BOTTLENECKS OR INEFFICIENCIES: A CRITICAL ANALYSIS OF JUDICIAL EFFICIENCY AND COURT PRODUCTIVITY IN THE LOWER JUDICIARY SYSTEM OF PUNJAB

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ABSTRACT

Dispensation of judiciary should be the central objective of a nation-state as justice and rule of law are the backbone of a well-developed society. The present study focused on two major issues; firstly, to measure the efficiency of the Lower/District courts of the Punjab province. Secondly, it aims to critically highlight the bottlenecks specifically faced by these Courts facing high rate of pendency and backlogs. The analysis is based on both the secondary and primary datasets for reaching out the issues from the grassroot level and giving the policy recommendations for the speedier disposal rate. Three cities Lahore, Multan and Rawalpindi which have been found to be the most inefficient district in disposition of cases with huge caseloads, rate of institutions and pendency have been used as a sample of the study. The survey covered all court users i.e., judges, lawyers, and litigants. Almost 8300 respondents participated in the survey and the findings are presented both the graphically and in the form of SERVQUAL analysis to measure the service quality of these courts from users' perspective and highlight the areas of priority for correcting the system. Adjournments and cost of proceedings have been found the major reasons of delay in disposition of cases by all the users and training of judicial professionals and court automation is regarded as the big **'leveler'** for improving the governance of judicial system. SERVQUAL analysis showed that judicial system is less empathetic towards poor and less effective and responsive in terms of coordination between law enforcement agencies. Judges and lawyers both supported the Alternative Dispute settlement (ADR) mechanism to lessen the burden of courts and to avoid heavy cost of proceeding both in terms of monetary and time cost and also showed satisfaction with the use of the Law of arbitration.

PREFACE

The importance of a sound judicial system cannot be denied as one of the important pillars for economic development. Transparent judiciary builds the confidence and trust of investors as well as promotes efficiency of the social, economic, and political system. However, in case of developing economies, the judicial system is facing major constraints such as poor infrastructure, poor incentive systems, malpractices, lack of accountability, delays and backlogs, high costs of litigation, complex procedures, lack of judges and supporting staff vis-a-vis lack of transparency in appointments. Pakistan is also facing the same issue and its impact is visible both in domestic and international statistics that due to the fear of insecurities and delay in justice, citizens are losing faith on the integrity of the public and private policies. Congestion in courts, the cost of litigation, and delay in the disposition of cases are the major characteristics of our judiciary system. It is believed that delayed justice is denied justice, and this seems quite applicable in the case of developing economies. Inefficient Justice System provokes rent-seeking activities, social and political unrest and lawlessness among certain segments of the society due to which sometimes violent acts have become normal routines in lower income countries for pressing and challenging the writ of the State. The current study aims to highlight these kinds of anomalies in our Justice system using objective data in published reports and also survey to explore that whether the system is facing bottlenecks or it's the governance issue in the inefficient use of law. This is examined considering both the supply side (Number of Disposed Cases) and demand side (Number of new cases or new litigants) of the justice using three major districts Lahore, Multan and Rawalpindi as the sample of the study for judges, lawyers and litigants. Moreover, by undertaking a customer service quality survey SERVQUAL analysis, the study highlighted the factors affecting both the demand and supply-side of quality justice to speed-up the court processes.

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BACKGROUND AND INTRODUCTION

The importance of a sound judicial system cannot be denied as one of the important pillars for economic development. Transparent judiciary builds the confidence and trust of investors as well as promotes efficiency of the social, economic, and political system. However, in case of developing economies, the judicial system is facing major constraints such as poor infrastructure, poor incentive systems, malpractices, lack of accountability, delays and backlogs, high costs of litigation, complex procedures, lack of judges and supporting staff vis-a-vis lack of transparency in appointments. These challenges are ultimately causing socio-economic and political unrest in the country. Without a well-functioning judiciary system, it is difficult to induce public harmony and conflict resolution for creating an enabling environment towards sustained peace and security, enforcement of human rights, good governance, and economic development. Therefore, dispensation of judiciary should be the central objective of a nation-state as justice and rule of law is the backbone of well-developed society. This study focuses on two major issues; firstly, to undertake efficiency analysis of the Lower courts of Pakistan. Secondly, it aims to critically examine the bottlenecks specifically faced by the District Courts of Pakistan. The Lower courts have been taken as unit of analysis as these courts are facing the highest backlog and large caseloads (Judicial Statistics of Pakistan, Annual Report 2020). Due to long procedural delays, the pendency rate is mounting every year along with high rate of case institution resulting from absence of rule of law. Such delays also cause an increased cost of civil litigation that makes justice beyond the reach of common man with severe social implications. This court congestion also affects the quality of justice.

According to recent survey of World's Justice Report, Pakistan's rank on Rule of Law Index 2021 is alarmingly disappointing which is 130th out of 139 countries. This index is composed of eight dimensions including criminal and civil justice. Pakistan is experiencing the lowest rank of justice, freedom, accountability, and gender disparities which reflects the failure of our political, social, and economic system not only as an individual entity but also regionally and among the bracket of lower income countries.

The role of judiciary is central in not only upholding the social values but also plays an important role in economic development through enforcement of contracts, property rights, abstaining govt. officials from abuse of power and correcting the market irregularities (Sherwood 1995, Falavigna et al., 2019). New Institutionalists assert that only those economies are considered 'high performance economies' that have an enforcement of long-term contracts with lowest cost of enforcing contracts within their economic systems (North 1990, 54; Williamson 1995). Therefore, a well-functioning judiciary system is an utmost need of both developed and developing economies for running their social, political, and economic systems by reducing the burden of transaction costs. Rule of law is an important ingredient to ensure trust and confidence for reasonable business and investment environment. Adam Smith (1755), Max Weber (19th century) and Hayek (1960) were the pioneers who recognized the importance of judiciary for enforcement of rule of law which leads towards economic prosperity (Bendix 1960). Therefore, there is a need to improve the effectiveness of the court system to promote sustainable economic development. Similarly, the World Bank (2003) also provides strategic measures and agenda for enhancing 'independency' of the judiciary systems globally. Judicial corruption in appointment of judges is detrimental to the quality of justice system. The legal sector creates a supporting environment for investment, businesses, and strong financial

markets. Hence, judicial reforms help in the control of corruption activities through accountability tool (Chong & Cozzubo; 2019).

One of the main objectives of legal reforms is to make the judicial procedures, such as the initiation, preparation, enactment of law and regulation and publicizing, an easy access to common man. In addition, it also emphasizes a proper training system of the judicial staff and case management system to avoid case backlogs by incorporating the role of technology, as it may speed up the process of trial. According to World Bank's approach (2003) on judicial reform, developing countries must introduce training programs for judicial staff, resolve matters related to appointments and promotions of judicial staff and law officers, bring transparency and discipline in decision making procedures in addition to focusing on participatory role of civil society in bringing justice.

At present, courts in Pakistan are facing congestion of cases resulting from high pendency rates and such delays have become an alarming feature of our judiciary system. In the figure below, an overview of Judicial System of Pakistan is provided for the year 2020. After the implementation of National Judicial Policy 2009, it is observed that number of disposed cases has increased in 2020 in comparison to previous year's performance. However, the situation has worsened for District courts in terms of caseloads, pendency rates and delays as can be observed in the figure below i.e., the largest number of delays and non-disposal of cases fall under that district courts.

Figure 1: Case Pending Adjudication in Judiciary for the year 2022
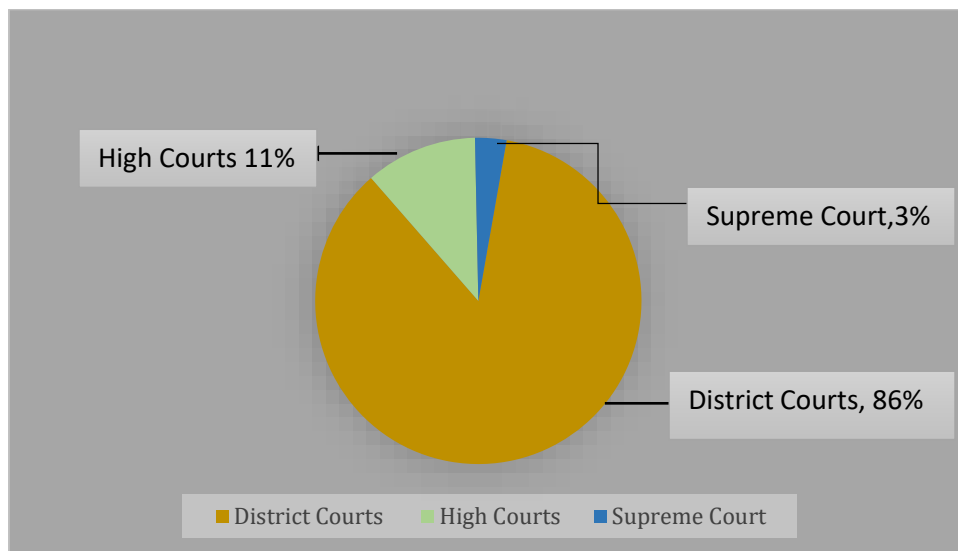
Source: Author's own extracted and calculated from the available reports

To improve the efficiency of judicial system, two important factors need to be focused upon as highlighted below:

1) "Caseload" per judge,

2) "Time" in the disposition of case.

Among many other factors, the most important reason for huge pendency in District courts is the **constrained number of judges** and lack of facilities provided to both lawyers and judges such as the **infrastructure**. Usually, it is observed that judicial staff face a poor working environment like small compact rooms, electricity shortfall and lower level of privileges and salaries. Above all, the scarcity of judges is becoming a major hindrance in providing the speedy and efficient delivery of justice in the case of district courts. Some important facts are provided in the Table below which show that

courts are highly congested, and judges are overburdened which causes an overall delay in the justice system.

Table 1: Factual Position of District Courts

Judges' strength	1 judge per 300,000 people in Pakistan	1 judge per 10,000 in developed countries
	1 judge per 62000 people in Punjab	
Clearance rate	1.9 million pending cases against 4000 judges	Low clearance rate
Case burden per judge	20,000 registered case per judge	9-10 cases worked upon per day

Source: Author's Compilation from Judicial Statistics of Pakistan Annual Report 2020 (Judicial Statistics 2020).

Nevertheless, there are many other factors which cause delay in justice other than judicial officers like police department, lawyers, and medical practitioners etc. who are directly or indirectly involved in case preparation and provision of supporting documents. Such elements are also negatively affecting the efficiency of judicial system in lower courts (Former Chief Justice of Sindh High Court Justice, 2017). There are many reasons for the observed high rate of delays but apparently the lack of judges' appointments and supporting staff are the key factors. Table 2 given below provides statistics on differences between the number of sanctioned judges and working judges among various levels and categories of courts.

