

Understanding Judicial Delay at the Income Tax Appellate Tribunal in India

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Abstract

Most performance statistics using aggregate level data about courts in India show delays. There is limited analysis of the actual duration and trajectories of cases. In this paper, we create a de novo data-set using publicly available data on cases at the Indian Income Tax Appellate Tribunal (ITAT). We apply statistical techniques of hazard models to address questions around case duration at the Income Tax Appellate Tribunal (ITAT). We describe patterns in case life-span, compare these patterns among groups, and build statistical models of the risk of case completion over time. We find differences in the probability of case completion between the ITAT benches in Mumbai and Delhi. We also find that probability of case completion differs by case type. Our results point to the need to study case trajectories to better understand the causes of delays in order to design appropriate policy solutions to improve the performance of courts and tribunals.

Keywords: hazard models; tribunals; India

JEL: K49

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1 Introduction

The rule of law requires effective enforcement of laws. A sound judiciary is key to such enforcement (Dam, 2006). Slow judiciaries that delay enforcement have adverse consequences on structure and efficiency of markets, as well as quality of life of citizens (The World Bank, 2004; Chemin, 2007). Therefore, minimising unnecessary judicial delay could help improve enforcement and enhance the overall rule of law.

Globally, India ranks 66th in the rule of law (World Justice Projects, 2016) and 172nd in enforcing contracts as well as paying taxes (The World Bank, 2016). It is estimated that judicial delays cost India around 1.5% of its GDP annually (Dey, 2016). In this backdrop, it is hardly surprising that tackling judicial delay has increasingly become a top priority for Indian judges and policymakers.

Policy solutions need to be anchored in sound diagnosis of the problem. Analysis should inform us about the extent of judicial delay, the causes of judicial delay, the solutions to judicial delay, and finally the efficacy of the solutions as they get implemented. The literature in India is lacking on these questions. One reason is the paucity of granular datasets that allow for studying the life-span of a case as it travels through court.¹ Research has also not exploited sophisticated statistical methods of analysis.

In this paper, we inform policy discussions on judicial delays in India by showing how standard statistical techniques of hazard models (or survival analysis) could be used to address questions around case duration: How long do cases take to get resolved? How does the probability of case completion vary with case type and city?

Survival analysis allows us to describe patterns in case life-span, compare these patterns among groups, and build statistical models of the risk of case completion over time. This advantage of survival analysis makes it particularly suitable to examine judicial delays. First, a comparison between similar cases might help address questions around why time to resolution may be different in different courts. Second, any careful evaluation of an intervention to reduce delays, requires accurate and precise information on the duration of the case. Third, estimates on case duration, and probability of resolution may help litigants organise their resources more efficiently. All these are possible using survival analysis.

We sourced the case-related data from the website of the Income Tax Appellate Tribunal

¹Technically, courts are different from tribunals in India. However, for the purpose of determining useful statistical tools for analysing judicial delays, courts and tribunals could both be broadly viewed as judicial institutions. Therefore, this paper uses both these terms synonymously.

(ITAT)² for the period January 2013 to March 2016. The date of pronouncements were sourced from Indian Kanoon,³ a free online repository of orders and judgments of courts and tribunals across India. By merging these two data sources, we obtained data on a total of 55,261 unique cases that were listed after January 2013 for the ITATs in Delhi and Mumbai. A large number of these cases, however, pertain to earlier years, and we do not have the exact start date of these cases. For the survival analysis regressions, therefore, we use data on 25,858 cases that pertain to 2013 or after so as to avoid issues of “left censoring” of data. More complex models that deal with such data limitations can be developed in future work.

We find that the ITAT in Mumbai is on average slightly more efficient than in Delhi, especially on matters pertaining to re-opening of the case by tax-officers. On matters of transfer pricing, Delhi performs better. Overall, there is a 85% lower probability of a transfer pricing case being closed relative to an Assessment case. Similarly, case-completion probability is higher for non-firms relative to firms. These findings may have policy implications in terms of allocation of resources across types of cases, and organisation of tribunal benches in different cities.

We contribute to the literature in two ways - first, by demonstrating how data from court websites can be used to create datasets worthy of analysis. Second, by bringing tools of multivariate analysis to the problem of understanding the determinants of delay. To the best of our knowledge, we are the first to use survival analysis to analyse the problem of judicial delay in India.⁴ Our methodology can have applications on judicial institutions anywhere in the world. Our analysis is limited to the extent that we do not have more details of the cases, and hence, can only model the effects of characteristics that we see. However, it sets the stage for further analysis that can at some point move from understanding co-relations between case and court characteristics and delay to *causation*.

The paper proceeds as follows: section 2 presents a short overview of the literature on judicial delays in India. Section 3 describes the setting of the ITAT, while Section 4 describes the data. Section 5 describes the methodology of survival analysis. Results are presented in Section 6. Section 7 concludes by explaining the advantages of survival curves in designing policy strategies for judicial institutions.

