou a legislação municipal que disciplina o transporte individual de passageiros".

⁴⁴ Author's translation. In the original "Art. 1° [...] § 1° O serviço individual de transporte remunerado de passageiros somente poderá ser prestado por pessoas físicas ou jurídicas que, nos moldes estabelecidos na Lei Municipal No. 17.537/2009, e alterações posteriores, integrem o Serviço Municipal de Táxi do Recife – SMTX/Recife."

Therefore, in Recife/PE there was an indirect prohibition of ridesharing apps, once the service could only be provided by taxis. Considering that ridesharing apps' activities consist precisely in providing services with specificities that would differ them from individual public transport, a regulation that establishes that the transportation can only be provided by taxi drivers ends up prohibiting the availability of this new service.

In national scenario, the eight banning capitals represent 29.6% of Brazilian capitals, as illustrated by Figure 1. Dividing the prohibitions on ridesharing apps into Brazilian regions, the Northeast region was the one with major percentage of prohibition (66.6%), followed by Southeast (25%), North (14.3%), and Midwest and South regions, both without capitals prohibiting the apps.

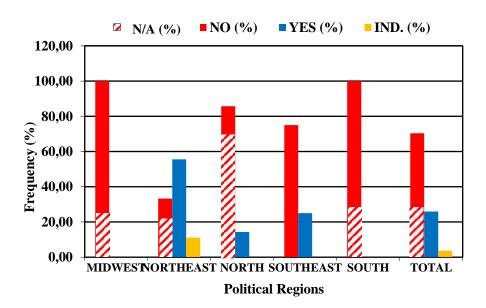


Figure 1 – Analysis of ridesharing apps' prohibition in Brazilian state capitals by political regions

Source: author's elaboration.

"N/A" – cases in which there is no regulation and, therefore, no prohibition to apps. "IND." – indirect prohibition

In these eight capitals, violation of the provisions was punishable with pecuniary fines that may reach up to BRL 1,700.00 (approx. USD 418.20), doubled in hypothesis of recurrence, in addition to the seizure of the vehicle and possible criminal responsibility⁴⁵.

⁴⁵ In Aracaju/SE and in Belém/PA, for example, Law Decree No. 4.738/2015, and Law No. 9.233/2016, fix pecuniary fines of BRL 1,700.00 (approx. USD 418.20). In Rio de Janeiro/RJ, Law No. 6.106/2016 and Law Decree No. 40.518/2015 establish pecuniary fines of BRL 1,360.29 (approx. USD 334.63).

Moving forward to the analysis of questions (Q.3) to (Q.6), considering they address specific conditions of regulations that do not prohibit ridesharing apps, only the following capitals were considered in the analysis: Belo Horizonte/MG, Brasília/DF, Campo Grande/MS, Curitiba/PR, Goiânia/GO, Maceió/AL, Palmas/TO, Porto Alegre/RS, São Paulo/SP and Vitória/ES, as well as the Federal Law No. 13.640/2018.

Following the attributions determined both by Brazilian Constitution and by Federal Law No. 12.587/2012, Federal Law No. 13.640/2018 defines a general framework for local regulation, but also continues to guarantee municipal authorities jurisdiction to regulate specific issues according to their individual realities. The only question addressed in a more specific way by Federal Law No. 13.640/2018 involves (Q.4), once it establishes, in its Article 3, vehicles should attend to maximum age and other characteristics required by municipal authorities⁴⁶.

Regarding the existence of defined prices or price calculation basis/methods (Q.3), provisions about service's quality standards (Q.4) and provisions for enabling the measurement of impacts on urban infrastructure (Q.6), the research identified that all three questions were addressed by all capitals' regulations.

