

# Numerical aspects of business court specialization: a brazilian case study

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## ABSTRACT

*Jurisdiction specialization is a topic of interest in the administration the justice system. Pros and cons have been vastly discussed, but few papers discuss the practical details connected to the application of this policy. In this study, we discuss the creation of business courts in the County of São Paulo Brazil, and introduce innovating data analysis methodologies for solving practical problems. In São Paulo, new courts, specialized or not, must follow two main criteria. New courts must have a minimum number of lawsuits per year and must have some estimate of the future work load. In the performed analyses, we found evidence that a business lawsuit requires almost twice the amount of effort of a common lawsuit. By correcting the volume of lawsuits, based on a matter-treatment model, we arrived at the conclusion that two business courts can handle the existing demand adequately. Also, we were able to develop a robust methodology to verify if and how business courts should be created.*

**Keywords:** *jurimetrics, court specialization, efficiency measurement, business law*

**JEL codes:** G29, G32

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## 1. INTRODUCTION

Jurisdiction specialization is a topic of interest in the administration the justice system. Pros and cons have been vastly discussed, but few papers discuss the practical details connected to the application of this policy.

In this study, we discuss the creation of business courts in the County of São Paulo Brazil, and introduce innovating data analysis methodologies for solving three practical problems. In São Paulo, new courts, specialized or not, must follow two main criteria. The annual number of civil lawsuits must be larger than 1800 and the court administration must estimate the new work load on old courts and specialized courts. Surprisingly, the court administration was unable to check if the criteria would be followed, because the data available were not organized in a suitable way. It was hard to verify how many business lawsuits existed because there court database didn't had a good lawsuit type classification and the work load analysis would demand a data analysis that the court was unable to do.

We provide solutions for the practical problems faced by the court administration. The first solution is linking norms to establish business law purviews with matters from the Brazilian National Council of Justice's Unified Table of Lawsuits Types, lawsuit classification scheme adopted by the court. The second is treating failures in the classification of the lawsuit types in the analyzed database with a statistical methodology. The third is measuring and comparing metrics of the efforts demanded of the magistrates in common and business lawsuits, in order to estimate the work load on business courts.

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## 1.1 SCOPE OF THE STUDY

The general purpose of this study is to provide quantitative input to analyze the theme of specializing business courts. Due to the existence of criteria for the creation of courts of law, which will be explained further on, two activities will be scrutinized a little closer throughout this study, to wit:

- ☐ Estimate the volume of business lawsuits dispatched per year in the 45 civil courts of the Central Forum;
- ☐ Propose a form of measuring the effort demanded of a judge in a lawsuit and compare the average effort required by business lawsuits with the average effort required by common lawsuits.

## 1.2 CRITERIA FOR CREATING COURTS

Ruling No. 82/2011 of the São Paulo Court of Law (TJSP) establishes in article 4 that the creation of new units or the specialization of existing courts shall meet the following criteria:

1. The analysis shall preferably take into account dispatched matters, and consider the characteristics of the court (nature of jurisdiction, complexity of the dispatches, classification, etc.);
2. The distance of headquarters and local population for the creation of district or regional courts. Distance shall be indicated in kilometers, according to the habitual access routes;
3. The service load per judge in old courts and in the new courts resulting from the installation, shall be understood as the minimum number to trigger the creation of a new court, 1,800 new lawsuits a year in the civil, family and tax courts, except for writs and tax enforcement; 600 indictments a year in the criminal courts; and the proportion of these amounts in the cumulative courts, according to the representability of each one. The load of work in the Special Civil and Criminal Courts shall be examined case by case, in compliance with the specification of the jurisdiction;
4. There shall preferably be no reassignment of matters, even in the case of specialized courts, in which hypothesis, the jurisdiction of the courts regarding the matters that have already been dispatched will be extended, in compliance of Ruling CG-442/91 (our emphasis)

This study will focus mainly on the third item. This choice is justified by the importance of the issue and the possibility of gathering quantitative data based on Court databases.

## 1.3 DATABASE

The population studied is the total amount of lawsuits dispatched between 01/01/2013 and 12/31/2015 in 44 Civil Courts and in the 2 courts specializing in bankruptcy and legal recuperation of the Central Civil Forum in the County of São Paulo.