²See www.itat.nic.in

³See www.indiankanoon.org

⁴Survival analysis and Cox Proportional Hazard duration model have been used in some studies in the empirical literature on American judicial institutions (Kesan and Ball, 2011; Falkoff, 2012; Choi, Gulati, and Posner, 2013)

2 Literature on judicial delays

The lack of reliable, granular structured datasets for courts and tribunals in India has emerged as a critical challenge to understanding the problem of judicial delays in India. Even the Law Commission has admitted that it could not gather reliable data (Justice A.P. Shah, 2014).

The paucity of granular data has meant that Indian researchers have had to rely on aggregate data reported by state institutions (Justice A.P. Shah, 2014; Hazra and Micevska, 2004; Robinson, 2013), and mostly followed the normative approach to studying judicial delays as proposed by the Malimath Committee (Justice V.S. Malimath, 2003).⁵ This has led to the criticism that existing strategies for legal system reform in India are based on little or no empirical evidence relating to institutions, their performances and the disposal of cases (Krishnaswamy, Sivakumar, and Bail, 2014).

In recent times, researchers have adopted a new approach to data collection, pioneered by organisations such as DAKSH⁶ and Vidhi Centre for Legal Policy.⁷ These organisations have started scraping data from online sources like the official website and cause-lists and building structured datasets which are more reliable. This has allowed researchers to go beyond aggregate data and analyse various underlying trends including the text of orders to better determine the causes of delay.

This has led to some innovative approaches in the study of delays. For instance, Regy and Roy (2017) hand-collected dataset built by manually studying all the orders in 22 cases in the Delhi Debt Recovery Tribunals. They defined delay more precisely to mean delay due to a failed hearing and find that trial failures account for more than half the time taken by the cases. The largest cause of failure in this analysis are requests from the parties for more time to submit documents. Similarly, Khaitan, Seetharam, and Chandrashekhara (2017) study the Delhi High Court and find that trial failures either by counsels or the court result in delayed cases.

There is also an emergence of a literature where the orders of courts are analysed to understand the economic effect of laws. For example, Chatterjee, Shaikh, and Zaveri (2017)

⁵This Committee recommended that cases which are pending for more than two years be treated as arrears.

⁶DAKSH has created India's first public judicial database that enables analysis and discussion regarding the functioning of the courts. With this database, it is possible to sort the pending cases according to case types, duration, court, court hall, and many other parameters. The database has been put together using causelists and information regarding status of cases on court websites. Lack of standardisation of fields, poor quality of data, converting the many case types into meaningful categories are some of the challenges in this process. See, <http://dakshindia.org/>.

⁷See <https://vidhilegalpolicy.in/>.

build and analyse a dataset of orders passed by the National Company Law Tribunal (NCLT) in the insolvency cases under the Insolvency and Bankruptcy Code (IBC). The paper evaluates questions such as who are the initial users of the insolvency process under the IBC, what kind of evidence are they using to support their claims before the NCLT, what is the average time taken by the NCLT to dispose off insolvency cases, what is the outcome of the proceedings and is there variation between the benches.

However, despite the innovations in data collection, and the detailed analysis of individual orders, research so far has used elementary statistical tools to analyse court functioning. For example, even research that has analysed text of individual orders, or used the average duration (in days) of different types of cases, has not taken a more statistical approach to jointly model the determinants of delay, or the distribution of time to case completion. When analysing the causes of delay, it is useful to jointly model the impact of various covariates on the delay, and evaluate the impact of one covariate controlling for other factors that might also impact the outcome. In this paper, we use these advanced statistical techniques to analyse judicial delay in India using a unique dataset that we created for ITAT.

3 The setting: Income Tax Appellate Tribunal

The ITAT is a quasi judicial institution set up in January, 1941. It specializes in dealing with appeals under the direct taxes statutes like Income Tax Act, 1961 (Income Tax Act), Wealth Tax Act, 1957 (Wealth Tax Act), Gift Tax Act, 1958 (Gift Tax Act) and Interest Tax Act, 1974 (Interest Tax Act).⁸ The orders passed by the ITAT are final. An appeal lies to the High Court only if a substantial question of law arises for determination.⁹

The ITAT carries on adjudicatory function similar to that of courts where appeals are filed, arguments are heard in an open court and judgments delivered. They also share similar attributes and suffer from common problems such as inadequate number of members (judges), mounting pendency and bureaucratic process of the registry. However, they are separate from the mainstream judicial bodies with the higher judiciary (Supreme Court and High Courts) not being involved in their day to day operations or staffing decisions.

The ITAT is headquartered in Mumbai. Pursuant to the Standing Order dated September, 16, 1997 (as amended subsequently from time-to-time) under Rule 4(1) of the Income

⁸The current legal basis for ITAT is section 252 of the Income Tax Act, 1961. See, *Income Tax Act, 1961* 1961.

⁹See section 260A, *Income Tax Act, 1961* 1961.

Tax (Appellate Tribunal) Rules, 1963 (ITAT Rules), the ITAT presently has 63 sanctioned benches operating out of 27 locations, divided into 9 zones (*Office Manual, 2008* 2008). The zone-wise details of the benches are presented in the Appendix.