Even though regulations did not fix exact prices to be charged to the final consumer – as it happens with taxis –, all of them fixed public prices, tariffs and registration fees (for both apps or for each vehicle registered). Considering these values may be passed on to the final consumer, authorities should be cautious when interfering in prices through different forms (Q.3)⁴⁷. These fees were imposed in addition to the municipal service tax ("*Imposto Sobre Serviço de Qualquer Natureza – ISS*"). In Brasília/DF, for example, the first authorization for apps may cost BRL 490.00 (approx. USD 120.54), plus BRL 40.00 (approx. USD 9.84) for each vehicle every year⁴⁸. In Campo Grande/MS, public price corresponded to 7% of each

⁴⁶ In the original "Art. 3 [...] Art. 11-B [...] II – Conduzir veículo que atenda aos requisites de idade máxima e às características exigidas pela autoridade de trânsito e pelo poder público municipal e do Distrito Federal".

⁴⁷ It is important to distinguish price regulation from the definition of public taxes. By price regulation, the present article comprehends the hypothesis in which the government fixes the exact prices to be charged for the service. The authorities may, however, not fix the prices, but create taxes and fees. Despite being different mechanisms, both of the interventions may result in direct impacts in the final prices charged on consumers, since the agents may pass on these values. According to Luís Eduardo Schoueri, the transfer of taxes applied to sellers or buyers is a factor that depends on supply and demand's elasticity, and it is not correct to say that a particular type of tax is transferable to the consumer and the other is not. According to the author, the more elastic the supply is, or the less elastic the demand is, greater will be the share of tributes passed on to consumers. SCHOUERI, Luís Eduardo. *Direito tributário*. 2ª edição. São Paulo: Saraiva, 2012. Cap. I.6 – "A questão da incidência econômica tributária". ⁴⁸ Order No. 52/2017.

kilometer⁴⁹. In Curitiba/PR, the amount for each kilometer was BRL 0.08 (approx. USD 0.02)⁵⁰. These values and criteria vary in a large scale from city to city.

Also, fixing prices or fees may result in undesired consequences for markets, increasing prices for final consumers and making harder, for example, the access to the service for a larger part of the population, or increasing the barriers of entry. Considering DEE-CADE's position that apps are presenting a satisfactory self-regulation mechanism, authorities should avoid interfering in prices⁵¹.

Regarding provisions about service's quality standards (Q.4)⁵², DEE-CADE explains, that they should be addressed regardless of the desired regulatory model⁵³. In different ways, all regulations analyzed, including Federal Law No. 13.640/2018, had provisions regarding consumer welfare.

Most regulations adopted maximum age requirements for vehicles, required drivers had taken customer service's courses, and disciplined the use of badges on vehicle windows. There were regulations that went further, including gender diversity policies for female drivers (São Paulo/SP Decree No. 56.981/2016) and accessibility policies (Brasília/DF Law No. 5.691/2016, Porto Alegre/RS Law No. 12.162/2016 and Palmas/TO Law Decree No. 1.428/2017).

Finally, regarding provisions on the measurement of impacts on urban infrastructure (Q.6), the research looked up for provisions that would enable the Public Administration to reform strategies regarding traffic and improve public transport policies⁵⁴. All analyzed regulations adopted provisions establishing that information on origin and destination, time and distance, ride's maps, drivers' identification, charged fees, and consumer evaluation should be available to the Public Administration⁵⁵. According to DEE-CADE, considering a scenario with

⁵¹ It should be noticed that regulations seem to make such provisions aiming to implement and finance public policies of traffic control, transportation access and infrastructure investments. In São Paulo/SP, for example, Article 12 of Law Decree No. 56.981/2016 establishes that tariffs should vary according to the period of time and location of vehicles. São Paulo/SP and Vitória/ES also have specific rules to promote pool rides, the ones shared by more than one user. Maceió/AL, on the other hand, prohibits pool rides (Article 4, second paragraph, Law No. 6.683/2017).

⁴⁹ Article. 9, § 1 of Law Decree No. 13.157/2017.

⁵⁰ Article 10 of Law Decree No. 1.302/2017.