Table: 2: Comparative Statistics about Strength of Judges

Types of Courts	Sanctioned Judges	Working Judges	Difference
Supreme Court	17	16	1
High Courts	60	47	13
District Courts			
Additional District & Sessions Judges	606	492	114
Senior Civil Judges	109	103	6
Sr. Civil Judge /Judicial Magistrate /Family Judges	1613	963	650
Total Difference (District Courts)	2364	1594	770

Source: Judicial Statistics of Pakistan, Annual Report 2020

The Table given above hints that District courts are facing more issues in this regard. Among the different categories, it can be clearly seen that lack of appointed judges is the most important cause of delays and court congestion. The rule of law cannot be maintained without the efficient court systems along with the relevant supporting departments. The access to Civil Justice is disappointing within Pakistan. Due to this reason, Pakistan's performance has been observed poor in the world ranking, both regionally as well as in lower-middle income group category.

Table: 3: Global Position of Pakistan in judicial system and Rule of Law

WJP Index Ranking	World ranking	Regional ranking	Lower-middle income group ranking
Civil Justice	124/139	4/6	26/35
Criminal Justice	108/139	4/6	23/35

RoL Index	130/139	5/6	30/35

The overall Rule of Law (RoL) index for Pakistan is also showing a very disappointing picture. No reasonable change in the rank and scoring of Rule of Law index has been observed since 2017. There are a total of eight (8) factors that measures this score ranging between 0-1. Pakistan's score is 0.39 since last 5 years. This is very alarming, which reflects the absence of law and bad governance in the country. Table below gives a detailed factor-wise scores and ranking of Pakistan.

Table: 4: Ranking of Pakistan using Worldwide accepted parameters for Justice System

Factors	Parameters for the evaluation of overall Justice System	World ranking	Regional ranking	Lower-middle income group ranking
Factors 1	Constraints on Government Powers	89/139	4/6	15/35
Factors 2	Absence of Corruption	123/139	5/6	28/35
Factors 3	Open Government	101/139	4/6	18/35
Factors 4	Fundamental Rights	126/139	5/6	28/35
Factors 5	Order and Security	137/139	5/6	34/35
Factors 6	Regulatory Enforcement	123/139	5/6	29/35
Factors 7	Civil Justice	124/139	4/6	26/35
Factors 8	Criminal Justice	108/139	4/6	23/35

Pakistan is facing severe issues in law-and-order situation, security, and the provision of fundamental rights. These issues call for a reform of the judiciary system for its regulation and improvement in efficiency. The tables below illustrate the factors responsible for deterioration of civil and criminal justice system in Pakistan. In case of civil justice, Pakistan is facing issues in the enforcement and impartiality of enforcement agencies. These include the Police Department, Medical Officers, and Investigation Cell. These institutions are required to be reformed on the grounds of accountability and transparency for easy access to justice.

Table: 5: Evaluation of Pakistan's Civil Justice System using WJP Rule of Law Index

Factors	Parameters for the evaluation of Civil Justice System	World ranking	Regional ranking	Lower-middle income group ranking
Factors 1	People can access and afford civil justice	131/139	5/6	32/35
Factors 2	Civil justice is free of discrimination	114/139	3/6	25/35
Factors 3	Civil justice is free of corruption	111/139	4/6	23/35
Factors 4	Civil justice is free of improper government influence	75/139	4/6	8/35
Factors 5	Civil justice is not subject to unreasonable delay	98/139	3/6	25/35
Factors 6	Civil justice is effectively enforced	125/139	6/6	30/35
Factors 7	Alternative dispute resolution mechanisms are accessible, impartial, and effective	127/139	5/6	31/35

However, the same kind of analysis is also available for criminal justice in Pakistan based on seven pillars. Below is given factor wise ranking of Pakistan not only at world level rather at regional and low middle income group wise as well.

Table: 6: Evaluation of Pakistan's Criminal Justice System using WJP Rule of Law Index

Factors	Parameters for the evaluation of Criminal Justice System	World ranking	Regional ranking	Lower-middle income group ranking
Factors 1	Criminal investigation system is effective	114/139	5/6	26/35
Factors 2	Criminal adjudication system is timely and effective	102/139	4/6	26/35
Factors 3	Correctional system is effective in reducing criminal behavior	84/139	4/6	15/35
Factors 4	Criminal system is impartial	128/139	4/6	31/35
Factors 5	Criminal system is free of corruption	110/139	4/6	21/35
Factors 6	Criminal system is free of improper government influence	59/139	2/6	3/35
Factors 7	Due process of the law and rights of the accused	130/139	5/6	29/35

Source: Extracted by the author WJP Rule of Law Index 2021

The figures show that the most important impediments in justice are the partiality issue in decision-making process and complex procedures in implementation of law. All these points highlight the need for sound judicial reforms to tackle the issues of easy access to justice and its efficient delivery. The next section provides the scope of the study based on the above discussions.

1.1. Rationale of the Study

At present, in case of developing economies both the provision of Justice and then the quality of Justice have become a main point of interest for policymakers. The major reason behind this is that due to inefficiency and ineffectiveness of these court systems, there is lack of trust and confidence of people in the public and private policies of the Government. Pakistan is also facing the same issue and its impact is visible both in domestic and international statistics that due to the fear of insecurities and delay in justice, citizens are losing faith on the integrity of the public and private policies. Congestion in courts, cost of litigation, and delay in the disposition of cases are the major characteristics of our judiciary system. It is believed that delayed justice is denied justice, and this seems quite applicable in case of developing economies. Inefficient Justice System provokes rent-seeking activities, social and political unrest, and lawlessness among certain segments of the society due to which sometimes violent acts have become normal routines in lower income countries for pressing and challenging the writ of the State. This study aims to highlight these kinds of anomalies in our Justice system using objective data in published reports and to explore that whether the system is facing bottlenecks or it's the governance issue in the inefficient use of law. For this purpose, the analysis is based on survey for finding the answer to this question. To our knowledge, quantitatively analysis of these issues is not done so far dealing the efficiency issue of the Justice System both at higher and lower level of Judiciary in Pakistan. Moreover, the available literature is qualitatively in nature not covering specifically District Courts of Punjab both in the domain of criminal and civil cases. Therefore, the main focused area of the current study is to relate number of instituted cases, resolved cases, and pendency of cases per judge, the clearance and congestion rates, time in resolving a case, the number of judges, and the cost of a case with the productivity of courts.

This study aims at measuring the efficiency of lower courts in Punjab' judiciary system considering the judges' caseloads, administrative staff, and court expenses. Following this objective, the study targets further to explore the various dimensions /parameters which are acting as bottlenecks in the district judiciary causing delay in justice and high rate of pendency of cases. Below is given the details about the objectives and hypotheses of the study.

1.2. Objectives of the Study

There are **THREE** main objectives of the study. The first one is the general and at broader level and the other is specific and exploratory analysis of District court efficiency issues in Punjab.

1. To evaluate the judicial efficiency of lower courts (District Courts) by examining its performance taking into consideration various measures of ***productivity***.

2. To explore the ***bottlenecks*** faced by the District Courts of Punjab which might be causing inefficiencies in its judicial functioning.

3. To investigate the ***'quality of judicial services'*** by focusing on the differences between perceptions of court users on perceived outcomes and actual service delivery by the judicial operators through a field survey of litigants (Customers) and lawyers (Managers) of the district courts. (*This objective will specifically focus on the evaluation of costs associated with the users of the courts both in terms of **monetary** and **time costs** during the court procedures highlighting the aspect of quality of judicial services in Lower courts).*

1.3. Hypotheses

H_1: Exogenous factors i.e. caseloads, institution of cases, and pendency, affect the court efficiency/productivity in Lower Courts.

H_2: Inefficiencies of District Courts is linked with the internal and external constituents of the court system (e.g. case flows, clearance rate, case turn over ratios, time of disposition, costs of litigation per procedure, appeal rate, number of adjournments proceeding, strikes of lawyers, Stay Orders, shortage of judges and absence of well-coordinated system between courts and law enforcement agencies.

H_3: Court users; Internal (lawyers) and External (Litigants), are not satisfied with the services provided by the district courts.

LITERATURE REVIEW

The Table given below is showing various studies measuring efficiency of Justice system in different regions of the World. Literature exists in case of developed economies but for developing economies empirical evidence is very thin and if it exists that is more of theoretical and analytical in nature. Therefore, this research aims to fill this gap by measuring efficiency of court system first using secondary available dataset and secondly an in-depth analysis will be made based on a survey for measuring the bottlenecks in Lower judiciary of Punjab. In the end the study aims to examine the quality of services provided by the system using an innovative econometric approach in the literature but not has been much applied. Few studies are available and being cited in literature review but for developed economies. Hence this research aims to measure how much the litigants are satisfied with the court delivery system.

Table: Literature Review

Study	Analysed Judicial System	Output	Input	Econometric techniques

Kumar & Singh (2022)	Indian Courts	Court Performance	Judges, Lawyers and Litigants	Efficiency Factor Analysis (EFA)
Achenchabe, Akaaboune (2021)	Moroccan courts	Cases resolved	judges; clerks and Court operating expenses	Data envelopment analysis (DEA)
Tabassam, Kamboyo,Manrio and Siddiqi (2021)	Pakistan (Relationship between number of judges at the level of district judiciary)	Resolved cases	Number of Judges	Survey based
Bełdowski, Dąbroś, Wojciechowski (2020)	Poland (Measuring court effcenicy of District Commercial Court)	Resolved cases	Judges, Caseloads	stochastic frontier analysis (SFA)
Ferro, Oubiña and Romero (2020)	Argentine Labor Courts		Caseload and Backlog	Data Envelopment Analysis efficiency frontier
Zafeer and Maqbool (2020)	Pakistan (delay in civil Justice)	Delay in Justice	Corruption, Frequent Transfer of Judges, Insufficient of Judges, Heavy backlog of cases, Non-punctuality of plaintiff and defendant, Lengthy and complicated procedure	Survey Based
Moura e Sá, Rosa, Santinha, Valente (2020)	Potugal Assessment of the quality of services in courts	Litigants (Users)	Lawyers, Magistrates, Court Officials (Service Providers)	SERQUAL Model
Falavigna, Ippoliti, and Manello (2019)	Italian courts (Civil and Criminal Justice)	Resolved cases	judges; staff; pending cases; incoming cases	Data Envelopment Analysis (DEA model)
Agrell, Mattsson, and Mansson (2019)	Sweden (First instance courts) settled criminal cases; settled civil cases	Resolved cases	judges; law clerks; other personnel; area of the court (square meters)	Data Envelopment Analysis (DEA model)
Mattsson et al (2018)	Sweden courts (criminal cases; settled civil cases 0	Resolved cases	judges; law clerks; other personnel; area of the court (square meters);	Data Envelopment Analysis (DEA model and Malmquist Index)
Ippoliti et al. (2015a), (2015b)	European Court (Civil Justice matter)	Resolved cases	judges; staff; pending cases; incoming cases;	Data Envelopment Analysis (DEA model)
Espasa & Esteller-Moré (2015)	Catalonia, (civil courts of first instance and family law cases)	Resolved cases	Congestion and Temporary judges and working staff	fixed-effect panel stochastic frontier model
Castro and Guccio (2015)	(Italian Courts)	Resolved Cases	Judges, Administrative Staff	Data

	efficiency and effectiveness of judicial systems			Envelopment Analysis (DEA model)
Ippoliti (2014)	Italian First instance courts (Civil Justice)	Resolved cases	judges; pending cases; institution of cases;	Data Envelopment Analysis (DEA model)
Ferrandino (2012)	USA Florida (Criminal, civil and family courts)	Resolved cases	judges	Data Envelopment Analysis

METHODOLOGY

The analysis is both quantitative and qualitative for targeting the objectives of the study. Below is given the detailed methodology with reference to the three hypotheses of the study. However, a brief snapshot of the complete methodology is given in a tabulated format in Appendix A.