Each bench of the ITAT comprises of both judicial and accountant members. Each bench consists of two members - one judicial and one accountant member.¹⁰ The administrative head of the ITAT is the President. Functions relating to the ITAT's appellate filing procedures, such as record-keeping, scrutiny of appeals, fixing the date of hearings, etc. are handled by the Registrar/ Deputy Registrar/ Assistant Registrar, in accordance with the general or special orders of the President of ITAT.¹¹ The Registrar at the headquarters and the Deputy Registrars at zonal headquarters provide assistance respectively to the President, the Senior Vice-President and the Vice-Presidents in discharging their functions. The Registrar also exercises supervisory jurisdiction over the Deputy Registrars and the Assistant Registrars of all the Benches.¹²

On January, 24, 2016, ITAT celebrated the completion of its 75th year. Speaking on the occasion, the President of India highlighted the need for speedy disposal of cases in ITAT to help improve India's investment potential. Speaking to the ITAT members he mentioned¹³

“The tax disputes resolution system is an integral component of the eco-system for promoting investments and attracting business. As India looks forward to be an attractive investment destination, you all have to play a very important role in this eco-system. As per World Bank Group 2016 Report, India is ranked at 130 in the Ease of Doing Business. This status must be improved. Through speedy justice, consistent orders, fair approach and business oriented litigation management system, you can contribute to the growth story of India, which is unfolding itself.”

In this backdrop, this paper tries to provide a better statistical methodology for policy-makers and ITAT members to better understand the performance of ITAT at a granular

¹⁰To be eligible for the position of a judicial member a person must have held a judicial office in the territory of India for at least 10 years, or been a member of the Central Legal Service and has held a post in Grade 1 of that Service or any equivalent or higher post for at least three years or who has been an advocate for at least ten years. To be eligible for the position of an accountant member a person must have for at least 10 years been in the practice of accountancy as a chartered accountant under the Chartered Accountants Act, 1949 (38 of 1949), or as a registered accountant under any law formerly in force or partly as a registered accountant and partly as a chartered accountant, or has been a member of the Indian Income Tax Service, Group A, and has held the post of Commissioner of Income Tax or any equivalent or higher post for at least three years. See section 252, *Income Tax Act, 1961* 1961.

¹¹See, *Income-Tax (Appellate Tribunal) Rules, 1963* 1963, Rule 4A.

¹²See, *Office Manual, 2008* 2008.

¹³Mukherjee (2016)

level and design policy solutions to help enhance the performance of ITAT.

4 Data

The case-related data has been sourced from the website of the ITAT¹⁴ for the period January 2013 to March 2016. Thus, we do not see cases disposed of prior to 2013 or hearings prior to 2013 of any pending case.

The website puts up the causelist on each date which includes the details about the case number, name of the party, assessment year, date of hearing and the section number under which the appeal was filed. While the causelists on the premises of the ITATs have more information on stage, authorised representative and bench composition, we do not see these details on the online causelists. We also do not see any data on socio-economic-legal profile of non-corporate taxpayers. We also cannot distinguish between a listing and a hearing. While several cases may get listed every day, it is likely that very few of them are actually heard.

The date of pronouncements has been sourced from Indian Kanoon,¹⁵ a free, online repository of orders and judgments of courts and tribunals across India. The two datasets were matched using the ‘case number’ field using textual parsing. At the end of the mapping process, about 2% of the judgments had multiple ITA numbers - such ITAs were excluded from any further analysis. This combined dataset gave us comprehensive information about each listing of a case, and for those cases that got disposed, the disposal date.

We have data on case listings between 1 January 2013 and 6 April 2016 across 18 ITATs in the country. Each ITAT consists of “benches” where cases are heard. We restrict our analysis to the ITATs in Mumbai and Delhi which constitute 51% of the total listings across all ITATs. This leaves us with a total of 244,144 listing between the two cities. Delhi has 127,051 listings in the period, while Mumbai has 117,093. Of these listings, we find that 5% were pronounced in the time period of the study.

We next, present the data in each of the two cities. We calculate the average “daily” listings and disposals in both the cities in Table 1. Delhi and Mumbai have 14 benches each. Delhi lists more cases, an average of 12 cases daily per bench than Mumbai which lists an average of 10 cases daily per bench. There is also a large difference in the daily disposal rate between the two cities - on an average, Mumbai sees 10 cases disposed

¹⁴See: www.itat.nic.in

¹⁵See www.indiankanoon.org

everyday, while Delhi sees 4 cases disposed everyday. The differences in listing as well as disposal are statistically significant at the 1% level.

Table 1 City-wise listings and disposals

The table shows the average daily listings and disposals in both cities.

City	Average daily		Number Benches
	listings	disposals	
Mumbai	135.06	10.36	14
Delhi	165.65***	4.27***	14

*** significant at the 1% level

The analysis of this table suggests that Mumbai disposes more cases than Delhi, and hence, is more efficient than Delhi. However, univariate analysis such as this can mask the differences in the cases that show up in front of the tribunals in the two cities.