⁵² As quality standards, were considered provisions that have as focus consumer welfare, aiming security and the balance of forces between providers and consumers. For more details see: ZANATTA, Rafael A. F.; PAULA, Pedro C. B. de; KIRA, Beatriz. *Inovações regulatórias no transporte individual: o que há de novo nas megacidades após o Uber?* Research developed by the Associação InternetLab de Pesquisa em Direito e Tecnologia. São Paulo: 2016. Available at http://bit.ly/35rs1H5. Access: 3.18.2018.

⁵³ Based on studies carried out in developed countries on the deregulation of the taxi market. (Administrative Council for Economic Defense. *Individual Passenger Transport Market: Regulation, Externalities, and Urban Balance*. CADE's Department of Economic Studies, p. 9. Available at http://bit.ly/2OsxVR9. Access: 9.1.2019.) ⁵⁴ Idem. p. 13-15.

⁵⁵ As an example, these provisions may be found in Article 8 of Palmas/TO Law No. 2.330/2017.

market failures and consumption externalities, local authorities should have at least some information to support public policy decisions. Through the collected data, authorities may work on concrete proposals and solutions – including the improvement of their regulations – to deal with traffic issues, since they are an externality that might arise from the very service provide by the apps.

Even though DEE-CADE considered important for authorities to require this kind of information so that they could develop public policies considering traffic impacts, it also pointed out that regulations should avoid defining an exact number of licenses (Q.5). This restriction could cause distortions between supply and demand, result in price increases, and create barriers to the entry of new players.

The only capital in which the research has identified a provision that could result in a restriction of maximum limits for license issuance was Palmas/TO, whose Decree No. 1.428/2017 established that:

"Article 10 - The intensive exploitation of the road network by services of private and paid motorized transport of passengers shall be subject to authorization to be granted together with the authorization referred in art. 2° of this Decree, by the Municipal Public Administration, within the available vacancies. [...]

§3° - The OPT shall indicate the number of places required, and if there are more requirements than vacancies available, ARP shall make a proportional division between enterprises. Decree No. 1.428/2017, Palmas/TO⁵⁶. (Author's highlights)

The following table summarizes all provisions made by state capitals' regulations regarding questions (Q.3) to (Q.6):

	Locality	Regulation		
	Belo Horizonte/MG	Article 6, Law Decree No. 16.832/2018		
	Brasília/DF Articles 4 and 14, Law No. 5.691/2016; Articles 20, 21 a			
		Decree No. 38.258/2017; Order No 51, September 27/2017; Order No		
		56/2017		
Q.3	Campo Grande/MS	Article 9, Law Decree No. 13.157/2017		
	Curitiba/PR	Articles 7, 9 and 10, Law Decree No. 1.302/2017; Articles 10 and 11,		
	Curinba/PK	Resolution No 3/2017		
	Goiânia/GO	Articles 6 to 10 and 26, XVIII, Law Decree No. 2.890/2017		
	Maceió/AL	Article 3, Law No. 6.683/2017		

Table 2 – Synthesis of answers to questions (Q.3) to (Q.6), by locality

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⁵⁶ Author's translation. In the original "Art. 10. A exploração intensiva da malha viária pelos serviços de transporte motorizado privado e remunerado de passageiros é condicionada a autorização a ser concedida conjuntamente com a autorização de que trata o art. 2º deste Decreto, pela Administração Pública Municipal, no limite das vagas disponíveis. [...] § 3º A OPT deverá indicar o número de vagas pretendidas que, caso seja superior as vagas disponíveis, caberá a ARP proceder a divisão proporcional entre as autorizatárias".