3.1. Situational Analysis

This analysis is conducted using the secondary dataset from the published reports and websites for various case types and 36 districts of Punjab initially for the year 2021. In this section two approaches have been used; 1) Graphical Analysis, 2) Efficiency Analysis using Non- Parametric Technique Data Envelopment Analysis (DAE). This estimation is made to equip the readers that how much the existence inputs are conducive to produce justice efficiently in overall Punjab. Data on two inputs i.e. Judges and Administrative staff has been taken in this regard and two output variables have been used for measuring the efficiency. Below is given in detail the structure of the proposed technique and the estimated figures.

3.2. Data Envelopment Analysis (DAE)

For testing the first hypothesis, which is relating judicial efficiency with court productivity, Data Envelopment Analysis (DAE) is used which is a non-parametric approach for efficiency analysis. This is a technique which has been applied for evaluating the performance of various public sector institutions like health and education sector (Mitropoulos, Talias, & Mitropoulos, 2015 and Pulina, Detotto, & Paba, 2010), police departments (Drake & Simper, 2004), educational institutional and judiciary (Peyrache & Zago, 2016; Santos & Amado, 2014) as well. Using this approach, we assign a particular score to efficiency performance by setting a benchmark. This approach helps in building a deterministic and non-parametric production function comparing performance of different decision-making units which are 'courts' here in our analysis. The study has adapted ***output-oriented model*** introduced by Farrell (1957), which assumes Variable Returns to Scale (VRS) (Banker et al., 1984). Following the approach given by Ippoliti and Falavigna (2012), the scores of technical efficiencies will be calculated for each court within the sample with the help of this formula:

$$\text{(Technical Efficiency) } i = z_i, \qquad i = 1, 2, \ldots n$$

'n' represents the number of courts in the analysis and TE will be having its range between

$$1 \leq TE_i \leq +\infty.$$

Technically these TE_i scores are calculated using linear programming duality problem given (Farrell, 1957) as follows:

$$\text{Max}_{z\mu} \, Z_i$$

Subject to

$$Y_i > Y\mu$$

$$Z_i X_i < X\mu$$

$$\mu \geq 0$$

here Yi and Xi are the input and output of each Decision-making Unit respectively. Y is the matrix of inputs and X is the matrix of outputs of the sample; μ is an n ×1 vector of weights. The same model has been updated by Banker et al. (1984) who added the flavour of Variable 'Returns to Scale' with a little modification eμ= 1which is called as convexity constraint. 'e' is the row vector which differentiates between 'Technical Efficiency' and 'Scale Efficiency" with all elements equal to one in that row.

Below is given the description of variables to be used in the analysis:

Figure 2: Description of variables in DAE Model
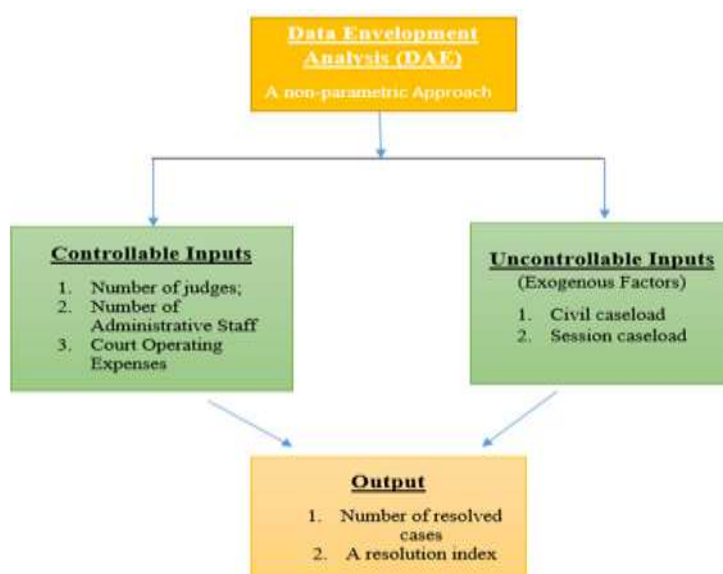
Source: Author's own

- This is the most used method in the past literature for measuring the technical/managerial efficiency of the judiciary system of any society proposed by the authors Finocchiaro & Guccio, 2015; Peyrache & Zago, 2016 in their analysis. On the other side Yeung and Azevedo (2011) have introduced an index for the measurement of efficiency both at aggregated and disaggregated level of all case matters which are dealt in different court systems. This index will help us to measure the productivity not only taking into account the 'incoming cases' only rather the workload will be measuring the total burden by adding the backlog of cases into the current year's cases.

It is defined as:

Resolution Index= (settled cases ^t_i)/ (Workload^t_i)

Here i represents the i-th judicial district considered at year(s) t. on the other side, workload is measured by using the formula (Yeung & Azevedo, 2011): pending cases at the beginning of the year and institution of cases during the year, then normalized by 100. This index is innovative in its approach in a way that it does not take into account in denominator the 'incoming/newly instituted cases' which highlights only 'flow of justice' (demand for justice) ignoring the 'backlog' which affects

actually the supply of justice and determines the efficiency of the judges in the dispensation of justice. Below is given the detailed structure of models which have been used in the study for testing the hypothesis 1:

Table: 7: Classification of Models

Variables	Model A	Model B	Model C	Model D
Inputs				
Judges	♦	♦	♦	♦
Admin Staff	♦	♦	♦	♦
Uncontrollable inputs				
Caseload Civil		♦		♦
Caseload Session			♦	♦
Outputs				
1. Settled cases & 2. Resolution index	♦	♦	♦	♦

Model A is the baseline model of the study where the court's efficiency is measured on a pooled data set using DEA technique. However, in next models (B, C, D), an addition of non-discretionary input has also been made following the one stage model given Banker and Morey (1986a). This modification of the model is made to differentiate between managerial efficiency/inefficiency due to non-discretionary caseload in various district courts.

THE STRUCTURE OF DISTRICT COURT SYSTEM OF PAKISTAN.

This section is designed to depict the Judicial performance of province Punjab considering various aspects. The purpose is to dig out the areas where the issues are lying and the responsible internal and external factors which have caused these problems in the system. The figure given below is self-explanatory in its nature that how the courts at district level in Punjab are congested in terms of civil cases compared to criminal ones. And the intensity of this imbalance can be observed from their percentage share in the overall pendency. Moreover, a drastic difference between civil and criminal cases can also be visualized from this figure in every year both in terms of case disposal and pendency. The rate of case disposal is quite low comparing to criminal cases and this is the reason the pendency of civil cases is accumulating each year.
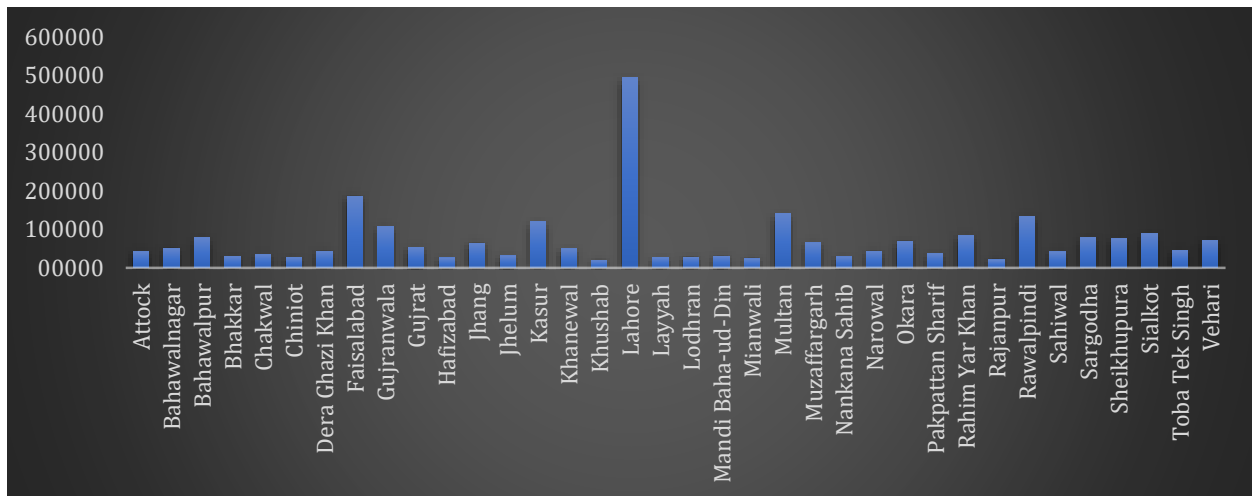
Figure 3: Yearly Comparison between Civil and Criminal Cases
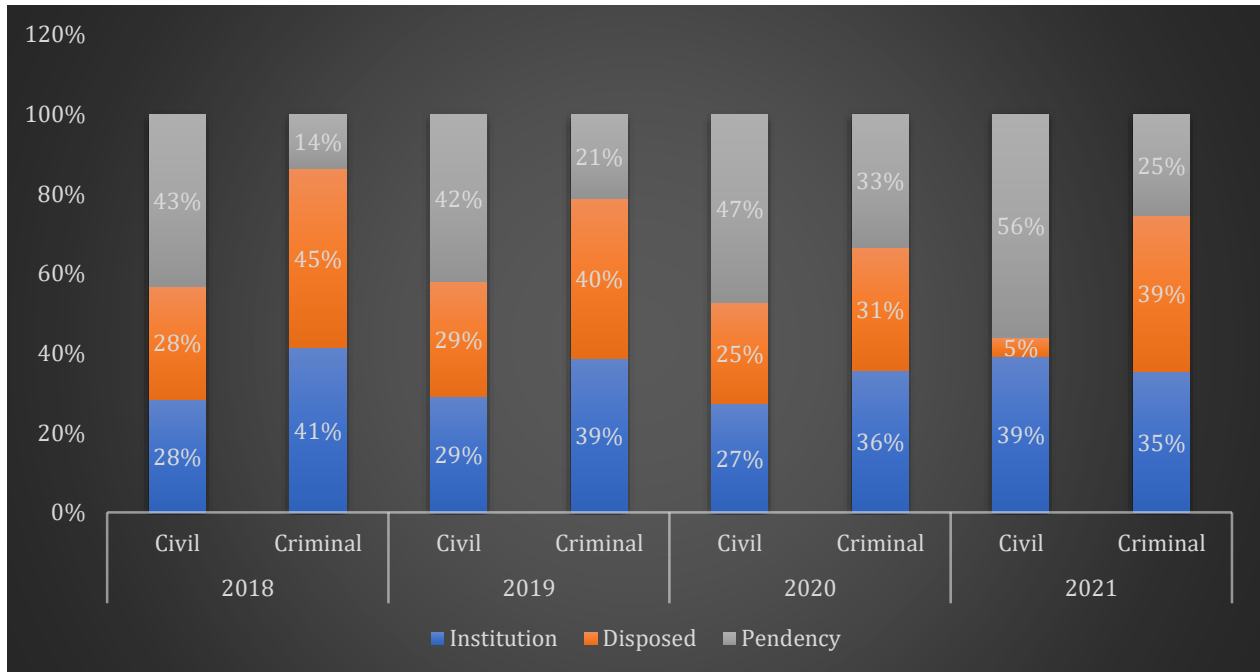
Source: Author's own using dataset from High Court Lahore