The following information was supplied by the São Paulo Court of Law Department of Information Technology:

- ☐ Lawsuit number (docket number)
- ☐ Plaintiff
- ☐ Defendant
- ☐ Court
- ☐ Subject, in compliance with the categories described in the unified table of subjects of the National Justice Council.

- ☐ Class, in compliance with the categories described in the unified table of subjects of the National Justice Council.
- ☐ Date dispatched
- ☐ List of moves, containing
  - Date moved
  - Title of move, remotely based on the categories described in the unified table of subjects of the National Justice Council.

## 2. METHODS

The creation of a clear and repeatable criterion for classifying business lawsuits is important, both for the purpose of statistics as well as for measuring the effort required. To execute this task, we shall begin to build a list of legal subjects related to business matters, using as our basis the unified table of subjects of the National Justice Council (Res. 46), and the purview of the Specialized Commercial Law Chambers, second degree specialization already present in TJSP.

According to TJSP Resolution 623/2013, matters under the jurisdiction of the Specialized Commercial Law Chambers correspond to the first four items on the list below. However, following the TJSP inspector general's orientation, we have included two extra topics on our list of subjects.

1. Resolution 623/2013
  1. Articles 966 to 1195 of Civil Code Book II (Law 10.406/02).
  2. Stock Corporation Law (Law 9.604/76).
  3. Industrial Property Law (Law 9.279/96).
  4. Franchise Law (Law 8.955/94).
2. Additional Topics
  1. Arbitration proceedings.
  2. Articles 710 to 721 of Civil Code Book II (Law 10.406/02).

After filtering the subjects in the National Justice Council subject table associated with these rulings, we obtained the list of subjects described in Table 6.1.

If the adopted procedure consisted only in building this list, it would be prone to registration errors, since certain lawsuits were classified under more generic subjects than those specified in Table 6.1. Therefore, the number of corporate lawsuits obtained in such a manner would be an underestimate of the real amount of corporate lawsuits, if one considers there is a certain amount incorrectly filed. We call the unaccounted-for number of business lawsuits *cifra oculta*.

One way of circumventing this problem is to decide which lawsuits with generic subjects are actually business-related. In our application, this was done by estimating the probability of a generic subject being a corporate issue. For this figure, we use the portion of the database that has been correctly classified and calculate the proportion of corporate lawsuits for each subject. The *cifra oculta* is estimated by adding the obtained probabilities.

### 2.1 MEASURING JUDGE'S EFFORT IN EACH LAWSUIT

Once a criterion to identify corporate lawsuits and estimate the *cifra oculta* has been defined, the next challenge is to quantitatively measure the amount of effort required for a judge to treat said business lawsuits, as compared to common proceedings. This rate is useful, since it allows the workload under the two systems to be compared.

Measuring demanded effort is linked to the issue of how complex the proceedings are, a topic of research with multiple investigative angles. So far, there is no consensus on which methodologies are more adequate in calculations of such a nature, we provide a few suggestions: (i) evaluation time spent, (ii) the number of moves, (iii) the amount of appeals, (iv) involved parties and (v) monetary values. These suggestions are consolidated in the procedural viscosity concept.

Procedural viscosity can be defined as the set of structural characteristics a lawsuit contains that can affect its speed. If we use the analogy of fluids, if one were to set aside two cups, one filled with honey and the other with water, and turn them upside down simultaneously, the water will fall faster than the honey. The greater speed of the water is not due to the lack of resistance caused by an external object, but because of differences in the intimate structure of each substance: honey is more viscous and advances much more slowly than water, which is more fluid.

Based on this analogy, one can say that certain lawsuits are more viscous than others. Lawsuits comprising complex issues, multiple parties or the need to provide elaborate technical proof have a more complex inner structure and tend to advance much more slowly than simple cases, characterized by two parties and that require only documentary evidence. This internal complexity is what we call procedural viscosity, and measuring it is fundamental to manage the workload and goals of Justice Department employees, such as, for example, the creation of rules to balance the assignment of resources to reserved chambers.

