To conciliate or not to conciliate:

Empirical Evidence from Labour Disputes in India

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Abstract:

Methods of alternative dispute resolution (ADR) have become increasing popular relative to court litigation for a wide variety of disputes. Among various types of ADR, the conciliation method of dispute resolution has received less attention as compared to arbitration method. Using a newly obtained from Labour Tribunal in India, the present study focus on the relevance of conciliation method in labour dispute resolution and examine the impact of mandatory and non-mandatory conciliation mechanisms on the negotiated settlement and dispute resolution time. Results obtained from this study indicate that, at an aggregate level, labour conflicts settled in the mandatory conciliation process take less time than those cases appeal in the labour courts. The study also confirms that the overall mandatory conciliation process are succeed in reducing differences in final payments received by workers and in improving their settlement rates as compared to cases proceeded to appeal. At a disaggregate level, disputes settled in the pre reform period experience reduction total disposition time.

Key words: Conciliation, Settlement, ADR, India

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1. Introduction:

Labour conflict resolution is an important part of any well functioning labour market and industrial relation system. In the absence of this mechanism, the labour market is likely to experience the economic strain of labour strikes and industry lockouts through increase in number of workday stoppages and decrease in the production of goods and services respectively. At present, the modern industrial relation system, in almost all countries, provides a multi-tier dispute resolution mechanism to resolve individual as well as collective labour disputes. Each country has developed the range of choices for resolving labour disputes. This mechanism begins with a consultative process wherein, disputing parties, with assistance from a third neutral person, bargain to settle their claims. However, if the bargaining process does not converge into the desired settlement outcome then, as a last resort, disputing parties may proceed to litigation in the labour court. A former mechanism is also referred as Alternative Dispute Resolution (ADR) and consists of - mediation, conciliation and arbitration procedure-that is, the process do not involve going to the labour court and less costly as compared to other methods; whereas the latter involves a formal adjudication in a labour court or tribunal with excessive costs as compared to conciliation and mediation methods. Among many ADR programs, the conciliation and mediation methods provide a loosely structured process in which a third neutral party assists in negotiation through promoting voluntary interpersonal communication and private information sharing. Unlike an arbitrator, a third neutral party both in a conciliation and mediation does not render a decision.

In many legal conflicts, the demand for ADR is getting momentum, and many countries are using this as an effective method for resolution. Notable studies in law and economics also suggest a welfare maximising effects of ADR program that seeks to reduce disposition time and promote settlement (Heise, 2010; Shavell, 1995). However, theoretical models of ADR have gone much ahead relative to empirical studies to support this claim. Recent results from most empirical assessments of ADR program efficiency are mixed(Heise, 2010; Brazil 2006), and they are limited to assess the efficiency of arbitration as one distinct form of alternative dispute resolution mechanism compare to other forms such as mediation and conciliation mechanism (Doornik, 2014;Kaplan et.al 2008; .Ayres and Brown, 1994). Hence, the present study focuses on the relevance of conciliation method in labour dispute resolution and in particular, the study aims to analyse the impact of mandatory and non-mandatory conciliation mechanisms on the negotiated settlement and dispute resolution time. Under the

mandatory conciliation, both parties resolved their dispute with assistance from a neutral conciliator officer and agree to accept the negotiated award. And in the non-mandatory conciliation, both parties can freely accept the negotiated award or prefer to bring the case for resolution to a labour court.

The main motivation to use Indian context stems from a recent amendment to the section 2(a) of Industrial Dispute Act of 1947 that provides a multi tier dispute resolution mechanism. Prior to amendment, both disputing parties are supposed to bring their dispute to the conciliation officer who provide amicable environment for the settlement. But, according to the new amendment of 2010 to the Industrial Dispute Act, parties seeking to redress their disputes in consultative process can have direct access to the labour courts irrespective, of conciliation proceedings or the negotiated outcome of conciliation conference. This amendment allows disputing parties to resolve their case in a labour court.

In a broader context, this change, however, implies that the said amendment to the Act seeks to minimise the role of conciliator in handling labour disputes, and it aims to build up of un-disposed cases before the labour judiciary. On the one hand, an amendment to the Act has been appreciated by many employers association, labour lawyers and civil society organisations (CII, 2010; ISF, 2011). Set of groups who controverts with the amendment argues that it would minimise the role of conciliation method of resolving labour conflicts, which are less costly way to settle the claim than to adjudicate in the labour court (CITU, 2010). However, those groups who support the amendment support that it would liberate them from the adverse bargaining process as well as from the complex process of getting permissions from the appropriate authority to take necessary business decisions in the time of business uncertainties. At present, a comprehensive empirical study is starkly missing to support either claims.

The study use a dataset comprised of samples of labour disputes filled between 2008 and 2011 from two Central Government Industrial Tribunal-cum-Labour Courts (known as CGIT's) – namely-New Delhi and Mumbai. These micro dataset were obtained by using the Right to Information Act of 2005. To address the main research question, this study apply a research design that allow us to disentangle the efficiency of conciliation process as a one form of ADR in settling the labour conflicts as compare to trials in the labour court. To do this, the empirical strategy pool the dataset across time period and labour tribunals, and exploit a simple ordinary least square regression model to estimate the effects of various case

related variables on the outcome of conciliation process. In addition to this, the paper also investigates the impact of an amendment of the Industrial Dispute Act of 1947 on the outcome achieved in conciliation and trials processes. This empirical exercise complements to the first exercise, but instead of pooling the dataset, the paper exploit a dummy variable regression model for comparing the outcomes achieved in the post reform period with the pre-reform period for the conciliated and litigated disputes.

Results obtained from this study indicate that, at an aggregate level, cases settled in the mandatory conciliation process take less time than those cases appeal in the labour courts. Moreover, the study also confirms that the overall conciliation process are succeed in reducing differences in final payments received by workers and in improving their settlement rates. The present study also take into the account a recent amendment to the industrial Dispute Act of 1947, that allows direct access to labour courts implying undermining the role of conciliation process in resolving labour conflicts. Results obtained at the disaggregate level, implies that disputes settled in the post reform period experience reduction total disposition time. This result is consistent with the theoretical prediction of ADR theory and it also corroborate with results obtained at aggregate level. However, the study does not find any significant effect on reduction in differences in final payments and settlement rates.

The paper is organised as follows: section 2 provides the background of previous studies and proposes testable hypotheses. Section 3 describes the institutional underpinning of labour dispute resolution mechanism of India. Section 4 present Data, Research Design and Descriptive Statistics. Section 5 presents the main results. The final section 6 presents the conclusion.

2. **Review of Previous Studies:**

2.1. Theoretical Studies:

This paper is related generally to the literature on settlement bargaining and dispute resolution, and more specifically to the work on alternative dispute resolution. A significant portion of literature has focused on explaining why settlement negotiations fail in legal disputes, and on assessing the effects of case selection in trial court. In this framework, the standard economic models assume that the adjudication is costly; parties to disputes holds private information and they are supposed to behave according to rational decision theory.

These assumptions allow them to take rational account of expected costs of adjudication and therefore, all disputes conclude in the private settlement.

There are two views in the literature that explain why settlement negations fail apart. According to the first view, disputing parties' divergent expectation about the likely outcome of trial drive them to become an excessive optimist, and incentivise them to move from the settlement option to formal suit in trial court (Landes 1971; Shavell 1982; Priest & Klein 1984). A second view explains the role of disputing parties' strategic behaviour and the incomplete information that affects the settlement bargaining (Cooter et al. 1982; P'ng 1983; Bebchuk 1984; Nalebuff 1987). In these models, the defendant will accept the offer in cases where the plaintiff is likely to prevail at trial and will reject the offer in cases where the plaintiff is relatively weak in trial. Both the information structure and divergent expectation can systematically explains the plausible difference between the average underlying merit of disputes that are settled out of court and disputes that proceed to adjudication.