Below the given figure 4 is further trashing this pendency problem more deeper at district wise in Punjab. The figure is truly depicting the most affected districts I.e. Lahore, Faisalabad, Multan and Rawalpindi. Keeping in view this scenario, the curent study planned to choose these over burdened cities for survey to know about the reasons of poor court performance in these areas.

Figure 4. District wise Pendency of Cases in Punjab 2021

Source: Author's own using dataset from High Court Lahore

Figure 5 gives visualization of comparison between civil and session courts for both case matters i.e. civil and criminal. From here this is quite clear that session courts are performing better in terms of productivity as compared to civil courts for both types of cases i.e. civil and criminal.

Figure 5. Comparison between Civil and Session Courts considering Pendency, Disposal, and Institution

Figure 6 is highlighting a very important phenomenon i.e., the disposition time[1] for the different case matters in the most congested districts of Punjab. And from this representation, it can be observed that for civil matters, the disposition time is very high while comparing this to criminal cases.

Figure 6. District wise Disposition Time of Civil and Criminal Cases

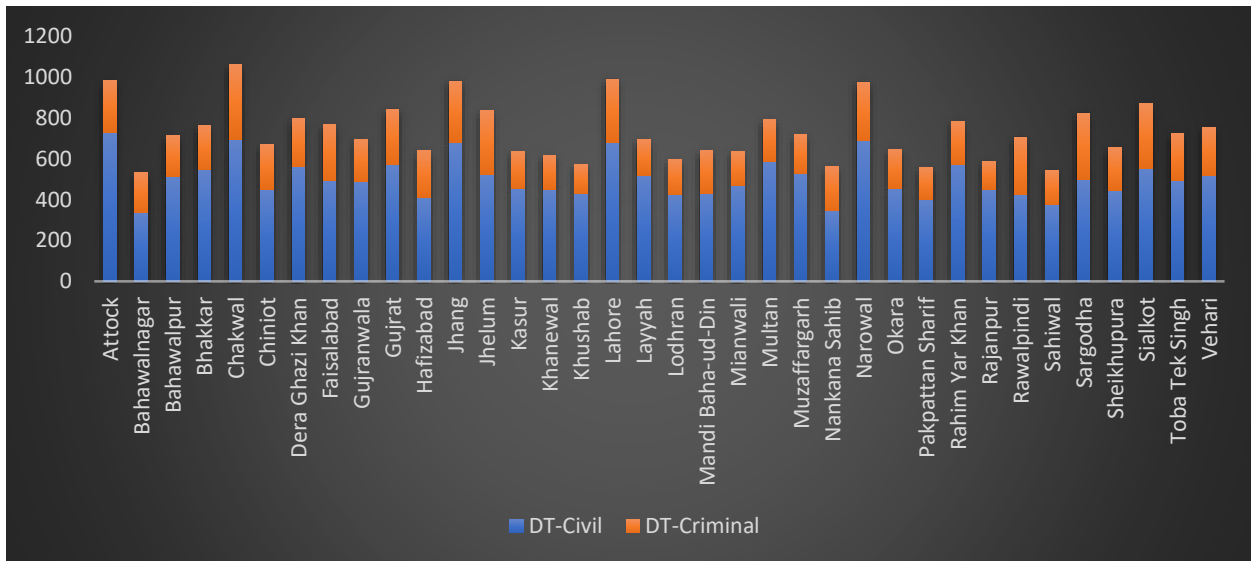Figure 7 shows the same issue of disposition/clearance time in various case types. And we can see from here that civil cases are dramatically consuming more time comparing to other case matter. Bail applications are the most efficient case type having time in days.

Figure 7: Case wise Disposition Time of cases in Punjab Districts

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[1] This is calculated following the formula: Disposition Time= (Total Pendency/Disposal) * 365
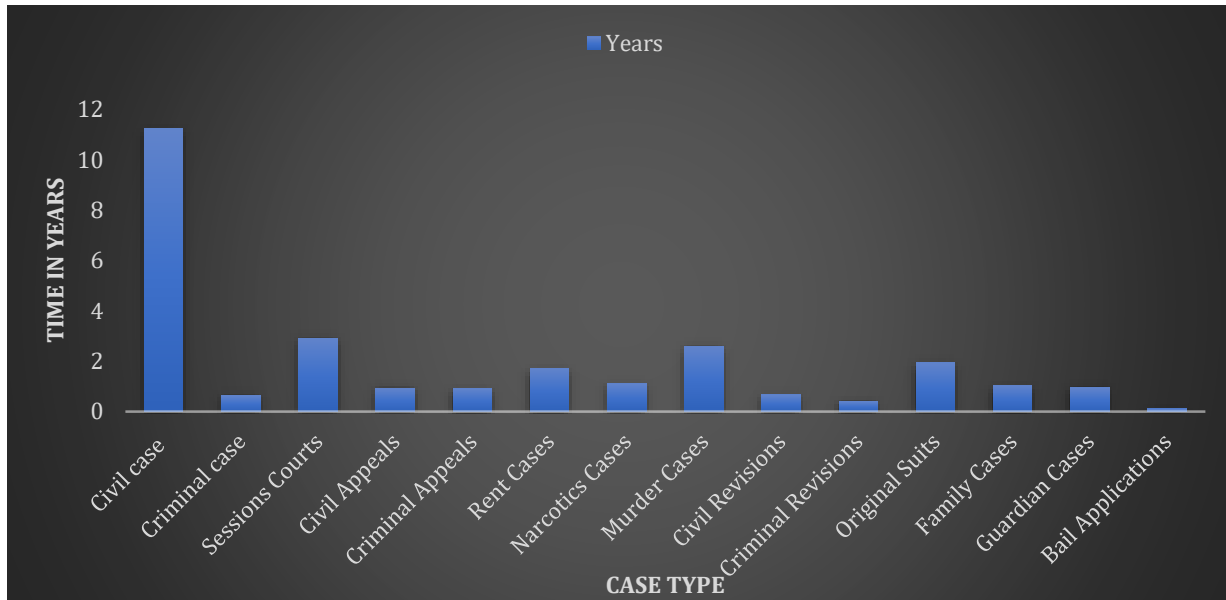
Figure 8 is the outcome after the calculation of resolution index[2] given above in the methodology section. From here it is deduced that for Lahore the problem of low judicial productivity is very acute. And the lowest resolution index is found for civil cases i.e., blue part of the bars. While the orange part of the bars is greater in size than the blue one showing the inefficiency of civil courts in increasing their turnover. Hence this fosters the need to ponder into this situation for the solution of such a crucial issue we are facing presently.

Figure 8. Resolution Index for Civil and Criminal Cases
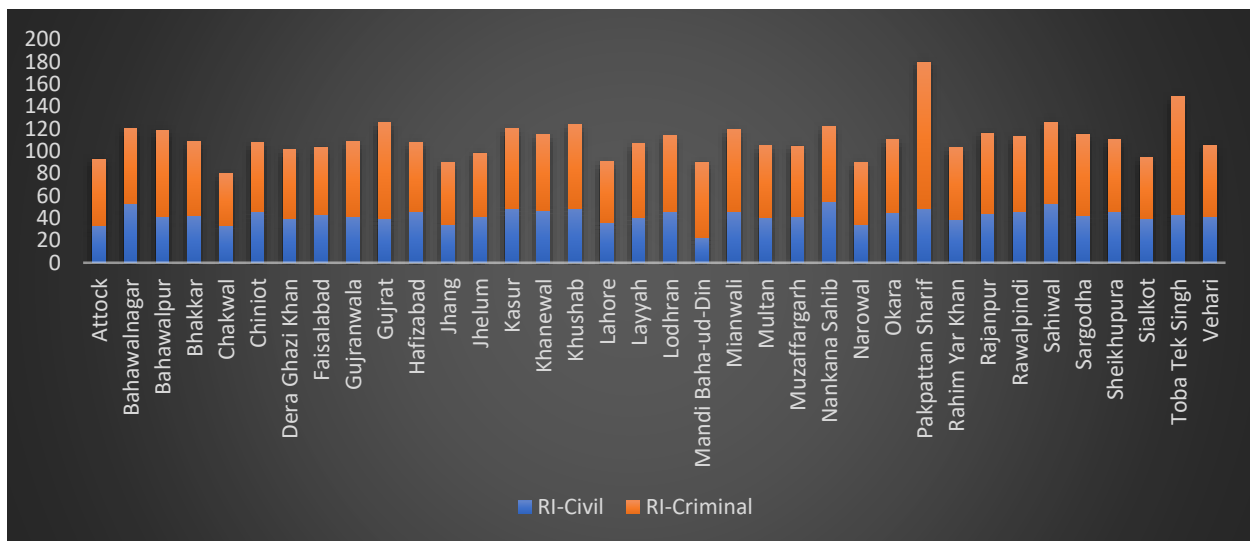
Now the same analysis is attempted four most congested nations with respect to various case types and again this is quite clear that civil case is having lesser resolution incidences in all these four cities comparing to other types of cases being instituted in district courts. Courts are highly efficient in case of Bail applications, Criminal Revisions, Rent cases and criminal cases.