In the following analyses, said viscosity shall not be used in the exact way that it has been defined, but shall be the starting part for the quantification of the workload in corporate and common lawsuits. Just like the viscosity of a fluid is associated with the speed with which it drains in a certain environment, in a legal context, it is associated with the time of lawsuit proceedings.

To refine this concept, we have separated viscosity into two components: i) the time associated with official moves and ii) the time associated with legal ruling and other magistrate interventions. This separation is justified based on the assumption that the time spent by the magistrates on a given class of lawsuits is more informative regarding its factual and legal difficulty than the total time of proceedings, which is subject to all kinds of external interference.

Following this line of reasoning and considering the objective of this study, the creation of specialized courts, we are going to define procedural viscosity as the time spent by the magistrates to make their decisions. In more precise terms, consider  $T_i$ ,  $i = 1, \dots, n$  the date of the available moves in the e-SAJ system of a given lawsuit, and  $n$  the number of moves. Likewise, consider a variable  $D_i$ ,  $i = 1, \dots, n$  which assumes a value of 1 if the  $i$ -th move is a decision, a dispatch or a sentence and 0 if otherwise. So, viscosity is defined as

$$V = \sum D_i (T_i - T_{i-1})$$

Which can be simplified when we consider only the terms in which  $D_i > 0$ :

$$V = \sum T_{decision} - T_{last\ move}$$

One obstacle for applying this methodology lies in the difficulty in deciding, in a given lawsuit, if the judge will spend more time making his or her decision or if all their interventions have been concluded. To solve this problem, the time taken was studied based on Survival Analysis Techniques (MILLER JR, 2011), an area of statistics that studies data with incomplete information.

A common example of this kind of analysis is the study of equipment failure times (e.g. light bulbs). Since many times it is invariable to wait for all the samples in a study to fail, at the time of analysis we have certain devices that break down (called failures) and others that will fail in the future (called censored data to the right). This analysis is important, since ignoring all the devices that have yet to fail might lead to an underestimate of failure times. Censures provide partial information about the longest periods that can occur if there were more time for observation.

In this application, we are studying the total time associated with decisions, dispatches or sentences until the last event of this time takes place. We consider the length of a lawsuit censored if there have been no moves associated with the conclusion of said lawsuit, such as posting, filing or sentencing

### 3. RESULTS

This section is dedicated to the calculation of the actual number of lawsuits related with corporate matters in the civil courts in the County of São Paulo. This quantity is defined as the procedural volume corrected by a conversion factor that associates the specific workload of corporate lawsuits with the workload associated with common lawsuits. The purpose of this correction is to calculate how many common civil lawsuits create the same amount of work as a corporate lawsuit, considering the average magistrate as the reference.

The calculation for this quantity contains three components. In subsection 3.1, we obtain an estimate for the absolute number of corporate lawsuits dispatched by year in the Central Civil Forum, represented by  $N$ , following the *cifra oculta* quantification methodology described in the previous section. In subsection 3.2, we calculate a conversion rate of common civil lawsuits into corporate procedures, represented by  $TE,C$ , which should be interpreted as the average amount of common civil lawsuits that produce the same amount of work for a magistrate as an average corporate lawsuit. Finally, in subsection 3.3, we estimate the proportion of corporate lawsuits in the County of São Paulo handled in the Central Civil Forum (represented by the letter  $p$ ), allowing the total number of corporate lawsuits in the County of São Paulo to be calculated.

Thus, as described above, the *actual number of lawsuits*, represented by  $Ne$ , is reached by

$$Ne = (N \times TE,C)/p$$

### 3.1 VOLUME OF LAWSUITS

The total number  $N$  of business lawsuits dispatched every year can be represented by the sum of two figures: the number  $N_0$  do lawsuits correctly classified and  $C$ , the *cifra oculta* of business lawsuits with generic classifications. The expression for this is

$$N = N_0 + C.$$

If one filters only the lawsuits correctly classified, we obtain  $N_0 = 675$  corporate lawsuits per year. To estimate  $C$ , the first step adopted was to establish a variation principle for this quantity.