	Palmas/TO	Articles 5 and 16, Law No. 2.330/2017; Article 10 §4°, Law Decree No. 1.428/2017				
	Porto Alegre/RS	Article 4, Law No. 12.162/2016; Article 8, Law Decree No. 19.700/2017				
	São Paulo/SP	Articles 8 to 12, Law Decree No. 56.981/2016; Article 1, Resolution No 3, Municipal Road Use Committee				
	Vitória/ES	Article 8, Law Decree No. 16.770/2016				
	Federal	Article 3, Federal Law No. 13.640/2018				
	Belo Horizonte/MG	Articles 11 and 12, Law Decree No. 16.832/2018				
	Brasília/DF	Articles. 3 to 6, 9 to 11 and 14, Law No. 5.691/2016; Articles 11, 16, Law Decree No. 38.258/2017; Order No 81/2017				
	Campo Grande/MS	Articles 7, 12, and 15 Law Decree No. 13.157/2017				
	Curitiba/PR	Articles 6 and 14, Law Decree No. 1.302/2017				
Q.4	Goiânia/GO	Articles 16 to 18 and 26 to 28, Law Decree No. 2.890/2017				
Q.4	Maceió/AL	Articles 4 and 8, Law No. 6.683/2017				
	Palmas/TO	Article 17, Law No. 2.330/2017; Articles 5 to 7, Law Decree No.				
	Pallias/10	1.428/2017				
	Porto Alegre/RS	Articles 3, 5, III, IV and VI and 11, I and II, Law No. 12.162/2016				
	São Paulo/SP	Articles 6, 12, 15, 16 e 35 Law Decree No. 56.981/2016; Law Decree No.				
		58.084/2018; and Articles 5 to 9 Resolution No 1 and Article 5, Resolution				
	Vitória/ES	5/2016, Municipal Road Use Committee Articles 6, 14 and 21 Law Decree No. 16.770/2016; Order No 25/2016				
	VIIOIIA/ES	Articles 6, 14 and 21 Law Decree No. 16.770/2016, Order No 25/2016				
Q.5	Palmas/TO	Article 10 §3°, Law Decree No. 1.428/2017				
	Tumas/TO	Titude 10 35 , Eaw Beelee 110. 1. 120/2017				
	Belo Horizonte/MG	Article 8, IX, Law Decree No. 16.832/2018				
		Article 4, IV, 18, III, 23 and 61 Law Decree No. 38.258/2017; Order No				
	Brasília/DF	54/2017; Order No 77/2017				
	Campo Grande/MS	Articles 4, 25 and 26 Law Decree No. 13.157/2017				
	•	Articles 4, 6 and 15, Law Decree No. 1.302/2017; Articles 5 and 12,				
Q.6	Curitiba/PR	Resolution No 3/20172017				
	Goiânia/GO	Article 26, XIV to XVII and XIX, Law Decree No. 2.890/2017				
	Maceió/AL	Article 2 §2°, Law No. 6.683/2017				
	Palmas/TO	Articles 8 and 9, Law No. 2.330/2017				
	Porto Alegre/RS	Articles 3 and 35 Law No. 12.162/2016				
	São Paulo/SP	Articles 4, 35 and 36 Law Decree No. 56.981/2016				
	Vitória/ES	Articles 21 and 22 Law Decree No. 16.770/2016				
		Source: author's elaboration				

Source: author's elaboration.

Considering the above described outcomes, Table 3 below summarizes the comparative analysis between Federal Law No. 13.640/2018, state capitals' regulations and DEE-CADE's Studies:

Table 3 – Comparative synthesis between DEE-CADE's Studies, Federal Law No. 13.640/2018 and state capitals' regulations, through answers to questions (Q.3) to (Q.6).