When aggrieved parties fails to negotiate their settlement outcome, then the role of third party become inevitable in providing amenable environment for the settlement of legal dispute. Voluminous studies on ADR give immense importance to the role of third neutral party in resolving legal disputes that promises reduction in the costs and case disposition time as compare to formal litigation. Among many types of ADR, the arbitration method is widely believed to be popular than other methods of ADR. Many hybrid models of arbitration have been evolved, studied and extensively applied in many branches of legal dispute. The arbitration method is applied with aimed to promote settlement negotiation under the shadow of adjudication. Arbitrator, a neutral agent, acts like a potential judge who holds the powers to replicate the court decision. In a seminal work by Shavell (1995) provide an economic model of ADR that assumes parties take rational account of the effects of ADR on the likely disposition of their disputes. The model holds two scenarios- first where both parties hold probabilistic belief about the outcome of ADR and second where, both parties have expected judgement about how ADR influences the outcome of the trial. The study concludes that, the tendency to bring suit is not affected by the voluntary ADR, but this tendency reduces significantly when both parties are supposed to submit their disposition with the court annexed ADR. Second, whether the ADR is binding or not, its effectiveness and application is significantly determined by the outcome predictive capacity of ADR. Therefore, the parties' decision to participate in ADR is presumably determined by how close the ADR predict the likely outcome of litigation and how each parties divergent belief about expected

outcome converged into desired settlement. Even though settlement under ADR might be less costly and take less time than litigation, the parties' motives vary across cases.

In many instances the ADR participation might appear to be effective, some litigants, perhaps those wary of 'second-class justice' either avoid ADR altogether or after participating in ADR take legal disputes to trial (Brazil, 2006) or they could sense some reasonable level of uncertainty (both factual and legal) about their case outcome so that they could bear the cost of litigation (Priest and Klein, 1984). In a study by Rosenberg and Folberg (1994), provides compelling evidence on effectiveness of mandatory ADR programme from the Northern District of California. In this empirical study, parties engaging in the mandatory ADR programme reported to felt more satisfied than that those who went to trial. In terms of effectiveness, the mandatory ADR programme improves information sharing between parties, reduces potential cost of trial and reduces case disposition time.

Manzini and Mariotti (2002), using a standard theoretical model of Rubinstein (1982), concludes that in the unilateral arbitration, the size and content of the arbitrated outcome cannot on its own explain the frequency and recourse to arbitrations. Other factors that are outside the bilateral negotiation plays important role in influencing parties' behaviour to engage into the arbitration. In contrast, consent arbitration sometimes increases the strategic complexity of the game to the point where inefficient outcomes with delays in agreements. In both situations, it is assumed that parties enjoys the rights to alter offers in repeated games and the threat to call in an arbitrator would prevail if and only if either party gets lower offer than expected from the bargaining.

Another notable study by Friedman and Wickelgren (2008) use the asymmetric information bargaining model to examine both the costs and benefits with increasing rate of settlements. They conclude that the settlement can have benefits of reducing litigation costs and delay, but it can also reduce deterrence and the accuracy of the legal system.

A settlement of legal claim is a deliberate act and disputing parties would participate in the process of settlement of their respective claims only if such an outcome is consistent with both parties interest. Some of the notable studies as elaborated above explain us the main drivers of settlement in any legal disputes, and provide us the advantages of alternative dispute resolution in promoting settlements. Although most theoretical studies on ADR agree that the participation in ADR indeed have positive incentives for disputing parties, however the empirical research on the efficacy of ADR is scant.

2.2. Empirical Studies:

In a recent review of empirical studies of 27 general civil litigation court-connected ADR programs, Wissler (2008) found that settlement ranged from 27 to 63 percent. Out of 27 studies, however only eight included a control group of non-ADR cases. Of those eight studies, approximately one-half found no difference in settlement rates between ADR and non-ADR cases. The other half of studies found that ADR cases tended to have a somewhat higher rate of settlement or a somewhat lower rate of trial judgement on a dispositive motive. Heise (2010), using data from 46 large counties consisting of 8038 trials that generated 965 filed appeals, with 166 appeals participating in ADR programs, finds a mixed support for ADR programs. Specifically, the study indicate that participation in an ADR program correlates with an increased likelihood of settlement but not with reduced disposition time and ADR program mixed efficacy diminishes its appeal to litigants.

In a similar vein, the study by Kaplan et.al. (2008), exploit a newly assembled dataset on procedures filed in Mexican labour tribunals to analyse the determinants of final awards to workers. The study indicates that on an average, workers receive less than 30 percent of their claims in trial judgement as compare to settlements. Multiple claimants against a single firm are less likely to settle, which partly explains why workers involved in these procedures receive lower percentages of their claims. Regardless of motives and advantages of ADR, case settlements obtained in ADR create private and public benefits. In addition to such benefits flowing from timely and less costly resolution of disputes, the disappearing trials trend also permits judiciary to devote more time and care to other important branches of legal systems that requires much resources and close attention.

There are many factors that limit the comparison between the present study and many other important empirical studies discussed above. The studies discussed so far tends to focus on the participation in court annexed ADR in pre-trial stage and arbitration as one form of ADR that promote settlements of legal claims. However, there is a notable absence of work in the area of conciliation that is more flexible way to resolve disputes than those discussed above. In this paper, the detailed information is collected on the amount of settlement, initial offer and the court award, which otherwise is unavailable in many studies that we have discussed so far. Absence of important data on the amount of the initial claim means that the present study cannot compare the percentage of recovery achieved by the plaintiff in many empirical

studies. Information on settlements usually unavailable, so empirical work in the area of ADR has focused on the probability of settlement or on failed settlement offers.

Clearly due to plausible differences across the datasets, legal areas and time period studied in the literature; the present study attempts to provide a fresh perspective on the role of conciliation mechanism in resolving labour conflicts by using the framework of ADR. More specifically, the study analyse the impact of the mandatory and non-mandatory conciliation mechanisms on the negotiated settlement and dispute resolution time.

2.3. Research Hypothesis:

2.3.1 The paper assumes that conciliation method is less costly and flexible way to resolve dispute than adjudication. Therefore, the paper hypothesize that settlements rates are higher in disputes participating in mandatory conciliation process as compare to dispute participated in non-mandatory conciliation process that allows both parties to proceed in a labour court.

2.3.2 In the mandatory conciliation process, a conciliator officer stimulate a mutual communication between parties about the private information that generate better incentives for the parties as accuracy in determining the negotiated improves than it would be litigated in the labour court. Therefore, the study hypothesizes that the difference between the initial claim and final settlement negotiated in the mandatory conciliation would be less than those disputes concluded in the non-mandatory conciliation mechanism.