Figure 9. Resolution Index Mostly Congested Cities

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[2] Resolution Index: Total Settled cases/Workload
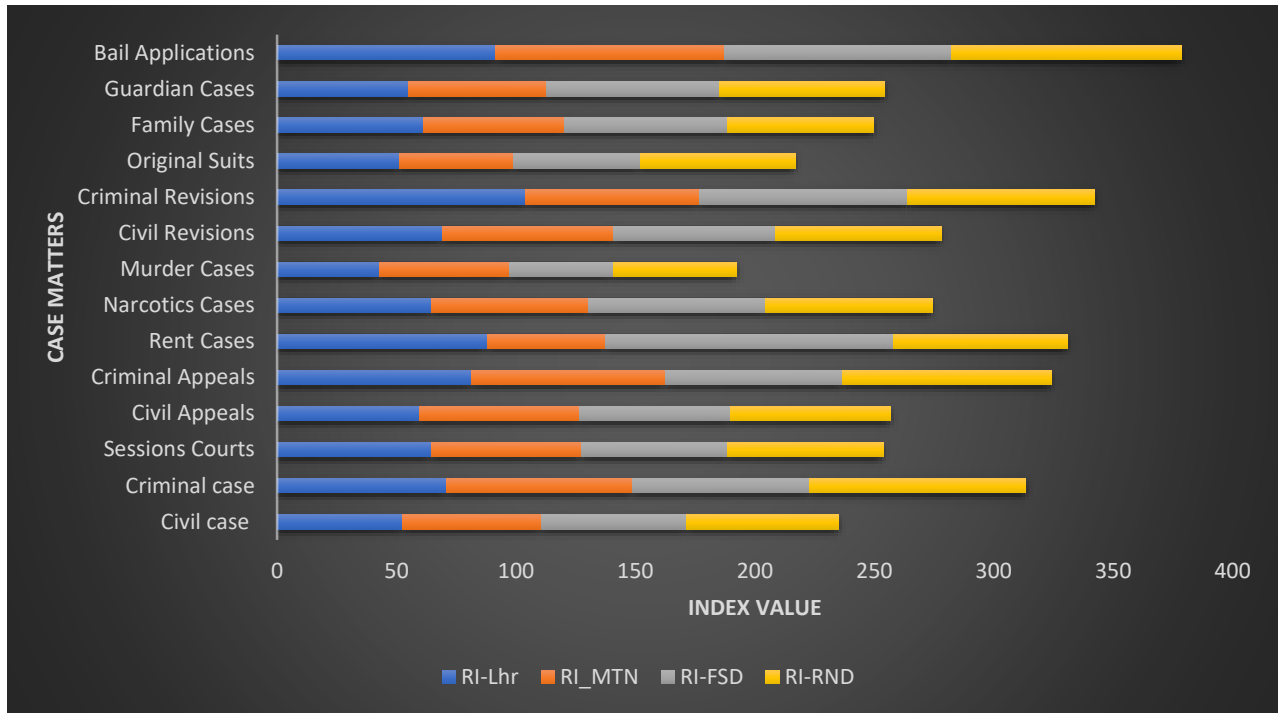
Figure 10 shows the caseload situation with respect to case type four highly congested four districts mentioned above. And from here too, we can observe the tallest bar for civil cases following the criminal cases. In both ways, District courts in Lahore seem to have more troubling and alarming situation[3].

Figure 10. Case Matters Caselaods in most congested districts

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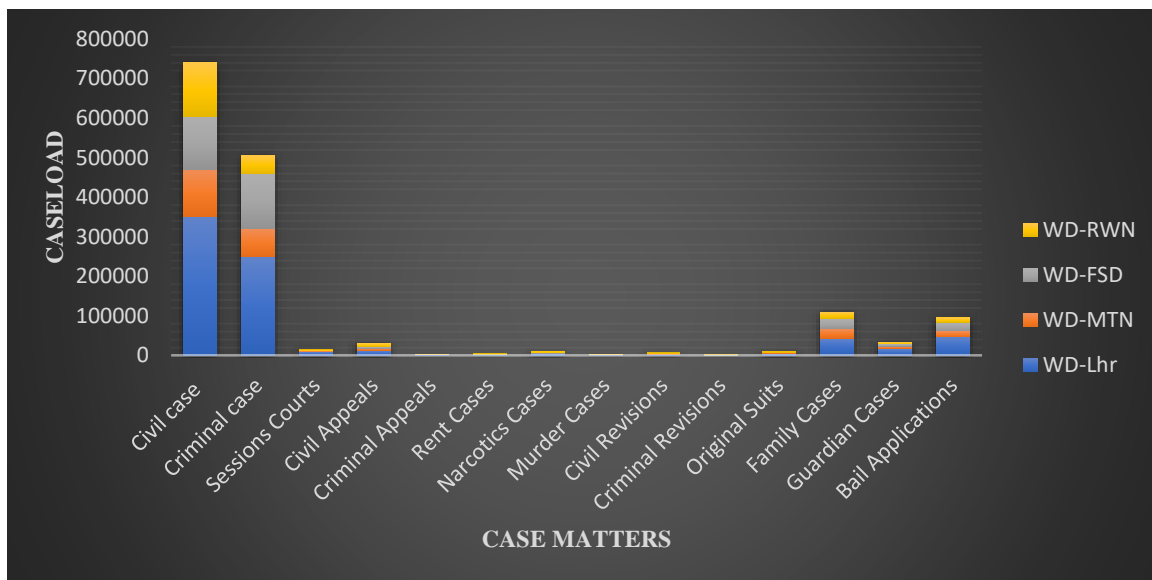
[3] The separate graphical analysis is given in appendix for district Lahore, Multan, Faisalabad and Rawalpindi.

CALCULATION OF INDICES MEASURING EFFICIENCY OF DISTRICT COURTS

In this section, we have calculated various indices for measuring the efficiency of the court system. One is Case per judge indicator (CPJ)an which shows the allocation of cases per judge district wise just to detect the judges productivity. This is calculated using the following formula given below.

- **Case per judge (CPJ indicator): Number of cases of a particular type per judge in the given period.**

Figure 11. District Wise Civil and Criminal Cases Per Judge
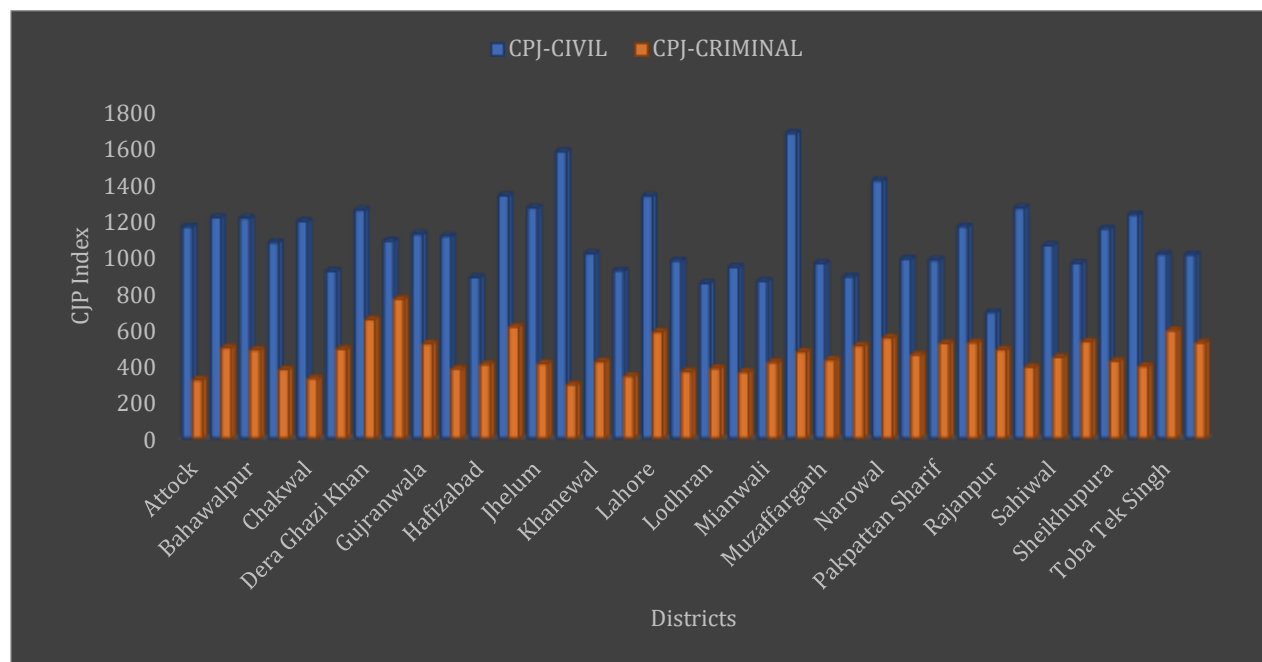
Figure 11 shows that judges in each district have been assigned more civil cases as compared to criminal cases. This burden is highly uneven in the case of Multan, This shows the shortage of judges there that's why more burden is transferred to the existing number of judges which is resulting lower productivity. The other indicator is backlog resolution index. This is calculated using the formula given below.

Backlog resolution (BR indicator): This indicator is used to measure the time needed to resolve the total backlog in months or days, calculated as the relationship between the number of cases and the clearance time.