	Q.3	Q.4	Q.5	Q.6
Federal Law No. 13.640/2018	No	Yes	No	No

Belo Horizonte/MG	Yes	Yes	No	Yes
Brasília/DF	Yes	Yes	No	Yes
Campo Grande/MS	Yes	Yes	No	Yes
Curitiba/PR	Yes	Yes	No	Yes
Goiânia/GO	Yes	Yes	No	Yes
Maceió/AL	Yes	Yes	No	Yes
Palmas/TO	Yes	Yes	Yes	Yes
Porto Alegre/RS	Yes	Yes	No	Yes
São Paulo/SP	Yes	Yes	No	Yes
Vitória/ES	Yes	Yes	No	Yes
DEE-CADE	No	Yes	No	Yes

Source: author's elaboration

The comparative analysis indicates, therefore, that none of the state capitals' regulations was in absolute harmony with the recommendations made by DEE-CADE's Studies, since all of them had provisions that interfered on price calculation basis/method, through different forms (Q.3). Besides, the regulation of Palmas/TO established provisions on maximum limits for license issuance (Q.5). On the other hand, all capitals' regulations had provisions regarding service's quality standards and measurement of impacts on urban infrastructure, as recommended by the Studies.

Federal Law No. 13.640/2018, as previously exposed, fixes general basis for regulation, addressing more specifically only service's quality standards (Q.4), which was followed by all capitals that regulated the apps. Although it does not address provisions for enabling the measurement of impacts on urban infrastructure (Q.6), it does not prohibit municipalities to do so. Therefore, it is possible to consider that the Federal regulation is in accordance DEE-CADE's Studies recommendations, especially considering its preoccupation with a federal regulatory standard to be applied indiscriminately in heterogeneous cities⁵⁷.

The same research was carried out eleven months before, on April 4, 2017, when the Federal bill was first approved by the Chamber of Deputies and forwarded to the Federal Senate. At that time, Federal Congress was still analyzing three federal bills. In addition, 10 out of the 27 capitals prohibited ridesharing apps, and only 5 of them allowed the service and provided regulations (Brasília/DF, Campo Grande/MS, Porto Alegre/RS, São Paulo/SP and Vitória/ES).

⁵⁷ Administrative Council for Economic Defense. *Individual Passenger Transport Market: Regulation*, Externalities, and Urban Balance. CADE's Department of Economic Studies, p. 16. Available at http://bit.ly/2OsxVR9. Access: 9.1.2019.

None of the regulations was in accordance with the recommendations made by DEE-CADE's Studies, including the federal bills, as may be verified by the table below⁵⁸:

Table 4 – Comparative synthesis between DEE-CADE's Studies, Federal Law bills and state capitals' regulations, through answers to questions (Q.3) to (Q.6), in April 4, 2017

	Q.3	Q.4	Q.5	Q.6
Federal bill 28/2017	N/A	N/A	N/A	N/A
Federal bill 530/2015	Yes	Yes	No	No
Federal bill 726/2015	No	Yes	No	No
Brasília/DF	Yes	Yes	No	No
Campo Grande/MS	No	Yes	Yes	Yes
Porto Alegre/RS	Yes	Yes	No	Yes
São Paulo/SP	Yes	Yes	No	Yes
Vitória/ES	Yes	Yes	No	Yes
DEE-CADE	No	Yes	No	Yes

Source: author's elaboration

"N/A" – not applicable, considering bill prohibited ridesharing apps.

Therefore, even though not all state capitals' regulations perfectly matched the criteria addressed by DEE-CADE in its Studies, in an almost one-year-period a sensible movement in that direction could be noticed. A major important step was that the Federal Law sanctioned does not prohibit ridesharing apps, as one of the federal bills previously did. In addition, the number of capitals that prohibited ridesharing apps suffered a reduction from 10 to 8 (once Belo Horizonte/MG, João Pessoa/PB and Maceió/AL no longer prohibited the apps, and São Luís/MA edited a prohibiting regulation meanwhile). Furthermore, by 2018, all capitals with regulations had provisions regarding service's quality standards and measurement of impacts on urban infrastructure.

5. Conclusion

This study proposed a comparison between the main competition concerns addressed by DEE-CADE in its Studies and the municipal and federal regulations regarding ridesharing apps, measuring actual challenges faced by Brazilian regulators dealing with innovative services and markets.