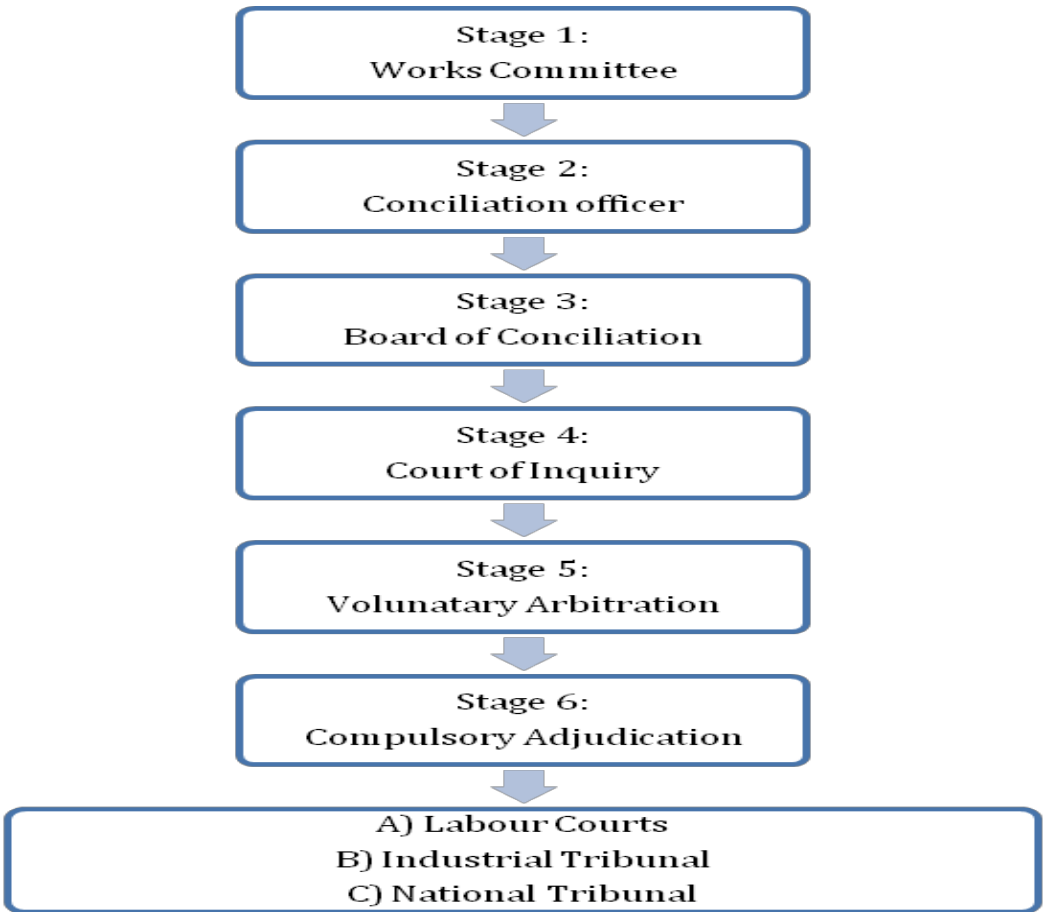
2.3.3 Finally, the present paper propose that the total disposition time for dispute resolution in the mandatory conciliation process is lower than those disputes resolved in the non-mandatory conciliation process.

3. Institutional Background: Labour Dispute Resolution Mechanism in India

The Industrial Dispute Act of 1947 deserves a special attention in this paper. The main objective of the Act is to govern the industrial dispute resolution procedures. This Act along with other labour laws is continued from pre-independence period; hence, it promulgates the British Legacy and British wartime legislation that were aimed to regulate industrial conflicts and peacefully sustain the production activities (Ahmed, 2001). The Act applies to a variety of establishments and industries in India. The term "industrial establishment" or "industries" is used in the widest possible sense, bringing almost all economic activities within the ambit of the Act. The Act applies to all "workman" employed in these industries as defined above but does not applies to the person who is engage in the industry in supervisory/managerial capacity or drawing more that 1600 (Indian Rupees) as a monthly salary. In spite of that, the broad coverage of the Act makes it one of the most widely applied acts in the India. The Acts main objective is to govern the industrial dispute resolution mechanism and provide a multitier dispute resolution setup for resolving labour conflicts.

Figure 1 explains the stages of industries disputes resolution system in which collective as well as individual dispute are resolved at various levels. These stages can be better explained by the following example. Suppose a worker receive a notice from his/her employer that he/she has been terminated from the employment of a firm and if she/he thinks that it is an unjust according to the law then she/he can raise this issue in a stage 1 before the work committee or else in front of Conciliation Officer (CO) (stage 2). A similar procedure is applied to collective bargaining dispute as well (Saini,1993). These two stages are also known as conciliation stage, where parties to the dispute can resolve their dispute through mutual negotiation. If, an employee feels that the negotiation is not a fair or for any reason the negotiation fails the CO can refer this issue to the appropriate government where, with the help of Board of Conciliation (an independent body constituted by the appropriate government) proceeds the negotiations in a fair manner.

Figure 1: Industrial (Labour) Dispute Resolution System



Source: Industrial Dispute Act of 1947.

However, it has been noted that such institutional body do not exist in reality (ibid). So the CO after hearing the bargaining deals prepares a confidential report about failure of negotiations. The report then proceeds to the Directorate of Labour or Chief Labour Commissioner of the respective state. Depending upon the matter and its legal standing, the appropriate government further in the stage 4 may constitute a court of inquiry for investigating the matter about the dispute, and its main determinants of the failure of negotiations. Therefore, from the stage 1 to stage 4, the parties to dispute may have a chance to reach to a solution through the state mediated bargaining mechanism (i.e. a mechanism for conciliation). If the conciliation mechanism fails (i.e. from stage 1 to 4) then parties to dispute may approach for the settlement of industrial dispute through voluntary reference to arbitrators (stage 5) under section 10-A of the Industrial Dispute Act, 1947. However, the final decision of the arbitrator in the dispute is binding upon all parties of the dispute. Though, it has many advantages over other mechanisms of dispute resolution (such as no

litigation cost, expediency in delivering awards etc.), this method has not yet seen as a popular method. Moreover, the efficacy of arbitration is largely buttressed by reliance on the state intervention (Malhotra, 1998; Roa, 2001). As a consequence of this, the dispute that had been moved from the stage 1 (from conciliation to arbitration) enters into the stage 6 with a proper reference from the appropriate government. This is a stage as mentioned above a compulsory adjudication stage wherein every dispute resolved in the Labour Courts, Industrial Tribunal and National Tribunal under section 7, 7A(1) and 7B(1) respectively.

In Indian industrial relation, the role of conciliator is a pivotal in dispute resolution process and is empower to inquire into the dispute and suggest possible solutions to bring the parties into an agreement (Basu, 2012; Rao, 2001). The conciliator officer is the first point of reference for the dispute resolution, when the bilateral negotiation fails. As per the section 11 of the Industrial Dispute Act, 1947, all the dispute are routed through the jurisdiction of a conciliator officer to various stages of resolution (i.e. an arbitration and adjudication in the labour tribunal).The modus operandi of dispute resolution is to raise a dispute before the conciliation officer who must endeavour to resolve the raised dispute within 14 days from the date of raising the dispute. However, the process of conciliation is invariably time consuming. The conciliation officer normally calls a meeting of the parties, and if his efforts are not successful, he may decide to call another conference at a later date. On occasion, conciliation meetings last a whole day when the subject matter of the dispute involves much discussion. The strategy is to try to ascertain each party's bargaining and actual positions and to suggest suitable compromises in order to settle the dispute. If his conciliation efforts are not successful, the officer may decide to call a meeting at a later date, or may submit a failure report of the meeting with his recommendations to the appropriate government. The appropriate government may make a decision to refer the dispute to labour court or national tribunal for adjudication.

4. Data, Research Design and Descriptive Statistics:

This paper use a collected dataset comprised of samples of labour disputes filled between 2008 and 2011 in two Central Government Industrial Tribunal-cum-Labour Courts (known as CGIT's) – namely-New Delhi and Mumbai. These micro dataset were obtained by using the Right to Information Act of 2005. Initial request for the data were made under the Act to collect the detailed information on labour disputes, terms of settlements, labour court award, the nature of disputes, parties to dispute etc. from 13 major CGIT-cum-LCs in India.

However, due to sensitivity of the data and the confidentiality clause of the dispute resolution procedure of conciliation officer's report, the respective authorities of the Ministry of Labour and Employment of Government of India and Registrar of the CGIT-cum-LCs have officially responded to request by providing a dataset from two CGIT-cum-LCs. There are 26 industries that falls under the purview of central sphere in which the Central Government of India is an appropriate authority, and it is a principal owner of companies operating in those industries[2]. Both tribunals covers firms listed in the central sphere industries and those firms registered under the Factories Act of 1948. The micro dataset contains information of 234 labour disputes from Mumbai CGIT-cum-LC and 203 labour disputes from Delhi CGIT-cum-LC for the period 2008-2011. The main causes of disputes are retrenchments, dismissals, bonus, wage and other allowances, others (includes -worker's injuries, discrimination, accidents), and firm closures.