Table 2 shows the top 5 types of cases (based on section numbers) that are heard across ITATs in both cities. These are as follows:

1. *Assessment after draft assessment order*: These cases involve assessment order in cases where transfer pricing adjustment is made or in cases involving foreign companies. The assessing officer finalises a draft order which can then be appealed against to the Dispute Resolution Panel (DRP). The DRP disposes of the appeal by confirming or altering the draft assessment order. These orders are passed under section 143(3) read with Section 144C and are appealable to ITAT under section 253 of the *Income Tax Act, 1961*.
2. *Assessment on searched person*: These cases involve assessment done on a person consequent to search carried out, which results in undisclosed income coming to light. These orders are passed under section 143(3) read with sections 153A & 153C and are appealable to ITAT under section 253 of the *Income Tax Act, 1961*.
3. *Re-opening by tax officer*: These cases involve a tax officer re-opening an already concluded or time-barred assessment on coming to know of new materials to show that some income had not been taxed. These orders are passed under section 143(3) read with sections 147 & 148 and are appealable to ITAT under section 253 of the *Income Tax Act, 1961*.
4. *Penalty for non-compliance*: These cases involve orders under section 271 imposing penalty for failure to comply with information request, furnishing returns, concealing income, furnishing inaccurate particulars etc. These orders are appealable to ITAT under section 253 of the *Income Tax Act, 1961*.

5. *Assessment*: These cases involve orders of assessment passed under section 143(3) by a tax officer in the normal course. These orders are appealable to ITAT under section 253 of the *Income Tax Act, 1961*.

We find that the maximum number of cases pertain to IT-Assessment. These are Assessment orders passed in regular course. Cases where the tax officer revisited a matter that was previously concluded constituted 8% of the cases in Delhi, and 7% of cases in Mumbai. Cases where penalty was levied for not producing or filing requisite information were 6.2% in Delhi while the number was higher at 8.7% in Mumbai, whereas cases where tax demanded consequent to search by tax officers was higher in Delhi 8.34%. Thus, we find that the case composition in the two cities varies, and this might explain the differences in average disposal rate seen earlier.

Table 2 Type of cases at ITATs

The shows the top 5 types of cases (as % of all cases) that are listed across ITATs in both cities. The case categorisation is based on section numbers.

Case	Delhi (%)	Mumbai (%)
IT-Assessment after draft assessment order	7.46	4.19
IT-Assessment on searched person	8.34	5.38
IT-Re-opening by tax officer	7.87	6.71
IT-Penalty for non-compliance	6.22	8.76
IT-Assessment	46.76	54.77

5 Methodology: Survival analysis

Case completion is a binary event – either a case has been completed, or is ongoing at the time of analysis. There can be several factors that affect the probability of case completion. For example, it is possible that cases pertaining to a particular section have a higher probability of completion than cases pertaining to other sections. Cases relating to individuals might get resolved faster than cases relating to firms.

These are typically modeled using generalized linear models (GLM) such as the “probit” or the “logit” model. In these models, the dependent variable would be whether the case was completed or not, and the explanatory variables are the factors that might affect the probability of case completion. The analysis provides us with coefficients which show how a particular explanatory variable is correlated with case completion.

Our interest, however, is not just in the completion of the case, but the time taken for the case to get completed (or closed), as well as the probability of case completion at a point in time. When the variable of interest is time until the occurrence of the event

(here, case closure), ‘survival models’ are the appropriate tool for analysis (Nicholas M. Kiefer, 1988).

In such models, subjects are usually followed over a specified time period and the focus is on the time at which the event of interest occurs. This is most common in the literature on clinical trials where the effect of an intervention is assessed by measuring the number of subjects that survived after an intervention over a period of time. For example, researchers may be interested in understanding the time from completion of chemotherapy to the re-occurrence of cancer. In criminology, the outcome of interest could be recidivism. In finance, the occurrence of bankruptcy, or exit out of unemployment is an example of an event of interest.¹⁶

In any analysis of such kind, there will always be observations for which the event has not occurred. This does not mean that the event can never occur, just that it has not occurred within the period of the study. This is known as “censoring of observations”. In our example, ongoing cases will get closed at some point in the future, even if they haven’t closed when our data ends. These observations are called right censored.

Thus, there are three main characteristics that we must contend with:

1. Our dependent variable is the time until the occurrence of case completion;
2. Several of our observations are right censored, that is, for some entities the event of interest (case closure) has not occurred at the time of data analysis, and;
3. There are explanatory variables which may have a differential effect on the waiting time.

Let T represent the time to completion of a case. The event, that is case completion, is typically referred to as “death”, and the waiting time as “survival time”. The origin of T i.e. survival time, is the time at which the case first got listed.

We assume that T is a random variable with a cumulative distribution function $F(t) = Pr(T \leq t)$, and probability density function $f(t) = dF(t)/dt$. In our dataset, T can be censored where the study period ends before we observe whether the case got closed. What we observe is $T = \min(T, C)$ where C is an indication of whether the observation is censored.

$S(t)$ is the survival function, $P(T > t) = 1 - F(t)$. This is the probability of being alive just before duration t , or more generally, the probability that the event of interest (case closure) has not occurred by duration t .

¹⁶See, Machin and Manning, 1999; Bauer and Agarwal, 2014.