The empirical analysis has revealed that, by the time the Federal Law No. 13.640/2018 was enacted, on March 27, 2018, 18 out of the 27 Brazilian state capitals had regulation

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⁵⁸ All documents obtained during the research carried out in April 2017, both through the key word research and through requests made with LAI are available and may be verified on: https://bit.ly/2QJcw9l.

regarding ridesharing apps. Of those, 8 capitals prohibited the apps, fixing pecuniary fines for violations, among other penalties. The prohibition of ridesharing apps is not only in disagreement with Federal Law No. 13.640/2018, but also with the recommendations made by DEE-CADE's Studies.

The Federal Law No. 13.640/2018 itself may be considered to follow DEE-CADE's recommendations, especially its concerns with a federal regulatory standard to be applied indiscriminately in heterogeneous cities. In this sense, the federal regulation fixes a general basis for municipalities, addressing more specifically only service's quality standards (Q.4), a criteria followed by all state capitals that had regulated the apps by that time.

Even though Federal Law No. 13.640/2018 does have rules that interfere on prices (Q.3) and does not address provisions for enabling the measurement of impacts on urban infrastructure (Q.6), all 10 state capitals' regulations addressed these points as well.

Considering that fixing taxes and interfering in price calculation may result in undesired consequences for markets, and DEE-CADE's position that apps are presenting a satisfactory mechanism of self-regulation (so that prices could be determined, for example, with reference to changes in supply and demand), state capitals' regulations did not fully match the criteria addressed by the Studies. Finally, the city of Palmas/TO also had a provision that could result in a restriction of maximum limits for license issuance.

The regulatory scenario, therefore, did not match the exact criteria and concerns highlighted by the Department of Economic Studies of the Brazilian antitrust authority. However, in an almost one-year-period, a sensible movement in that direction could be noticed, given: (i) the issuance of a Federal Law that does not prohibit ridesharing apps, as one of the bills previously did; (ii) the reduction in the number of capitals that prohibited ridesharing apps, from 10 to 8; and (iii) all capitals with regulation had provisions regarding service's quality standards and measurement of impacts on urban infrastructure by 2018.

Although the research has identified that municipal regulations were not fully compliant with DEE-CADE's Studies by the time the federal legislation was issued, it should be noted that the Studies had great relevance on the discussions in the National Congress, influencing the edition of a regulation sensitive to competition concerns. In addition, DEE-CADE's Studies have been considered essential to substantiate important judicial decisions, such as the recent ruling by the Federal Supreme Court on the claim of non-compliance with a fundamental precept (ADPF) No. 449, on May 8, 2019, which ruled that the Fortaleza Municipal Law No. 10.553/2016, that prohibited the use of apps, was unconstitutional.

Future research may focus on pending related topics, such as transparency to consumers about variations on dynamic prices, as well as the protection and restriction of the use of passengers' personal data, among many others.

It is also important bear in mind that ridesharing apps' market dynamics is still changing, so that regulatory needs may be in constant change as well. It is necessary that organizations and researchers continue to develop studies on this market, making it possible to establish a constant and coherent agenda between antitrust and regulatory authorities.

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Comparative analysis between DEE-CADE's Studies, Federal Law No. 13.640/2018 and Brazilian capitals' regulations, through answers (Q.1) to (Q.6)