Based on the assumption that all lawsuits with generic subjects are business-related, we achieve a mean of 26,801 a year. This quantity is considered extremely high, since it alone would justify the creation of at least 14 new courts, considering the numerical criterion in Ruling No. 82/2011. The actual number of business lawsuits dispatched per year is a number between 675 and 26,871, meaning that calculating  $N$  means choosing a value within this range.

The methodology for calculating  $C$  consists in obtaining, for each generic classification, the number of expected corporate lawsuits incorrectly classified. As an example, Table 1 contains the 10 generic classification that may result in corporate lawsuits and the respective expected number of lawsuits. We built the same table for all the generic classifications and  $C$  was calculated based on the sum of the values of the second column, resulting in 287 lawsuits per year.

**Table 1:** Expected number of corporate lawsuits for each generic classification.

Subject:	# Lawsuits	% Corporate	# Corporate
Types of Contracts	13181	1,066%	140
Real Estate Leases	8777	1,119%	98
Obligations	8028	0.997%	80
Delinquent Payments	8033	0.973%	78
Price of Enforcement / Calculation / Updating	4951	1.222%	61
Preliminary Injunctions	3839	1.222%	47
Credit Bond Types	3289	1.197%	39
Building Condominiums	3136	1.097%	34
CONSUMER RIGHTS	2898	1.110%	32
Evidence	2491	1.270%	32

Based on these figures, the conclusion is that the total amount of business lawsuits dispatched a year is achieved by  
$$N = N_0 + C = 961.$$

### 3.2 COMPLEXITY OF LAWSUITS

As described in section 3.2, the proportion between the amount of work generated by corporate and common lawsuits was obtained by comparing the time spent by the magistrates in each situation. Figure 1 illustrates the result of the analysis of this time with the survival curves for each kind of process. Analyzing the curves, one can observe that, for all the quantities of calendar days  $d$ , the proportion of corporate lawsuits that demand more than  $d$  days from the magistrates is larger than the proportion of common civil lawsuits that require the same amount of time.

*Figure SEQ Figure \\* ARABIC 1*

This observation shows that the workload associated with corporate lawsuits is higher than the load associated with common lawsuits. However, to calculate the rate  $TE,C$ , we need a summarizing measurement of the difference between the two curves. A natural summary of the survival curves is the number of days supersede surpassed by exactly half of the observed lawsuits, called total mean time spent on decisions and dispatches. By adopting this criterion, the comparison of the two curves suggests that the value of  $TE,C$  must be equal to 2.09.

### 3.3 REGIONAL COURTS

SEPLAN, the Court of Justice of São Paulo's Planning Department, at the request of the Inspector General, published an analytical report with all the collected data regarding the corporate lawsuits in the County of São Paulo courts. Unlike

this present study, which is limited to the Central Court Forum, this report takes into consideration all the lawsuits distributed to the Regional Courts, and proposes a methodology of counting the lawsuits similar to that presented by the ABJ.

Based on a list of subjects elaborated for the Inspector General, SEPLAN has ascertained that approximately 60% of the corporate lawsuits are handled by the Central Civil Forum. We therefore consider, that for the purposes of this analysis, that  $p = 0.6$ , even if the two reports diverge regarding the choice of the subjects associated with corporate lawsuit matters.

#### 4. CONCLUSIONS

Based on the estimated values, one can conclude that the actual amount of lawsuits distributed per year is

$$Ne = (N \times TE,C)/p = (961 \times 2.09)/0.6 = 3346$$

Considering sole the criterion of 1800 done per year, the actual yearly volume of lawsuits justifies the creation of at least one business court. However, considering that over 1,500 lawsuits are not handled, we conclude that that installation of a single court will certainly overload the work of the new judges. Therefore, we suggest, in an ideal scenario, the installation of two specialized courts. Outside the context of an ideal scenario, the installation of a single court with two judges would be a great step forward, considering the potential gain in productivity.

Finally, we underscore that the installation of the court (s) needs to be bolstered with the needed productivity metrics. The monthly volume of lawsuits distributed among the court (s) will need to be recorded, with an assessment if specialized courts actually reduces the average time of the lawsuits and the rate of decision reformation, and if the volume of lawsuits herein calculated corresponds to the reality.

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