We are interested in *probability of completion of the case, conditional on it not having been completed until that time*. This is also known as the instantaneous rate of occurrence of the event. It is defined as:

$$h(t) = \lim_{h \rightarrow 0} \frac{P(t \leq T < t + h | T \geq t)}{h}$$

The numerator of this expression is the conditional probability that the event will occur in the interval $[t, t + h)$ given that it has not occurred before, and the denominator is the width of the interval. This can be further written as

$$h(t) = \frac{f(t)}{S(t)}$$

The hazard function thus shows us that the rate of occurrence of the event (case closure) at duration t equals the density of events at t , divided by the probability of surviving to that duration without experiencing the event.

5.1 Kaplan-Meier statistics

How do we depict the survival curve? A non-parametric depiction of survival curves come from the Kaplan Meier statistic.

A survival probability is calculated for each interval as follows: number of observations that survived (that is did not face the event), divided by the number of observations who were at the risk of facing the event.¹⁷

In our case, this will be the number of cases that did not get closed divided by the number of cases that could have been closed. The Kaplan Meier plots, thus, depict the estimated probability of survival at each point in time, or the probability of the case not getting completed at each point in time.

5.2 Cox-proportional hazard model

Kaplan-Meier statistics are useful to depict the survival probabilities. But they are not useful to model the determinants of time to an event. That is, there might be a number of explanatory variables, or covariates that may affect survival time. In fact, our main

¹⁷See, Rich et al., 2010.

interest is the investigation of the influence of the covariates on the probability of case completion.

The model most frequently used for such analysis is the Cox-proportional hazard model.¹⁸ In these models, the hazard at time t for an individual with covariates x (not including a constant) is assumed to be:

$$h_i(t|x_i) = h_0(t)exp(\beta_k x_{ik})$$

In these models, $h_0(t)$ is called the “baseline hazard”. This describes the risk of occurrence of an event for individuals with $x_i = 0$. Any covariate x_i affects the relative (to the baseline) risk. The baseline hazard, $h_0(t)$, is not specified and can take any form. This model assumes proportional hazards i.e. there is an underlying hazard rate over time, and differences in the covariates simply lead to differences in the relative hazard rate at a point in time.

Taking logs, we find that the proportional hazards model is a simple additive model for the log of the hazard, with

$$\log h_i(t|x_i) = \alpha_0(t) + x_{ik}\beta_k$$

where, $\alpha_0(t) = \log h_0(t)$ is the log of the baseline hazard. We assume that the effect of the covariates x is the same at all times or ages t . That is the effect of a unit increase in a covariate is multiplicative with respect to the hazard rate. In other words, the effect of a unit change in a covariate is to produce a constant proportional change in the hazard rate. The model is estimated using maximum likelihood technique.

6 Results

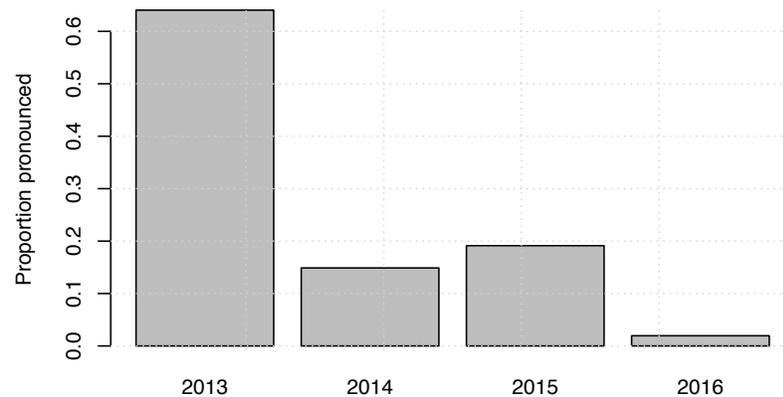
We have information on a total of 244,144 listings, for 55,261 unique cases filed between 1 January 2013 and 14 March 2016. However, a large proportion of these, about 55%, pertain to cases that “began” before 2013. That is, they were first listed before 2013. Since we do not have the date on which they were first listed, we drop all such observations. In the survival methodology literature, these are known as “left-censored” observations. This leaves us with a total of 23,858 cases that pertain to 2013 or after.

¹⁸See, Cox, 1972.

Of all the 23,858 cases, 4,492 or 17% of the cases were closed in the time period of our study. This seems to be a low completion rate over a three year period. For the cases that got completed, the average time to completion was 8 months. The maximum time to completion (for the set of completed cases) was 3.3 years.

Figure 1 shows the distribution of the cases that have been resolved in less than six months, between six months and one year, between one year and two years, and greater than two years. The analysis suggests that a large proportion of the cases were solved within the first six months. However, such an inference would be misleading. This is because the figure only pertains to cases that were completed. It completely misses the cases that *did not* get resolved.

Figure 1 Time taken to resolve cases



Standard summary statistics which show the proportion of cases that got resolved within a period of time (say six months, or a year) will miss the variation in time to resolution between the years. We cannot assess variation in completion of cases (for example, by either location, or type of case) based on aggregate statistics. Often, the various determinants will affect case completion jointly. This is missed in univariate statistics.