As mentioned in the previous section, labour disputes brought into the Indian dispute resolution mechanism either through conciliation process or with a new amendment directly refereeing to the labour courts. In the conciliation process, there is only one statement of facts made jointly by the employer and employee in the presence of conciliator officer and resolution of procedure is always a negotiation that results into settlement. A legal claim that brought into labour judiciary contains the worker's claim, the employer's counter claim or reply, the terms of negotiations that were failed in a conciliation process, and finally the terms of court ruling if the case is not settled.

In this section, the paper describes the main variables relating to the legal claim, disputing parties' information and resolution of conflicts. For all procedure filed in the sample disputes, the study observes the cause of dispute, the date of filing, the geographic location of disputes, initial claims of the workers, a case disposition time (in days), tenure of workers, award of labour courts, settlement amount in conciliation process, number of conciliator officers and tribunal judges, and finally, whether the procedure is a settlement or a legal suit. The

[2] The main central sphere industries includes- 1) Transport Services 2) Agro Based Industries, 3) Medium & Light Engineering 4) Consumer Goods 5) Tourist Services 6) Financial Services 7) Contract & Construction Services 8) Transportation Equipment 9) Chemicals & Pharmaceuticals 10) Heavy Engineering 11) Coal & Lignite 12) Petroleum (refinery & Marketing 13) Other Minerals & Metals, 14) Telecommunication Services 15) Textiles, 16) Industrial Development & Technical Consultancy Services 17) Consumer Goods 18) Trading & Marketing 19) Steel 20) Fertilizers 21) Power Generation 22) Banking 23) Crude Oil 24) Insurance 25) Crop Insurance 26) Contraceptives, Pharmaceutical and Medical Devices.

information obtained from the respective government officers can also be verified with various annual reports published by the Gazette of India.

To address the main research question, this paper apply a research design that allow us to disentangle the impact of mandatory conciliation process on the negotiated settlement and disposition time as compare to non-mandatory conciliation process (that is often proceed to the trials in a labour court). To do this, the study pool the dataset across time period and labour tribunals, and exploit a simple ordinary least square regression model to estimate the effects of various case related variables on the outcome of conciliation process. I regress the same variables on the outcome of cases litigate in the labour courts. The three main variables of interest are – a) total case disposition time, b) differences in outcomes achieved by workers (both in mandatory and non-mandatory conciliation process), and finally c) the final payments received by workers. There are many factors that affect the outcome achieved in the resolution process. However, due to limitation of the dataset that are obtained from the government sources, the paper use workers initial claims, their total tenure in the employment, participation the dispute resolution via conciliation or directly approaching the labour court, and a size of the labour judiciary as pivotal independent variables that are likely to have impact on the dependent variables. These variables are observed separately for each conciliation types in both CGIT's. The first exercise of pooling the dataset allows us to analyse the statistical associate between the case related independent variables with the dependent variables.

In a second exercise, the paper investigates the impact of an amendment of the Industrial Dispute Act of 1947 on the outcome achieved in the mandatory and non-mandatory conciliation processes. This empirical exercise complements to the first exercise, but instead of pooling the dataset, I exploit a dummy variable regression model for comparing the outcomes achieved in the post reform period with the pre-reform period. In this approach, I assign a dummy variable to the dispute those concluded in the post reform period and then I compare the outcomes with the pre reform period.

In addition to two empirical approaches, the paper also adds two fixed effects to the empirical models. The CGIT-specific fixed effects are employed to control for CGIT-specific factors such as total size of workforce, workload, proximate distance from the Supreme Court of India and the location of industrial zones. The year-specific fixed effects are employed to

capture the year-specific factors such as common shocks of industrial unrest and amendments in the workfare programme etc.

Table 1 illustrates, the descriptive statistics of labour conflicts concluded in the mandatory conciliation process and appealed in the labour court for two CGIT's respectively. In our Mumbai tribunal sample, there were 234 disputes entered into the industrial dispute resolution system during the period 2008-2011. Out of 234 raised disputes, approximately 64 percent of disputes (i.e. 149 disputes) concluded in settlement with a conciliation officer of respective state government and 36 percent (85 disputes) of disputes were proceeded to and concluded in the labour tribunal. The mean values of worker's initial claim, settlement obtained in the conciliation and labour court award are INR 685627, INR 607335 and INR 650361 respectively. It is interesting to note that, the average value of difference between worker's initial claim and settlement outcome is much lesser than the difference between initial claims and award received in the labour court. This also implies that due to procedural flexibilities, settlement obtained in the mandatory conciliation process reduce the expectation gaps between the parties claims relative to awards concluded in the labour courts.

There are 203 labour disputes registered with New Delhi CGIT. Out of 203 disputes, 69 percent (142 disputes) of disputes were successfully concluded in the conciliation process and 31 percent (65 disputes) of disputes were tried in the labour court.

Table 1: Descriptive Statistics- Mumbai and New Delhi

	Mumbai			**New Delhi**		
	Obs.	**Mean**	**Std.Dev**	**Obs.**	**Mean**	**Std.Dev**
Initial claim*	234	685627	307782	203	663351	327146
Settlement in conciliation*	149	607335	272797	142	574548	283395
Case Disposition Time[#] (Conciliation)	234	126	70.75	203	139	71.92
Award in labour court *	85	650361	288679	65	677234	323489
Case Disposition Time[#] (Tribunal)	85	448	130.21	65	472	137.68
Participation in Conciliation	234	0.64	0.48	203	0.70	0.46
Participation in Tribunal	234	0.36	0.48	203	0.29	0.45
Number of Judges and Conciliator Officers	234	36	1.97	203	23	2.20
Tenure of Work[#]	234	5073	1784	203	5286	1806
Difference in Settlement*	149	60308	30620	142	63618	77238
Difference in Award *	85	66792	31543	65	58873	41216
Difference in Settlement[@]	149	10.84	0.62	142	10.79	0.74
Difference in Award [@]	85	10.96	0.60	63	10.89	0.64

Notes: *- in Indian Rupees (INR), #- in days, @- in logs

Source: Author's own calculation based on collected data.

In New Delhi CGIT, the difference between worker's initial claim and settlement amount is higher than those differences in disputes that were ended in the labour court. In both CGIT's, on an average the disputes concluded in conciliation process tends to take much less time than the disputes litigated in the labour court.

Table 2 provides a descriptive statistics of all disputes entered in both CGIT's. Labour conflicts related with outstanding bonus payments and annual increment in wages and other allowances are frequent causes of disputes that we observe in samples drawn from both CGIT's. Both causes of disputes are raised under the Payment of Bonus Act of 1965 and Payment of Wages Act of 1936 respectively. Under the conciliation process, both types of disputes takes less time to settle the claims as compare to disputes litigated in the labour tribunals. Labour disputes raised to recover the arrears in bonus payments are settled quickly in conciliation process. The differences in the final bonus payments received by workers are lower than differences in payments that workers would receive in the labour courts.