Figure 12. Districtwise Backlog Resolution for Civil and Criminal Cases

Legend: ■ BR-Civil ■ BR-Criminal
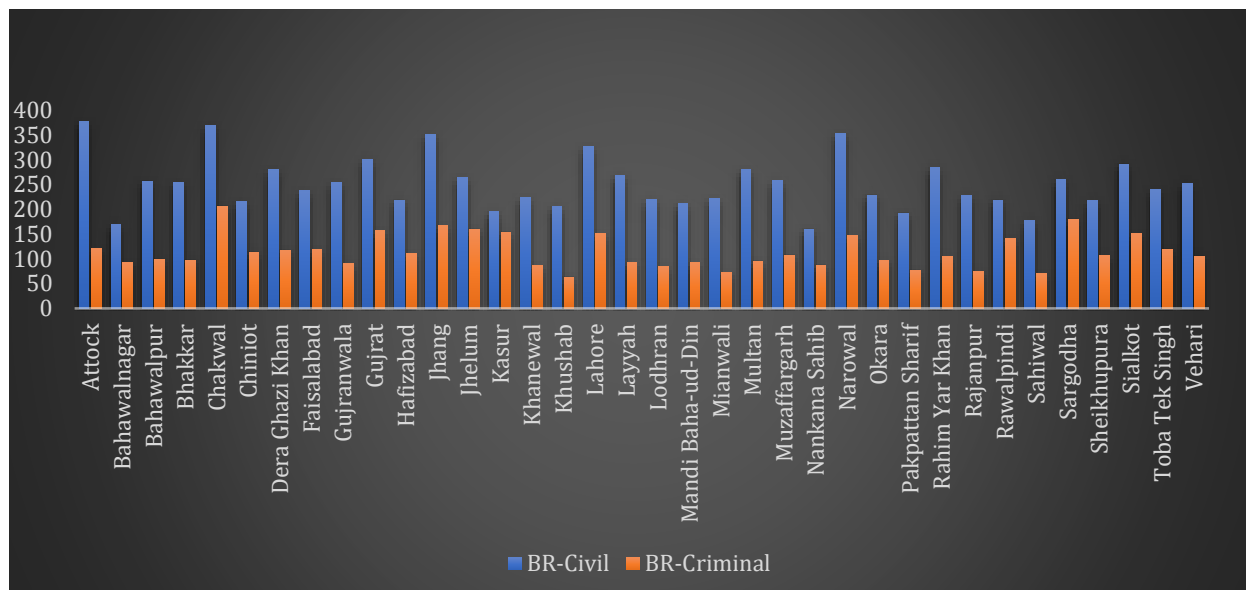
NON-PARAMETRIC ESTIMATION USING DATA ENVELOP ANALYSIS (DEA)

This section is now using a non-parametric technique for the measurement of efficiency estimates for the year 2020-21 for all districts of Punjab. Below is given the detailed estimates of all 36 districts showing three types of efficiency estimates i.e., pure efficiency[4], technical efficiency[5], and scale efficiency[6] so that we could know whether it's the size of existing courts which are causing this issue of low productivity or the in efficiency of the existing resources which is not letting the demand and supply of justice equal in the province. Ranks of each district have also been calculated. OTE stands for overall technical efficiency, PTE stands for Pure technical efficiency and SIE shows the Scale efficiency of each district. DEA provides efficiency scores under different orientations and assumptions of returns-to-scale (RTS). Scale efficiency is measured in two forms, increasing returns to scale (IRS) and decreasing returns to scale (DRS). Two Proxies of Judicial output have been used as discussed in methodology section.

Table 8 uses 'Disposal Rate' as the output for this estimation. IRS = increasing returns to scale, DRS= Decreasing returns to scale, and the dashed boxes are showing that these districts are fully efficient in their productivity.

Table 8. Overall Technical Efficiency, Pure Efficiency, Technical Efficiency and Scale Efficiency Scores of District Courts Punjab using Disposal Rate as Output

	OTE	%OTIE	PTE	%PTIE	SE	%SIE	RTS	Rank
Attock	0.562	43.8	0.700	30	0.803	19.7	IRS	35
Bahawalnagar	1.000	0	1.000	0	1.000	0	-	1
Bahawalpur	0.857	14.3	0.876	12.4	0.979	2.1	DRS	11
Bhakkar	0.666	33.4	0.694	30.6	0.960	4	IRS	32

---

[4] OTE measure helps to determine inefficiency due to the input/output configuration as well as the size of operations. In DEA, OTE measure has been decomposed into two mutually exclusive and non-additive components: pure technical efficiency (PTE) and scale efficiency (SE).

[5] The PTE measure is obtained by estimating the efficient frontier under the assumption of variable returns-to-scale. Thus, PTE measure has been used as an index to capture managerial performance.

[6] The measure of SE provides the ability of the management to choose the optimum size of resources.

District								
Chakwal	0.492	50.8	0.560	44	0.879	12.1	IRS	36
Chiniot	0.757	24.3	0.793	20.7	0.954	4.6	IRS	21
Dera Ghazi Khan	0.830	17	0.881	11.9	0.942	5.8	IRS	15
Faisalabad	0.915	8.5	1.000	0	0.915	8.5	DRS	5
Gujranwala	0.882	11.8	0.930	7	0.948	5.2	DRS	7
Gujrat	0.604	39.6	0.606	39.4	0.998	0.2	DRS	34
Hafizabad	0.711	28.9	0.750	25	0.948	5.2	IRS	26
Jhang	0.678	32.2	0.680	32	0.997	0.3	DRS	30
Jhelum	0.694	30.6	0.834	16.6	0.833	16.7	IRS	28
Kasur	1.000	0	1.000	0	1.000	0		1
Khanewal	0.845	15.5	0.849	15.1	0.996	0.4	DRS	13
Khushab	0.822	17.8	1.000	0	0.822	17.8	IRS	16
Lahore	0.721	27.9	1.000	0	0.721	27.9	DRS	24
Layyah	0.732	26.8	0.772	22.8	0.949	5.1	IRS	23
Lodhran	0.757	24.3	0.777	22.3	0.975	2.5	IRS	21
Mandi Baha-ud-Din	0.707	29.3	0.726	27.4	0.974	2.6	IRS	27
Mianwali	0.767	23.3	0.820	18	0.935	6.5	IRS	20
Multan	0.878	12.2	0.981	1.9	0.895	10.5	DRS	8
Muzaffargarh	0.718	28.2	0.740	26	0.970	3	DRS	25
Nankana Sahib	0.813	18.7	0.893	10.7	0.910	9	IRS	17
Narowal	0.689	31.1	0.712	28.8	0.968	3.2	IRS	29
Okara	0.847	15.3	0.850	15	0.996	0.4	DRS	12
Pakpattan Sharif	1.000	0	1.000	0	1.000	0	-	1
Rahim Yar Khan	0.812	18.8	0.836	16.4	0.972	2.8	DRS	18
Rajanpur	0.933	6.7	1.000	0	0.933	6.7	IRS	4
Rawalpindi	0.839	16.1	0.900	10	0.932	6.8	DRS	14
Sahiwal	0.895	10.5	0.911	8.9	0.983	1.7	IRS	6
Sargodha	0.667	33.3	0.673	32.7	0.992	0.8	DRS	31
Sheikhupura	0.860	14	0.863	13.7	0.997	0.3	DRS	10
Sialkot	0.653	34.7	0.660	34	0.989	1.1	DRS	33
Toba Tek Singh	0.864	13.6	0.890	11	0.971	2.9	IRS	9
Vehari	0.768		0.773		0.994		DRS	19
Average	**0.784**		**0.831**		**0.945**			

The results show that the districts Kasur, Pakpatan Sharif and Bahawalnagar are efficient in their court performance but as being mentioned above that while using this approach of output, we are ignoring the supply side of the justice that takes into consideration the backlog of the judges a well. Keeping in view this concern, the same Model has been applied with different output variables i.e., Resolution index. Recently authors have shown their concern for the first output variable i.e., disposal rate that it is only containing the demand side of justice however if resolution index is used as output variable, then it also adds the supply element as well into itself. And the justification for following this proxy is to that for the market to be in equilibrium, both demand and supply forces must play freely in the system. Here in this Table 9, the estimates therefore show the real picture, and we can

see here that when supply side of justice is also added into the calculation, then the estimates are reduced and none of the district s observed working in increasing returns to scale. The estimates of the targeted four districts are the lowest ones among 36 districts 'estimates. And a visible change in ranks is also observed.

Table 9: Overall Technical Efficiency, Pure Efficiency, Technical Efficiency and Scale Efficiency Scores of District Courts Punjab using Resolution Index as Output

	OTE	OTIE (%)	PTE	%PTIE	SE	%SIE	RTS	Rank
Attock	0.515	48.5	0.617	38.3	0.834	16.6	DRS	16
Bahawalnagar	0.520	48	0.759	24.1	0.685	31.5	DRS	15
Bahawalpur	0.312	68.8	0.714	28.6	0.437	56.3	DRS	26
Bhakkar	0.651	34.9	0.756	24.4	0.861	13.9	DRS	11
Chakwal	0.492	50.8	0.567	43.3	0.867	13.3	DRS	18
Chiniot	0.712	28.8	0.790	21	0.901	9.9	DRS	6
Dera Ghazi Khan	0.580	42	0.683	31.7	0.850	15	DRS	14
Faisalabad	0.140	86	0.673	32.7	0.209	79.1	DRS	35
Gujranwala	0.216	78.4	0.683	31.7	0.316	68.4	DRS	32
Gujrat	0.381	61.9	0.668	33.2	0.571	42.9	DRS	20
Hafizabad	0.697	30.3	0.795	20.5	0.877	12.3	DRS	8
Jhang	0.348	65.2	0.559	44.1	0.623	37.7	DRS	22
Jhelum	0.709	29.1	0.750	25	0.945	5.5	DRS	7
Kasur	0.314	68.6	0.708	29.2	0.443	55.7	DRS	25
Khanewal	0.430	57	0.733	26.7	0.587	41.3	DRS	19
Khushab	1.000	0	1.000	0	1.000	0	----	1
Lahore	0.051	94.9	0.565	43.5	0.090	91	DRS	36
Layyah	0.666	33.4	0.779	22.1	0.855	14.5	DRS	10
Lodhran	0.648	35.2	0.787	21.3	0.824	17.6	DRS	12
Mandi Baha-ud-Din	0.356	64.4	0.449	55.1	0.793	20.7	DRS	21
Mianwali	0.826	17.4	0.896	10.4	0.922	7.8	DRS	3
Multan	0.197	80.3	0.632	36.8	0.311	68.9	DRS	34
Muzaffargarh	0.292	70.8	0.668	33.2	0.437	56.3	DRS	29
Nankana Sahib	0.769	23.1	0.871	12.9	0.882	11.8	DRS	5
Narowal	0.512	48.8	0.592	40.8	0.865	13.5	DRS	17
Okara	0.320	68	0.702	29.8	0.456	54.4	DRS	23
Pakpattan Sharif	0.822	17.8	1.000	0	0.822	17.8	DRS	4
Rahim Yar Khan	0.267	73.3	0.651	34.9	0.411	58.9	DRS	30
Rajanpur	0.908	9.2	0.970	3	0.936	6.4	DRS	2
Rawalpindi	0.210	79	0.670	33	0.314	68.6	DRS	33
Sahiwal	0.587	41.3	0.799	20.1	0.734	26.6	DRS	13
Sargodha	0.298	70.2	0.685	31.5	0.435	56.5	DRS	28
Sheikhupura	0.320	68	0.689	31.1	0.465	53.5	DRS	23

Sialkot	0.244	75.6	0.575	42.5	0.424	57.6	DRS	31
Toba Tek Singh	0.684	31.6	0.899	10.1	0.760	24	DRS	9
Vehari	0.303	69.7	0.673	32.7	0.451	54.9	DRS	27
Average	**0.480**		**0.722**		**0.644**			

From these estimates, we can see that now the status of each district has changed. The colored bar shows the intensity of the problem. Red color shows inefficient districts while green is showing better performers in the field.