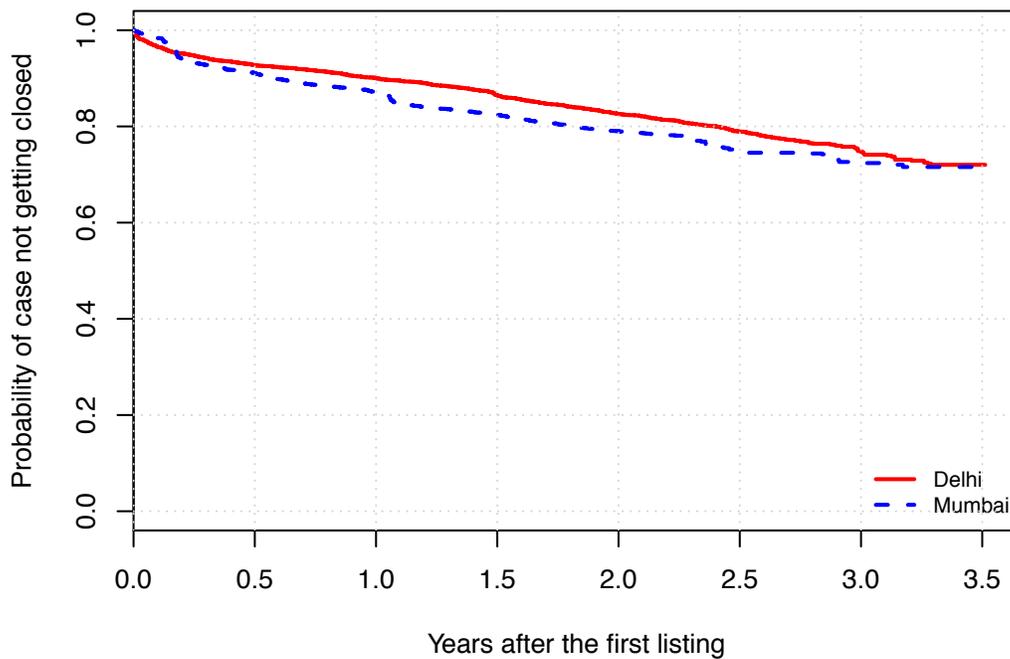
6.1 The Kaplan Meier (KM) statistic

We are interested in understanding the probability of case being resolved within a defined period of time. We first plot the Kaplan-Meier (KM) statistic described in Section 5.1 to see the variation in completion of cases across cities and across case types.

Figure 2 shows the probability of case not being resolved by city. Mumbai has a slightly higher case completion efficiency - at the end of 1 year, the probability of a case getting closed is 20% relative to about 10% in Delhi. Similarly, at the end of 2 years, the probability of a case getting closed in Mumbai is about 25%, relative to 15% in Delhi. The log-rank statistic rejects the null of the two groups having the same survival distribution. This finding is interesting since both Mumbai and Delhi benches of the ITAT had the same number of tribunal members.

Although this finding itself may not have policy implications, recent literature has focused on the need to reform court processes instead of increasing the number of judges alone (Datta and Shah, 2015; Kumar and Datta, 2016; Damle and Regy, 2017).

Figure 2 Time taken to complete cases by city



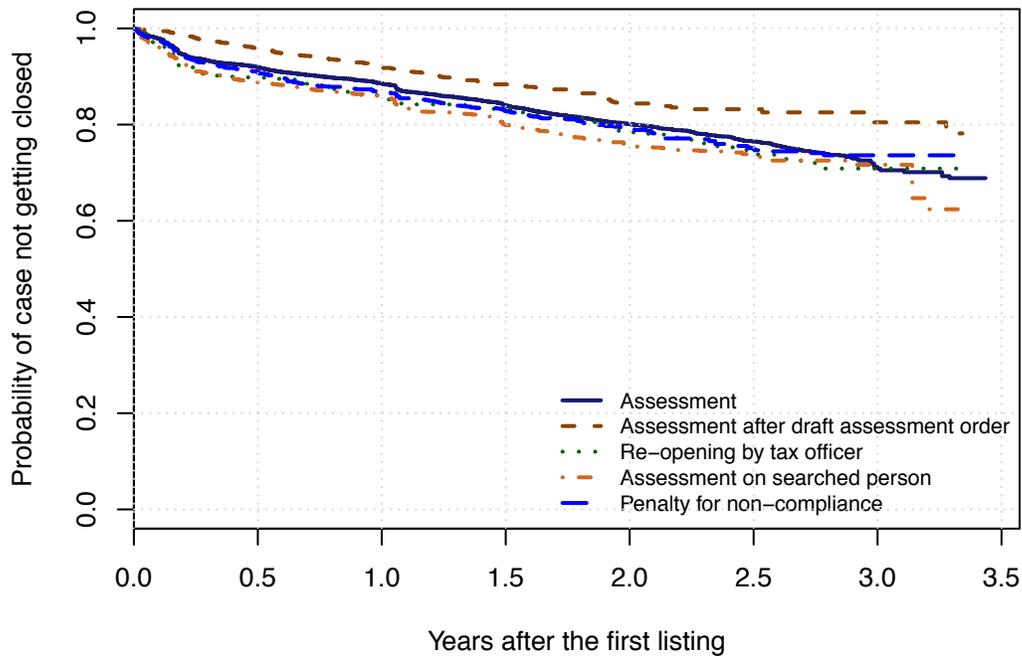
One of the factors that is likely to affect the lifespan of cases is the type of cases heard. Figure 3 shows the probability of case not being resolved by the type of case. We see variation in the time taken to resolve a case. The cases that pertain to “assessment on searched person”, get resolved fastest. The cases that pertain to “assessment after draft assessment order” take longer.¹⁹