Table 2: Descriptive Statistics: Mumbai and New Delhi- (cause-wise)

	Mumbai			**New Delhi**		
	Obs.	**Mean**	**Std.Dev**	**Obs.**	**Mean**	**Std.Dev**
			Bonus			
Initial claim*	111	680922	307542	100	683179	312586
Settlement in conciliation*	68	607011	267033	71	587005	270038
Case Disposition Time# (Conciliation)	111	139	70.64	100	134	70.73
Award in labour court *	43	638028	298939	30	719803	307341
Case Disposition Time# (Tribunal)	43	468	130.65	30	497	139.96
Difference in Settlement*	68	59379	30006	71	57317	28330
Difference in Award *	43	65874	32458	30	61525	45766
			Closure			
Initial claim*	12	755073	275176	14	586633	334286
Settlement in conciliation*	8	661235	246439	12	458414	284876
Case Disposition Time# (Conciliation)	12	129	50.94	14	167	82.67
Award in labour court *	4	727526	281827	3	694318	299829
Case Disposition Time# (Tribunal)	4	452	112.95	3	395	32.25
Difference in Settlement*	8	67027	27841	12	115613	251036
Difference in Award *	4	81169	35695	3	68116	22527

			Retrenchment			
Initial claim*	20	663286	325751	17	528588	270820
Settlement in conciliation*	13	465489	237595	12	510820	269155
Case Disposition Time# (Conciliation)	20	104	67.47	17	153	76.05
Award in labour court *	7	870421	203725	5	405225	182748
Case Disposition Time# (Tribunal)	7	366	110.13	5	484	130.87
Difference in Settlement*	13	40537	20188	12	52612	27170
Difference in Award *	7	84918	25198	5	39740	20413
			Wages and Allowances			
Initial claim*	80	718767	297234	53	696272	363319
Settlement in conciliation*	51	671140	263444	32	587721	312705
Case Disposition Time# (Conciliation)	80	108	67.78	53	123	59.88
Award in labour court *	29	619382	280853	21	708218	355350
Case Disposition Time# (Tribunal)	29	448	131.27	21	449	139.35
Difference in Settlement*	51	68182	29749	32	60546	32814
Difference in Award *	29	63246	30592	21	61207	42889
			Others			
Initial claim*	11	456939	332559	15	699354	300731
Settlement in conciliation*	9	405200	316920	11	718296	224540
Case Disposition Time# (Conciliation)	11	169	79.59	15	162	80.44
Award in labour court *	2	440183	255804	5	503215	338854
Case Disposition Time# (Tribunal)	2	317	116.67	5	411	139.32
Difference in Settlement*	9	45290	40581	11	75163	24683
Difference in Award *	2	45778	32851	5	42368	32628

Notes: *- in Indian Rupees (INR), #- in days, @- in logs Source: Author's own calculation based on collected data.

It is important to note that, disputes pertaining to wages and allowances do not show positive effects of disputes settled in the conciliation process relative to those concluded in the labour courts. This is also possible due to wages and allowances are prone to varied across states and it is a subject to prevailing real wages, costs of living, inflation and the level of economic activity of each states. However, such variation could not be possible with the disputes of payment of bonus, since it is a discretionary payment that workers would receive subject to firm's financial position. Disputes pertaining to firm closures, unjust retrenchment and others (includes, discrimination, sexual harassment, workplace accidents etc) are less frequent types of disputes that entered into our sample disputes. Therefore, the summary statistics of labour conflicts are indeed confirms the main prediction of ADR theory that disputes settled in the conciliation process takes less disposition time than cases concluded in the labour courts. Nonetheless, the descriptive statistics shows a mixed results for the settlement rates, final

payments received by workers and differences of payments obtained in the conciliation vis-à-vis in the labour courts.

Figure 1 to 6, provides a kernel density estimates for disposition time, differences in final payments and final amounts received by workers in both CGIT's. These figures are presented to capture the distribution of outcome variables that are concluded in conciliation and litigated in labour courts. Figure 1 and 2, shows that despite the observed distribution processing a bit more spread, on balance the dependent variable- disposition time, expressed by the square root of raw numbers of days for conciliation and trial courts. In figure 1, there are two modes which indicate that on an average the disputes that are similar in nature resolved in a same time frame. In figure 2, the observed time disposition variable is skewed towards right with a long tail. This implies that the actual time taken to resolve the disputes in labour courts is higher than those approximated by the normal density distribution. Figure 3, shows the density estimate of differences in the amount received by workers in the conciliation process. The observed densities of disputes are actually approximate the normal density estimate. However, one can observe in figure 4 that, the same approximation with normal density estimate cannot be ascertained for disputes litigated in the labour courts.

Figure 1

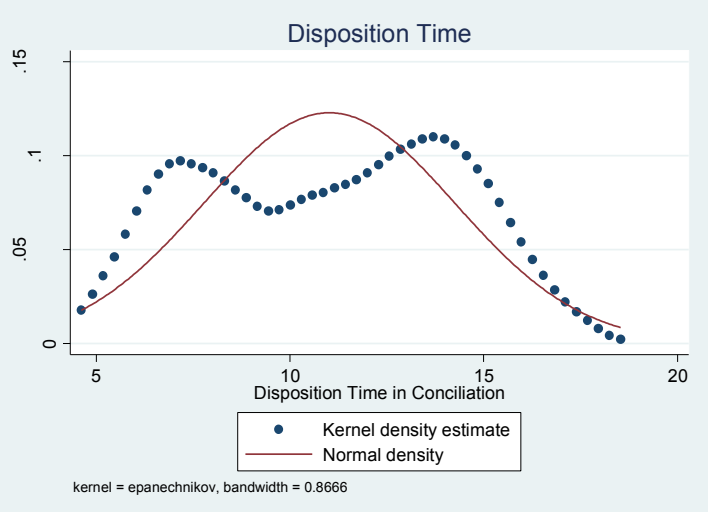


Figure 2

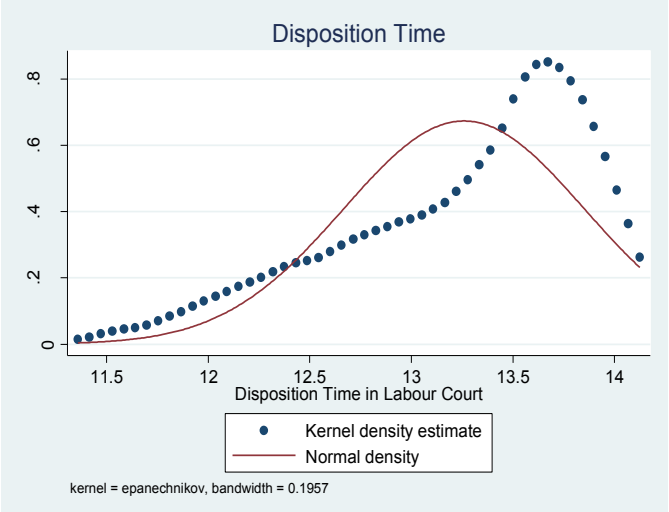
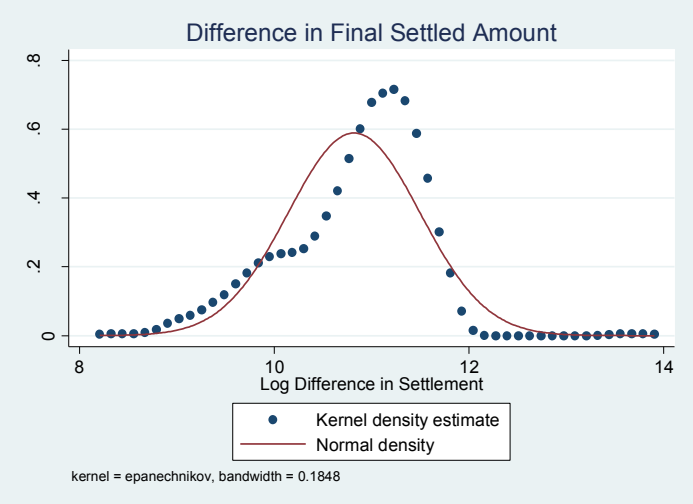
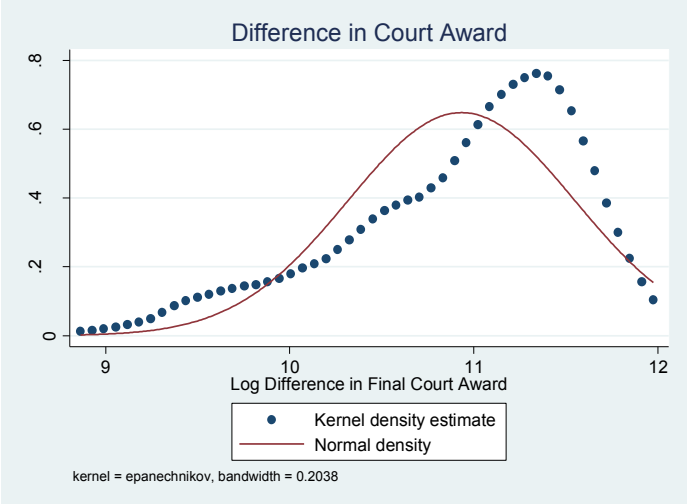