Capital/State	Country Region	Regulation	Publication Date	1. Regulation?	2. Prohibits apps?	3. Interferes in prices?	4. Quality standards?	5. License issuance?	6. Urban infrastructure impacts?
			Federal						
N/A	N/A	Federal Law No. 13.640, March 26, 2018	3.27.2018	N/A	No	No	Yes	No	No
			Municipa	1					
Aracajú/SE	Northeast	Law Decree No. 4.738, December 28, 2015	1.6.2016	Yes	Yes	N/A	N/A	N/A	N/A
Belém/PA	North	Law No. 9.233, December 6, 2016	12.6.2016	Yes	Yes	N/A	N/A	N/A	N/A
Belo Horizonte/MG	Southeast	Law Decree No. 16.832, January 23, 2018	1.24.2018	Yes	No	Yes	Yes	No	Yes
Boa Vista/RR	North			No	N/A	N/A	N/A	N/A	N/A
Brasília/DF	Midwest	Law No. 5.691, August 2, 2016, Law Decree No. 38.258, June 7, 2017	8.3.2016 and 6.8.2017	Yes	No	Yes	Yes	No	Yes
Campo Grande/MS	Midwest	Law Decree No. 13.157, May 16, 2017	2.24.2016	Yes	No	Yes	Yes	No	Yes
Cuiabá/MT	Midwest			No	N/A	N/A	N/A	N/A	N/A
Curitiba/PR	South	Law Decree No. 1.302, July 18, 2017	7.19.2017	Yes	No	Yes	Yes	No	Yes
Florianópolis/SC	South			No	N/A	N/A	N/A	N/A	N/A
Fortaleza/CE	Northeast	Law No. 10.553, December 23, 2016	12.23.2016	Yes	Yes	N/A	N/A	N/A	N/A
Goiânia/GO	Midwest	Law Decree No. 2.890, October 6, 2017	10.6.2017	Yes	No	Yes	Yes	No	Yes
João Pessoa/PB	Northeast			No	N/A	N/A	N/A	N/A	N/A
Macapá/AP	North			No	N/A	N/A	N/A	N/A	N/A
Maceió/AL	Northeast	Law No. 6.683, August 9, 2017	8.10.2017	Yes	No	Yes	Yes	No	Yes
Manaus/AM	North			No	N/A	N/A	N/A	N/A	N/A
Natal/RN	Northeast			No	N/A	N/A	N/A	N/A	N/A
Palmas/TO	North	Law No. 2.330, July 13, 2017, Law Decree No. 1.428, July 31, 2017, Resolution No 5, September 20, 2017	7.13.2017, 7.31.2017 and 9.20.2017	Yes	No	Yes	Yes	Yes	Yes
Porto Alegre/RS	South	Law No. 12.162, December 9, 2016, Law Decree No. 19.700, March 13, 2017	12.9.2016 and 3.13.2017	Yes	No	Yes	Yes	No	Yes
Porto Velho/RO	North			No	N/A	N/A	N/A	N/A	N/A
Recife/PE	Northeast	Law No. 18.176, October 28, 2015, Law Decree No. 29.558, April 4, 2016	10.29.2015 and 4.5.2016	Yes	Indirectly	N/A	N/A	N/A	N/A
Rio Branco/AC	North	•		No	N/A	N/A	N/A	N/A	N/A
Rio de Janeiro/RJ	Southeast	Law No. 6.106, November 25, 2016	11.28.2016	Yes	Yes	N/A	N/A	N/A	N/A
Salvador/BA	Northeast	Law No. 9.066, June 1, 2016	6.2.2016	Yes	Yes	No	No	No	No
São Luís/MA	Northeast	Law No. 429, November 23, 2016	4.28.2017	Yes	Yes	N/A	N/A	N/A	N/A
São Paulo/SP	Southeast	Law Decree No. 56.981, May 10, 2016	5.11.2016	Yes	No	Yes	Yes	No	Yes
Teresina/PI	Northeast	Law No. 4.942, September 2, 2016	9.2.2016	Yes	Yes	N/A	N/A	N/A	N/A
Vitória/ES	Southeast	Law Decree No. 16.770, July 28, 2016, Law Decree No. 16.785, August 18, 2016, Order	8.1.2016, 8.25.2016,	Yes	No	Yes	Yes	No	Yes

No 16, August 26, 2016, Order No 25, October 12, 2016	8.29.2016 and 11.4.2016			
October 12, 2010	11.4.2010			

N/A – Not applicable