The “assessment after draft assessment order” cases pertain to transfer pricing matters and assessment of foreign companies. These cases require the bench members to go into

¹⁹The log-rank statistic rejects the null of the cases having the same survival distribution.

considerable detail and voluminous evidence. This also requires the lawyers (for the taxpayer as well as the tax department) to set apart considerable time. This is unlike other types of cases before ITAT which are based only on legal arguments and therefore, require lesser time of judges, registry officials and lawyers. However, whether this is indeed the actual reason for the difference in performance between “Assessment after draft assessment order” and “Re-opening by tax officer” requires further research.

Figure 3 Time taken to complete cases by Section



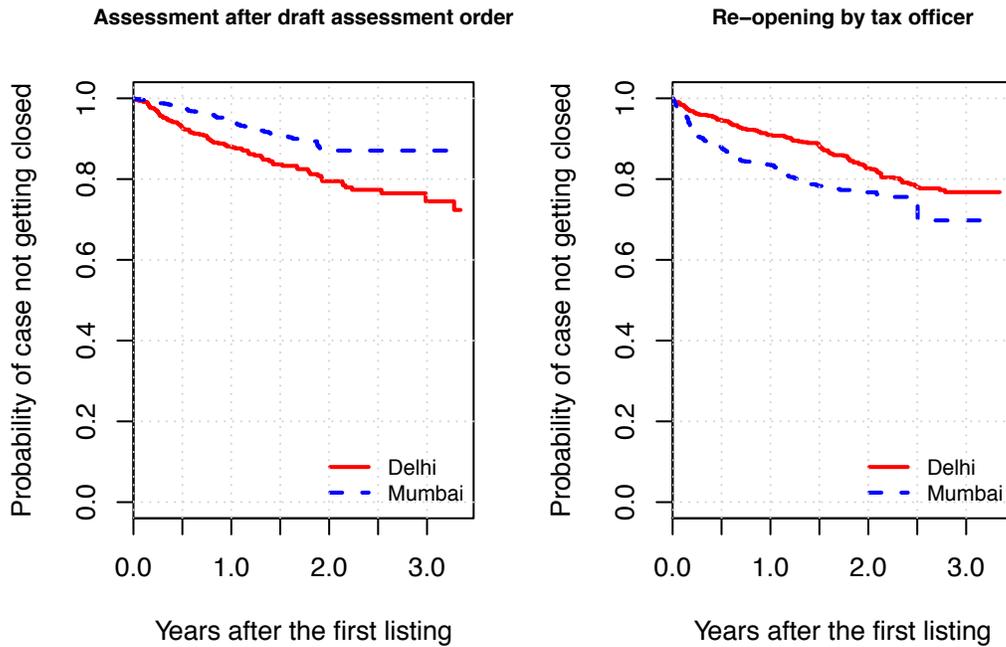
The analysis so far suggests that case closure is a function of the type of case, and also the court in which the case is lodged. It builds a case for understanding why there exist such differences. It is possible that some cases are more complex and therefore require more time. Such an analysis is presented in Figure 4.

The left hand panel of the graph shows the KM curves for the “Assessment after draft assessment order” cases, while the right hand panel shows the curves for “Re-opening by tax officer” cases. In the case of the former, we see that Delhi is much better at case closure than Mumbai. At the end of 3 years, there is almost a 30% probability of a transfer pricing case being closed in Delhi, relative to a 10% probability in Mumbai. However, Mumbai fares better on the “re-opening” cases.²⁰

The fact that Delhi performed better than Mumbai in handling “Assessment after draft assessment order” could be due to various reasons: benches at Delhi could have been

²⁰The log rank statistic rejects the null of the groups having the same survival distribution.

Figure 4 Time taken to complete cases by Section in City



asked to take up these cases on priority; members could have been assigned only such cases to ensure specialisation; the tax department’s lawyer in Delhi could have been more cooperative in disposing off such cases; cases could have been similar in nature allowing benches to decide the matters faster. Identifying the exact reasons would need further research. Our study has revealed the underlying performance of ITAT for future research to focus on.

6.2 Cox proportional hazard model

Table 3 presents the results of the Cox-proportional hazards model. The regression controls for the year the case was first lodged in. The base for the case type variable are the IT-Assessment cases, while the base for the city variable is Delhi, for type of entity is individual, or non-firm.

A positive sign for a coefficient indicates that an increase in the relevant variable is associated with an increase in the failure hazard (case completion) while a negative sign indicates that an increase in the relevant variable is associated with a decrease in the failure hazard. This allows us to study the effect of various factor on case completion.