Figure 3

Figure 4





The actual difference of claim realised in the courts are much higher and skewed towards right than anticipated by the normal density estimate. As we can see in Figure 5 and 6, the final amounts obtained are tilting towards rights, even though it approximates the normal density estimate. From both figures, we can infer that the actual receipt of final payments have same magnitude in both systems and do not show any systematic deviation.

Figure 5

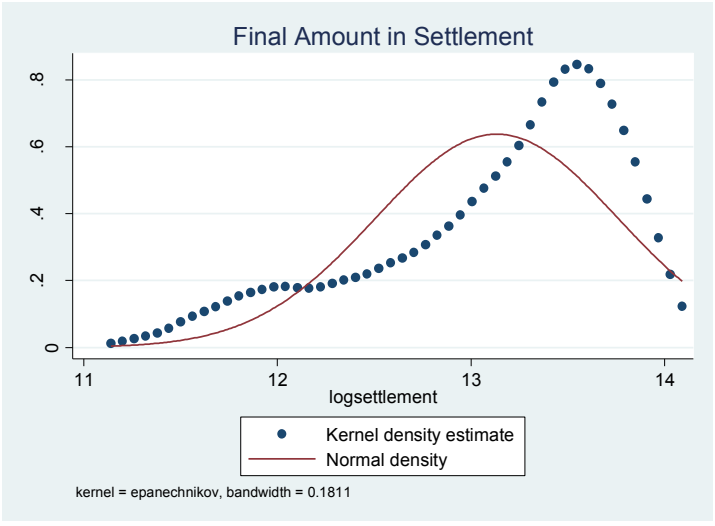
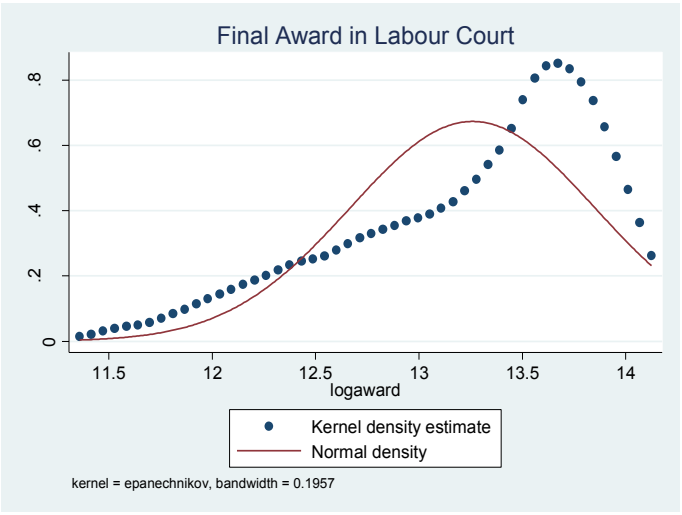


Figure 6



In figures 7 to 9, the study present a slightly different perspective on the outcome variables than those pictures presented in figures 1 to 6. Similar to previous graphical exercise, instead of looking at the spread of outcome variables, we look at the box plot of each variable of

interests. In figure 7, we can see a subtle difference in the dispute disposition time. Overall the median (a single bold line in the middle of box) disposition time for disputes settled in conciliation is lower than the median disposition time for disputes concluded in labour courts. The two subgroups are most similar, in terms of the spread between the 25th and 75th percentiles. In figure 8, we can see that the median differences in final amounts to workers are almost similar in both methods and they have equal spread at the bottom and top percentiles. As same equivalence can also be reveals in figure 9, where the spread of box plots are almost similar in all dimensions, however the median final amount received in the labour courts are higher compared to settled disputes.

Taken together, our graphic exercise from figure 1 to 9 and preliminary results of summary statistics, indicate that the average settled appeal took less time to conclude than the average appeal pursued to a court decision. What these figures and the table largely mask, however, is critical within group variations. Moreover, this analysis also presents a mix picture for the plausible positive effects of differences in claim settled and the final payment received by workers. To address the statistical relationship between dependent variables and independent variables as main observable determinates of legal claims, in the next section, this paper exploits the empirical strategy to test the proposed hypothesis.

Figure : 7

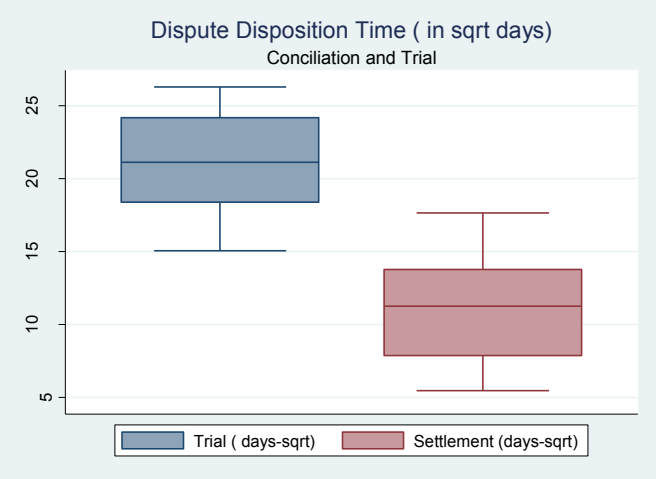


Figure:8

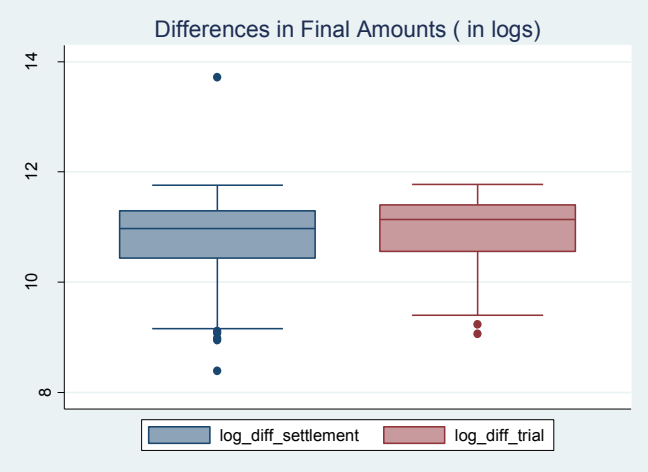
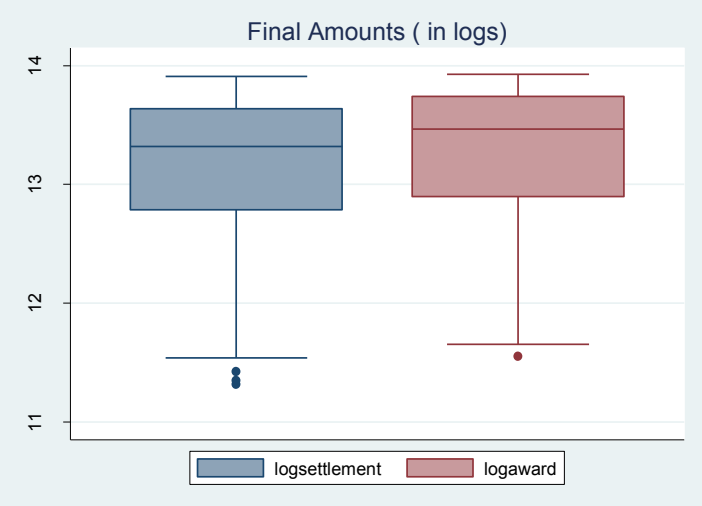