Table 10 now reports the descriptive statistics of these estimates using both output measures. Here we can see from these figures that how much the estimates were overestimated with the Disposal rate as the output variable. Average efficiencies are also differing significantly which authenticates the efficiency estimates with the use of Resolution index.

Table 10. Summary statistics for DEA efficiency scores (Disposal Rate)

Statistics	CCR efficiency	BCC efficiency	Scale efficiency
Average Efficiency Mean	0.784	0.83	0.94
Maximum	1	1	1
Minimum	0.492	0.56	0.72
Standard Deviation	0.12	0.124	0.06
Average Inefficiency %	21.6	17	6
interval	(0.664, 0.904)	(0.71, 0.95)	(0.88, 1)
Summary statistics for DEA efficiency scores (RI)			
Summary statistics for DEA efficiency scores (Resolution Index)			
Average Efficiency Mean	0.51	0.65	0.74
Maximum	1	1	1
Minimum	0.057	0.334	0.11
Standard Deviation	0.26	0.15	0.25
Average Inefficiency %	49%	35%	26%
interval	(0.25, 0.76)	(0.5, 0.8)	(0.49, 0.99)
Note: AOTE: Average overall technical efficiency, interval: AOTE-SD, AOTE+SD)			
Source: Authors Calculation			

Note: AOTE: Average overall technical efficiency, interval: AOTE-SD, AOTE+SD)
Source: Authors Calculation.

Table 11 shows the reports the summary statistics on the basis of efficient or inefficient district again using the measures of output. In the case of Disposal rate as output measure, the number of efficient districts is 3 while the same for resolution index is 1. Average inefficiency of districts is increased in the later case from 22% to 49 % after deflating the former estimates using supply side measure of output.

Table 11: Descriptive Statistics of Efficiency Estimates using Disposal as Output

Statistics	All districts	Efficient Districts	Inefficient Districts
N	36	3	33
Average efficiency	0.784	1.000	0.76
SD	1	1.000	0.11

Minimum	0.492	1.000	0.492
Maximum	0.12	1.000	0.933
Average Inefficiency (%)	21.6%	0%	24%
Interval	(0.664, 0.904)	(1.000,1000)	(0.65, 0.87)
Descriptive Statistics of Efficiency Estimates using Resolution Index as Output			
N	36	1	35
Average efficiency	0.51	1.000	0.47
SD	1	1.000	0.22
Minimum	0.057	1.000	0.051
Maximum	0.26	1.000	0.908
Average Inefficiency (%)	49%	0%	53%
Interval	(0.25, 0.76)	(1.000,1000)	(0.25, 0.69)

Note: AOTE: Average overall technical efficiency, interval: AOTE-SD, AOTE+SD)
Source: Authors Calculation

Now in Tale 12, classification of districts on the basis of inefficiency is made using quartile measures. The details about this is provided in the Table for illustration.

Table 12: Classification of Inefficient Districts

Most inefficient Districts	Below Average Districts	Above Average Districts	Marginally Inefficient Districts
Lahore (35)	Bahawalpur (25)	Attock (15)	Chiniot (5)
Faisalabad (34)	Gujrat (19)	Bahawalnagar (14)	Hafizabad (7)
Multan (33)	Jhang (21)	Bhakkar (10)	Jhelum (6)
Rawalpindi (32)	Kasur (24)	Chakwal (17)	Layyah (9)
Gujranwala (31)	Khanewal (18)	Dera Ghazi Khan (13)	Mianwali (2)
Sialkot (30)	Mandi Baha-ud-Din (20)	Lodhran (11)	Nankana Sahib (4)
Muzaffargarh (28)	Okara (22)	Narowal (16)	Pakpattan Sharif (3)
Rahim Yar Khan (29)	Sheikhupura (22)	Sahiwal (12)	Rajanpur (1)
Sargodha (27)	Vehari (26)		Toba Tek Singh (8)
Note: Below Q1= 'Most Inefficient category' Districts Between Q1- Q2= 'Below Average Category' Districts Between Median – Q3= 'Above Average Category' Districts Above the Q3= Marginally inefficient Districts Q1= 0.30, Q2 (Median)= 0.43, Q3= 0.687 Ranks in parentheses (inefficiency wise, districts having 1 value are excluded)			

Source: Author's Calculation

6.1 Estimation of Model B, C, D

Now in this section after the estimation of efficiency estimates usin two inputs i.e. judges, and Supporting Staff, now the rest of three models are estimated here. These are the models where exogenous (external) factors are considered for estimating their impact on judicial productivity other than internal inputs. Three exogenous factors have been: 1) caseloads, 2) pendency, and 3) institution. Table 14 incorporates the role of caseloads as an uncontrollable variable and comparing the results of Model 2, 3, 4 with Model 1, we can see that efficiency scores decline drastically. This shows that other than internal factors, external indicators are also having their influence on Court's efficiency.

Table 13: Summary statistics for DEA efficiency scores taking caseloads as exogenous factor (Four Models)

Models	Statistics	CCR efficiency	BCC efficiency	Scale efficiency
Model 1	Average Efficiency Mean	0.51	0.65	0.74
Model 2 Criminal as exogenous factor	Average Efficiency Mean	0.316	0.503	0.530
Model 3 Civil as exogenous factor	Average Efficiency Mean	0.272	0.483	0.448
Model 4 Criminal & Civil as exogenous factors	Average Efficiency Mean	0.339	0.505	0.557

Table 14 shows the correlation between various models using different proxies of output variable. In both cases, higher correlation is observed but we can see that in case of model, the correlation is deflated because its controlling for the supply side factor as well and this has eliminated the overly estimated figures from model. Hence this can be concluded that there is a higher degree of correlation between the two measures of efficiency. The residual correlation estimates and graphs of four models for two measures of efficiencies i.e., technical efficiency and scale efficiency is given in Appendix E.

Table 14: Spearman Rank Correlation test

Model Type with Disposal as output		
	CRS	VRS
CRS	1.000	0.8878*
VRS	0.8878*	1.00
Model Type with RI as output		
	CRS	VRS
CRS	1.000	0.7538*
VRS	0.7538*	1.000

Following the Table 14 below is given the analysis using Pendency as the exogenous factor affecting the court's performance. And from here again this is visible that efficiency estimates in Model 2,3,4 have been reduced compared to Model 1.

Table 15: Summary statistics for DEA efficiency scores taking Overall pendency as exogenous factor (Four Models)

Models	Statistics	CCR efficiency	BCC efficiency	Scale efficiency
Model 1	Average Efficiency Mean	0.51	0.65	0.74
Model 2 Criminal as exogenous factor	Average Efficiency Mean	0.242	0.480	0.414
Model 3 Civil as exogenous factor	Average Efficiency Mean	0.266	0.483	0.438

Model 4 Criminal & Civil as exogenous factors	Average Efficiency Mean	0.229	0.480	0.421

The residual correlation estimates and graphs of four models for two measures of efficiencies i.e. technical efficiency and scale efficiency is given in Appendix F.

In Table 16, the same process is repeated for four Models using case Institution as the exogenous factor and in the same fashion, we can see that efficiency estimates have reduced comparing to original Model 1 but interesting fact is this that in case of this external factor, these reduced more as compared to pendency and caseloads.

Table 16: Summary statistics for DEA efficiency scores taking Institution as exogenous factor (Four Models)

Models	Statistics	CCR efficiency	BCC efficiency	Scale efficiency
Model 1	Average Efficiency Mean	0.51	0.65	0.74
Model 2 Criminal as exogenous factor	Average Efficiency Mean	0.287	0.483	0.478
Model 3 Civil as exogenous factor	Average Efficiency Mean	**0.028**	0.525	0.028
Model 4 Criminal & Civil as exogenous factors	Average Efficiency Mean	0.319	0.480	0.554

The residual correlation estimates and graphs of four models for two measures of efficiencies i.e., technical efficiency and scale efficiency are given in Appendix G.

7. SURVEY BASED ANALYSIS

After the situational analysis in depth, now this section of the report is carrying the results based on survey from lawyers and litigants. This is covering the second hypothesis of the study that we aim to find the bottlenecks both internal and external in the judicial system at district level. For this purpose we planned to work on three districts which are intensly congested in Punjab based on the efficiency estimates calculated using reolution index. These districts include. 1: Lahore, 2: Multan, and 3: Rawalpindi. For the selection of samples, '***Proportional sampling technique'*** has been used. Following this, the sample for these three court users (Litigants, Lawyers, and judges) has been drawn from their total population in each case of respondent[7]. The information about this is presented below using Map of Punjab highlighting the districts which have been surveyed. The descriptive statistics showing the demographic details about sample is given in Appendix H.