There is significant variation in probability of case completion for the different types of

cases that are heard at ITAT. The coefficient for the transfer pricing cases (Assessment after draft assessment order) relative to the Assessment cases is negative. This implies a lower hazard, or a lower probability of a transfer pricing case being closed relative to an Assessment case. In fact, the transfer pricing cases reduce the probability of case completion by 85%, statistically significant at the 1% level. On the other hand, relative to the Assessment cases, the Assessment on searched person and penalty for non-compliance cases increase the probability of case completion by 11% and 19% respectively.

Table 3 Regression: Probability of case completion

This table presents the coefficients from the Cox-proportional hazards model. The base for the case type variable are the IT-Assessment cases, while the base for the city variable is Delhi, for type of entity is individual, or non-firm.

	Coefficient
Case: Assessment after draft assessment order	-0.856*** (0.078)
Case: Assessment on searched person	0.114* (0.064)
Case: Penalty for non-compliance	0.192*** (0.046)
Case: Re-opening by tax officer	-0.008 (0.059)
Case: Other	-0.321*** (0.038)
Firm	-0.249*** (0.042)
Mumbai	0.174*** (0.032)
Observations	25,828
Log Likelihood	-43,371.000
<i>Note:</i>	The regression controls for the year the case pertains to.
<i>Note:</i>	*p<0.1; **p<0.05; ***p<0.01

The coefficient for Mumbai relative to Delhi is positive. This implies a higher hazard or a higher probability (almost 17% higher) of a case being closed in Mumbai compared to Delhi. This disparity could be due to various factors: differences in complexities of the matters, judicial administration etc. It would therefore be useful to study the processes being followed by ITAT benches in Mumbai and Delhi and analyse their differences. Future researchers could potentially use time and motion studies to examine the impact of such procedural differences on life span of cases across these two benches.

Again, a negative coefficient on firm indicator shows a lower probability of a case for a firm being closed relative to an individual case. In our data, being a firm reduces the probability by almost 25%. This disparity could be because cases pertaining to firms involve more complicated legal issues or involve a higher disputed amount. Future research could potentially use natural language processing tools to analyse these orders of ITAT to better understand the reasons for such systematic differences between cases involving firms and individuals.

It is evident from our methodology that different types of cases have different trajectories. Most performance statistics about the ITAT show aggregate level data and hence do not reveal these trajectories across case types.²¹ This calls for a deeper granular data-analysis of ITAT's performance. Our methodology provides a starting point for policymakers, and even for the ITAT itself, to take stock of whether the current case completion trajectories are desirable or if there is any scope for improvement. Such regular and consistent review could help create a positive feedback loop. For instance, the Registrar could use his powers under the Income Tax (Appellate Tribunal) Rules, 1963 to prioritise different types of cases.²²

7 Conclusion

In this paper we create a de novo dataset using publicly available data. We then apply statistical techniques of hazard models (or survival analysis) to address questions around case duration at the ITAT. The Cox proportional hazard model allows us to describe patterns in life-span of cases, compare these patterns among groups, and build statistical models of the risk of case completion over time.

We find significant differences in the probability of case completion between the ITAT benches in Mumbai and Delhi. We also find that different types of cases have different trajectories. Our findings are novel in the Indian context since the current aggregate level data about ITAT does not reveal these inner dynamics of its performance. Our methodology is useful in identifying the potential areas of relative delay, which in turn could be useful in designing appropriate policy solutions to improve the performance of courts and tribunals. This paper leaves open a wide array of possibilities for future researchers to pursue.

To precisely pin-point the reasons for disparity across the ITAT benches in Delhi and Mumbai, a richer dataset, advanced technologies and an inter-disciplinary approach to research are necessary. Such a holistic approach is essential for designing effective policy solutions to help improve the performance of the benches of ITAT. Although this approach is beyond the scope of this paper, such research would be immensely useful for policymakers and ITAT members.

²¹For example, see, Tax Practitioners, 2015.

²²See Rule 4A(2)(xiv), *Income-Tax (Appellate Tribunal) Rules, 1963* 1963.

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Appendix

Division of ITAT Zones

Sl. No.	Administrative Zone	Benches within Administrative Zones ²³
1.	Mumbai Zone	Mumbai, Nagpur, Panaji and Pune Benches
2.	Delhi Zone	Delhi, Agra and Bilaspur Benches
3.	Chennai Zone	Chennai Benches
4.	Kolkata Zone	Kolkata, Patna, Cuttack, Guwahati and Ranchi Benches
5.	Ahmedabad Zone	Ahmedabad, Indore and Rajkot Benches
6.	Bangalore Zone	Bangalore and Cochin Benches
7.	Hyderabad Zone	Hyderabad and Visakhapatnam Benches
8.	Chandigarh Zone	Chandigarh, Amritsar, Jaipur and Jodhpur Benches
9.	Lucknow Zone	Lucknow, Allahabad and Jabalpur Benches

²³See, *Income-Tax (Appellate Tribunal) Rules, 1963* 1963.

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