Figure:9



5. **Main results:**

A standard theory of ADR in law and economics literature, predict that participation in ADR improves settlements rates and reduces case disposition time. Theoretical literature on this topic has gone much ahead relative to empirical literature that tests major prediction of ADR models. With the growing popularity of ADR programs and relatively small emerging literature on assessing the efficiency of ADR programs in several branches of legal disciplines, this paper adds to aforesaid literature by investigating the efficiency of conciliation method of resolving conflicts as against to traditional adjudication method. The database is obtained from the Indian labour courts, and it provides a unique opportunity to

study the association between determinants of legal claims and their outcomes achieved in two types of dispute resolution mechanism.

Table 3, reports the results of simple ordinary least square model estimating the relationship between independent variables and the dispute disposition time. The dependent variable is total dispute disposition time in square days for both mechanism employed in Indian industrial relation to resolved labour conflicts. The key independent variables are the participation dummy that takes value of 1 if cases are settled in conciliation and 0 otherwise for the conciliation process, as well as the same dummy variable is assigned to disputes proceed and concluded in labour courts. The study also includes another three key independent variables that are relevant for the empirical analysis. Among them, the first variable is worker's initial claim. A starting point for any legal battle is unsatisfactory conflict resolution mechanisms that are expected to be at its place. In the matter of labour conflicts, if workers initial claims are not heard by his/her employers then it becomes a main reason for the burgeoning tension between the employer and employee. Due to labour laws and national legislation that insulate workers welfare, the worker's lobby enjoys the legal rights to raise their concerns with respective government authorities. It is a subject of debate, whether the size of initial claims matters for the selection of disputes resolution mechanism in labour conflicts or perhaps they randomly select particular mechanism to redress their conflicts. Therefore, instead of addressing other aspects of initial claims as a potential cause of conflict, this paper treats this variable as a main independent variable. Second important variable is the size of workforce that is employed in India's industrial disputes resolution systems. It includes the total number of judges posted in various labour courts and total number of conciliator officers who are responsible for mediating the conflicts resolution and refereeing them to the appropriate authority (such as the government, labour courts and an independent arbitrator) for further reference.

Table 3: Effects on Dispute Disposition Time (Dependent variable- Disposition Time in Sqrt-days)

	Conciliation (Mandatory)	**Appeal(Non-Mandatory Conciliation)**
	(A)	(B)
Participation Dummy[a]	-0.069**	-1.224
	(0.331)	(1.316)
Worker's Initial Claim (log)	0.009	0.386
	(0.253)	(0.438)

Number of Judge's and Conciliation Officer's (Per 10000 population)	0.559 (93.60)	-12.258* (74.83)
Worker's Tenure (in log days)	-0.3975 (0.407)	-0.110 (0.687)
Constants	13.782*** (5.029)	19.285*** (8.318)
R-sqr	0.10	0.30
Number of Observations	150	287

Notes *significant at 10%, ** significant at 5%, ***significant at 1%. Robust standard errors are reported in parentheses. [a] participation dummy variable takes value of 1 if the dispute is settled in the conciliation process (for column A) and it again takes value of 1 if the dispute is resolved in the labour courts (for column B). All specification includes the CGIT and time specific fixed effects.

Table 4: Effects on Final Payments (Dependent variable- Final Payment in logs)

	Conciliation	**Appeal**
	(A)	(B)
Participation Dummy[a]	0.228*** (0.741)	0.021 (0.012)
Worker's Initial Claim (log)	0.986*** (0.024)	0.001*** (0.004)
Number of Judge's and Conciliation Officer's (Per 10000 population)	2.180 (4.209)	2.292 (0.699)
Worker's Tenure (in log days)	0.006 (0.038)	0.009 (0.006)
Constants	-2.508*** (0.470)	--0.173** (0.077)
R-sqr	0.091	0.099
Number of Observations	150	287

Notes *significant at 10%, ** significant at 5%, ***significant at 1%. Robust standard errors are reported in parentheses. [a] participation dummy variable takes value of 1 if the dispute is settled in the conciliation process (for column A) and it again takes value of 1 if the dispute is resolved in the labour courts (for column B). All specification includes the CGIT and time specific fixed effects.

Table 5: Effects on Difference in Final Payments (Dependent variable- Difference in Final Payment in logs)

	Conciliation (Mandatory)	Appeal(Non-Mandatory Conciliation)
	(A)	(B)
Participation Dummy[a]	-0.218***	0.451
	(0.812)	(1.531)
Worker's Initial Claim (log)	0.993***	0.990***
	(0.024)	(0.008)
Number of Judge's and Conciliation Officer's (Per 10000 population)	2.156	3.033
	(4.243)	(3.560)
Worker's Tenure (in log days)	-0.005	-0.055
	(0.039)	(0.332)
Constants	-2.337***	-2.208***
	(0.469)	(0.414)
R-sqr	0.092	0.087
Number of Observations	150	287

Notes *significant at 10%, ** significant at 5%, ***significant at 1%. Robust standard errors are reported in parentheses. [a] participation dummy variable takes value of 1 if the dispute is settled in the conciliation process (for column A) and it again takes value of 1 if the dispute is resolved in the labour courts (for column B). All specification includes the CGIT and time specific fixed effects.

The third and final key independent variable is workers actual tenure of employment in respective firm. This variable is measured in log days. For any disputes to be raise under the Industrial Dispute Act of 1947, the total service tenure has to be more than 260 days in year without any interruption in the employment contract. Uninterrupted service tenure strengthens the workers position as being recognised as a regular worker or temporary worker.

To test the proposed hypothesis, table 3 estimate the effects of key independent variables on the dependent variable. Column (a) in table 3 shows that workers participated in conciliation process with their due claims tend to settled quickly than those claims proceeded in labour courts. The coefficient on participation dummy is negative and significant at 1 percent. This implies that on average workers participated in conciliation process tend settled their claims much promptly. However, disputes litigated in the labour court also take less than as compare with conciliation process. The coefficient on participation dummy is negative but insignificant, thus the study rule out the possibility of disputes concluded in courts takes less time relative to conciliation mechanism. Therefore, the results obtained from table 3 supports the proposed hypothesis and confirm that ADR participation reduces case

disposition time.

Table 4 reports the results obtained from estimating the impact of key independent variables on the final amount received by workers. This table also explain the nature of association between the determinants of legal claims and final settlement. Column (a) in table 4, indicate that disputes settled in conciliation process positively correlate with the final payment received by workers. This also implies that settlement rates are positives in conciliation process. The coefficient on participation dummy is positive and significant at 1 percent. Another interesting point is that , workers initial claims is also positively related with final payments. This positive relationship also indicates that all settled disputes in conciliation are more or less receives the same settlement offer which is equivalent with the initial demand. Disputes appeal in the labour tribunal as indicated in column (b) of table 4, concludes in positive award, however, the coefficient on participation dummy for appeal is insignificant. This could be due to procedural delays in court ruling for the final award that sometimes reduces the real value of monetary claims that would be obtained in future time period. However, this may not be true in cases settled in conciliation process that are much flexible and prompt in concluding the labour dispute. Therefore, one can infer that settlement rates are positive and significant with conciliation compare to appeal in labour courts.

Table 5 estimate the effects of determinants of legal disputes on the difference in final legal claim received in conciliation and concluded in appeal with labour courts. As mentioned in the previous section, conciliation process provides flexibility in procedure and always stimulates healthy dialogue between disputing parties with assistance from conciliator officer. Due to exchange of information in an amicable environment, parties to dispute can easily verify the merit of a legal claim and could assess its legal standing. Therefore, differences in claims and counter claims could be reduced through promoting negotiations, otherwise it could not be possible in labour courts. Column (a) in table 5 shows that participation dummy is negatively associated with difference in settlement amount received by workers. The coefficient on participation dummy is significant. However, the participation dummy is positive larger in magnitude in column(b) of same table. This results implies that participation in conciliation significantly reduces differences in worker's initial claim and final settlement offer. This is due to flexible approach of conciliation process to dispute resolution that allows exchange of information between parties and enable them to assess the merit of a legal claim.

In the light of ADR theory predictions, results obtained from table 3 to 5 by pooling dataset from two CGIT's and over time period between 2008-11, the study infers that ADR participation through disputes concluded in conciliation process reduce total disposition time, promote settlement and reduces differences in the final payments received by workers. Therefore, the role of conciliation process in resolving labour conflicts is indeed efficient method as compare to adjudication in labour court.

Now we assess the effects of amendment to the Industrial Dispute Act of 1947 that granted a direct access to the labour court irrespective of conciliation proceedings. As mentioned in the introduction section there are both claims that support and argue against the amendments in the Act. However, there is absence of significant empirical study that proves the conciliation method is inefficient in terms of resolving disputes. The study does not carry any presumptions about the validity of amendments or does not claim that an amendment is efficient or not. But rather we conduct an empirical investigation, to assess cases settled or concluded in the post reform period with the pre reform period.

From table 6 to 8, we repeat the same empirical exercise with a slight modification. The dummy variable for participation is now focused on disputes that are concluded or settled in post reform period. Results obtained from table 6 indicate that disputes settled in the post reform period significantly reduce the total disposition time and the effect of participation dummy is negatively correlated with dependent variable. The same negative relationship can also be observed for disputes appealed in labour courts. The coefficient on participation dummy is significant for conciliation, implies that the process of conciliation has statistically significant correlation in reducing the disposition time. The results also corroborate with results obtained from pool data in table 3. Therefore, the study infers that conciliation process of dispute resolution is significant and useful in reducing case disposition time.

Table 7, provide the results on the final payment received by workers in the post reform period. It is predicted that the participation in ADR will promote settlement and the final offer received by workers will be positive. However, in the post reform period, disputes settled in conciliation indicate a positive relationship with final payments received by workers and negative relationship with final payments awarded in labour court. The coefficients on participation dummy variables for both sub-groups are insignificant, implying that in the post reform period participation in either process has no significant effect on the successful conclusion of labour dispute in conciliator or in appeal in the labour court.

Table 6: Effects on Dispute Disposition Time (Dependent variable- Disposition Time in Sqrt-days)

	Conciliation (Mandatory)	**Appeal(Non-Mandatory Conciliation)**
	(A)	(B)
Participation Dummy[a]	-3.089***	-0.2758
	(0.375)	(0.570)
Worker's Initial Claim (log)	-0.107	0.416
	(0.236)	(0.438)
Number of Judge's and Conciliation Officer's (Per 10000 population)	-12.613*	-15.493*
	(4.011)	(7.246)
Worker's Tenure (in log days)	-0.096	-0.157
	(0.382)	(0.688)
Constants	17.789***	20.718**
	(4.701)	(8.270)
R-sqr	0.12	0.27
Number of Observations	48	99

Notes *significant at 10%, ** significant at 5%, ***significant at 1%. Robust standard errors are reported in parentheses. [a] participation dummy variable takes value of 1 if the dispute is settled in the conciliation process (for column A) and it again takes value of 1 if the dispute is resolved in the labour courts (for column B).

Table 7: Effects on Final Payments (Dependent variable- Final Payment in logs)

	Conciliation (Mandatory)	**Appeal(Non-Mandatory Conciliation)**
	(A)	(B)
Participation Dummy[a]	0.008	-0.005
	(0.131)	(0.003)
Worker's Initial Claim (log)	0.490***	1.001***
	(0.008)	(0.004)
Number of Judge's and Conciliation Officer's (Per 10000 population)	(0.957)	-0.518
	(1.738)	(0.720)
Worker's Tenure (in log days)	0.029*	0.009
	(0.143)	(0.006)
Constants	-0.253	-0.179**
	(0.179)	(0.771)
R-sqr	0.23	0.46
Number of Observations	48	99

Notes *significant at 10%, ** significant at 5%, ***significant at 1%. Robust standard errors are reported in parentheses. [a] participation dummy variable takes value of 1 if the dispute is settled in the

conciliation process (for column A) and it again takes value of 1 if the dispute is resolved in the labour courts (for column B).

Table 8: Effects on Difference in Final Payments (Dependent variable- Difference in Final Payment in logs)

	Conciliation (Mandatory)	**Appeal(Non-Mandatory Conciliation)**
	(A)	(B)
Participation Dummy[a]	-0.007	0.026
	(0.030)	(0.331)
Worker's Initial Claim (log)	1.025***	0.989***
	(0.020)	(0.025)
Number of Judge's and Conciliation Officer's (Per 10000 population)	-3.459	3.565
	(4.049)	(4.469)
Worker's Tenure (in log days)	0.054	0.006
	(0.033)	(0.040)
Constants	-2.196***	-2.318***
	(0.418)	(0.481)
R-sqr	0.89	0.91
Number of Observations	48	99

Notes *significant at 10%, ** significant at 5%, ***significant at 1%. Robust standard errors are reported in parentheses. [a] participation dummy variable takes value of 1 if the dispute is settled in the conciliation process (for column A) and it again takes value of 1 if the dispute is resolved in the labour courts (for column B).

Table 8, present the results obtained by estimating the effects of determinants of legal claims on the differences in final payments received by workers in the post reform period. Column (a) indicates that participation in conciliation reduces the differences between workers initial claim and settlement amount concluded in the negotiation process. On the other hand, disputes appeal in the labour court show a positive association between the worker's initial claim and final amount awarded in labour courts. The coefficient of estimates exhibits a predicted signs of association between participation variable with dependent variable, however, strong results cannot be interpreted for the sample of cases concluded in the post reform period.

6. Conclusion:

For the well functioning labour markets, the prevailing industrial relation system must provide efficient dispute resolution mechanism that ensures speedier disposal labour conflicts and effective settlement. Over the years, on the one hand, tradition mechanism of adjudication of labour conflicts in labour courts has become inefficient and is often blamed to reducing the welfare of overall economy. On the other hand, there is a growing demand for alternative dispute resolution system in various branches of legal system. Using a standard law and economic framework of ADR theory, this paper examine the theoretical predictions of ADR programs that aim to promote the settlement, reduction in differences obtained in final payments and most importantly, reduction case disposition time. Empirical setting of this paper is based on the data based obtained from two Indian labour courts (CGIT's) for the period 2008-2011. Results obtained from this study indicate that, at an aggregate level, cases settled in mandatory conciliation process tend to take less time than those cases appeal in the labour courts. Moreover, the study also confirms that the overall conciliation process are succeed in reducing differences in final payments received by workers and in improving their settlement rates.

The present study also take into the account a recent amendment to the industrial Dispute Act of 1947, that allows direct access to labour courts implying undermining the role of conciliation process in resolving labour conflicts. Results obtained at the disaggregate level, implies that disputes settled in the pre reform period experience reduction in total disposition time. However, the study does not find any significant effect on reduction in differences in final payments and settlement rates.

The overall finding suggests that, the role of conciliation process in the Indian labour dispute resolution system, is pivotal and it is indeed an efficient and effective method of resolving labour conflicts as compare to adjudication.

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