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[7] The detailed tabulated information about drawing of sample is given in Appendix I.
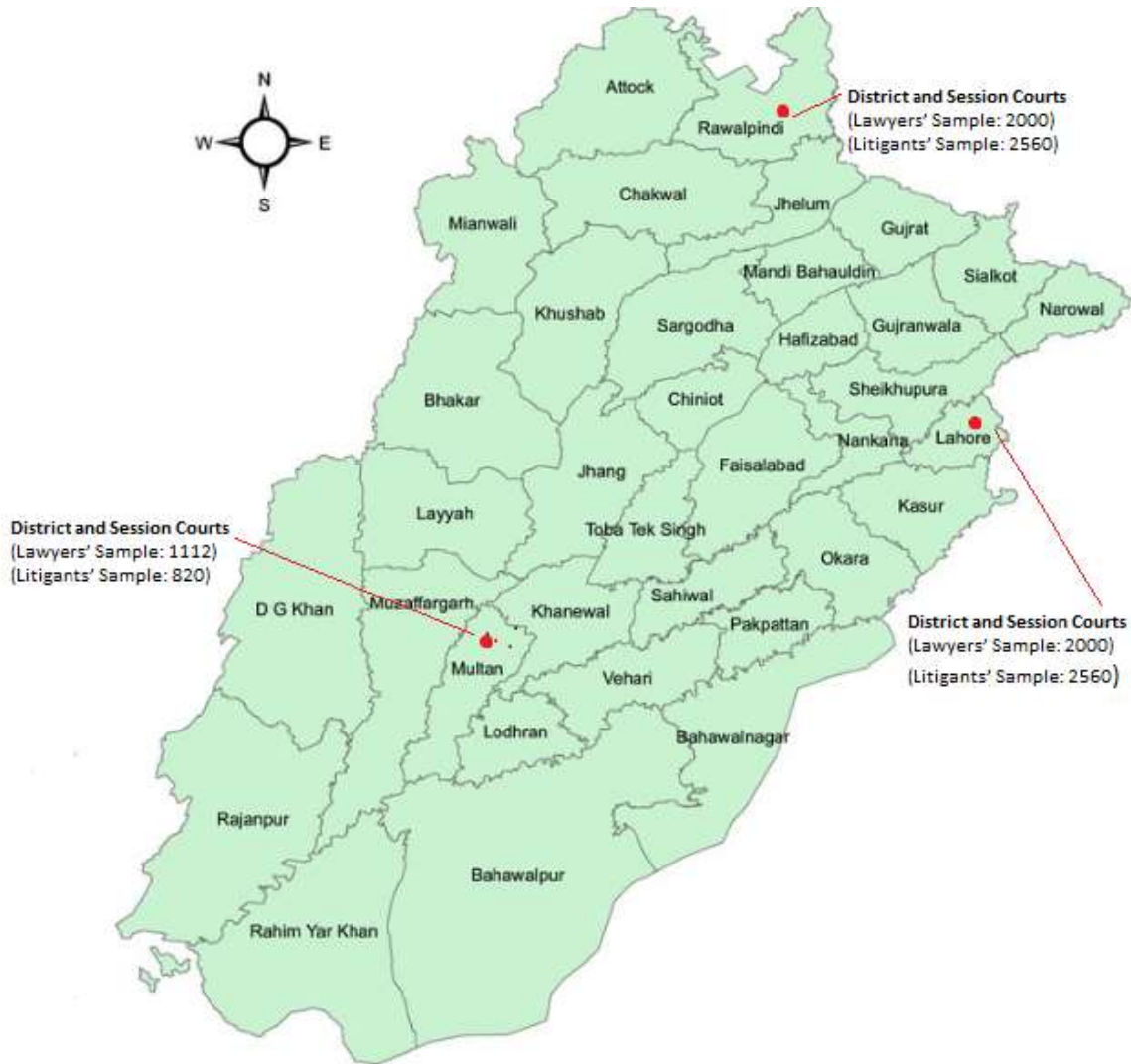
Source: Author's own

7.1 Parameters for the Evaluation of Court Performance

Below is given a list of parameters which have been designed by judicial bodies and are used as a benchmark for the evaluation of the system[8]. Each of them falls under various dimensions to observe where the actual issue lies.

- Availability of infrastructure
- Adjournments and delayed hearings
- Fairness of the system
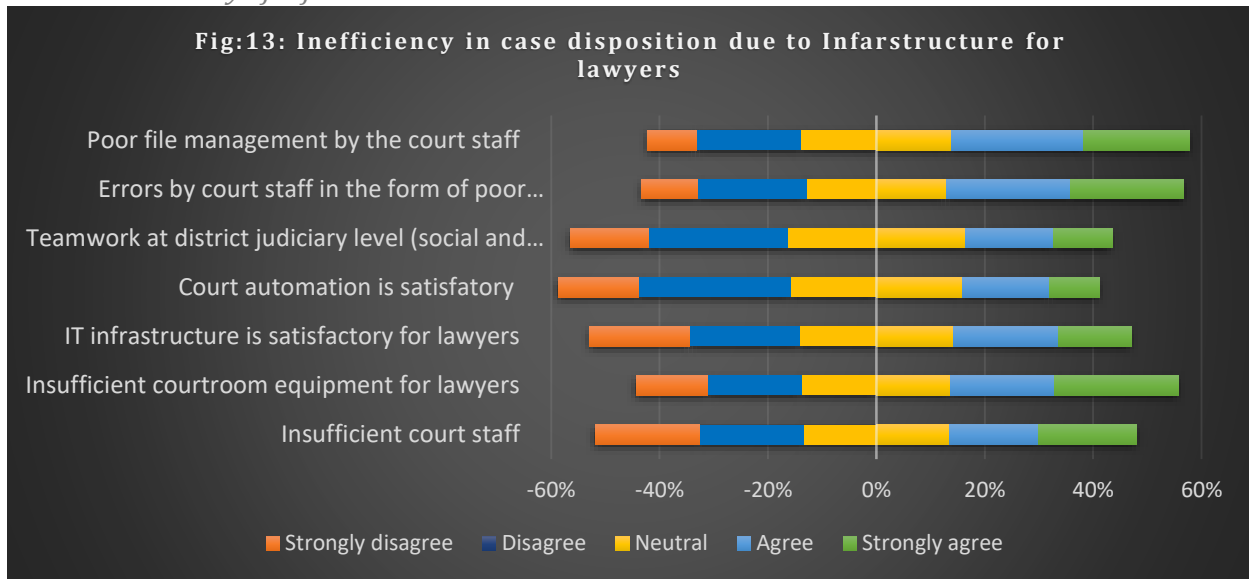- Quality of the services
- Integrity of the system

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[8] For further information on the European Commission for the Efficiency of Justice (CEPEJ) see the website: www.coe.int/cepe

- Litigation process
- Complicated Procedural Delays in Judiciary
- Corruption in judiciary
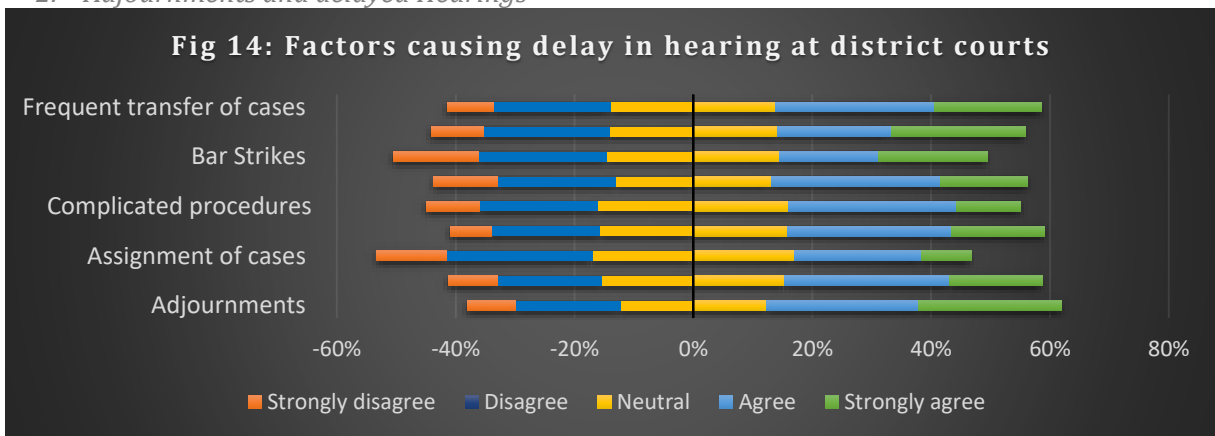- Ways to reduce Backlog.

7.1.1 Graphical Representation of Survey from Lawyers

The survey was conducted using several efficiency indicators being considered in much European research works for the improvement of judicial performance. Detailed questionnaires and summary statistics of each survey is given are provided in the Appendix. Below is given the visualization of Likert scale-based questions in each survey.
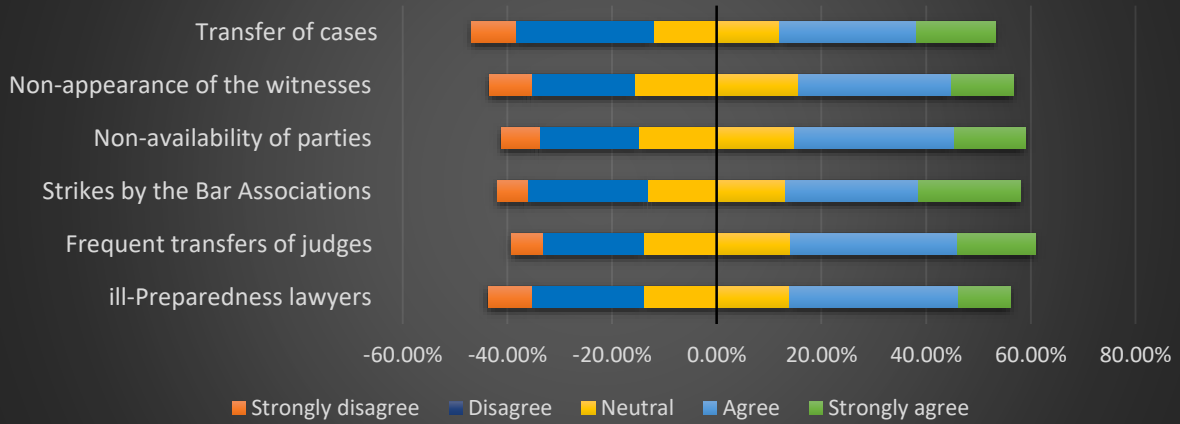
1. *Availability of Infrastructure*

Fig:13: Inefficiency in case disposition due to Infarstructure for lawyers

2. *Adjournments and delayed Hearings*

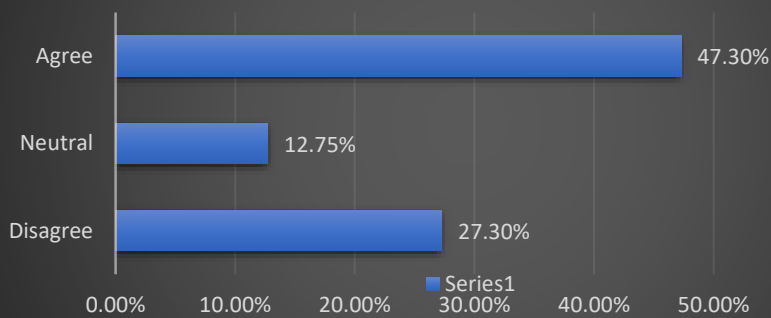Fig 14: Factors causing delay in hearing at district courts
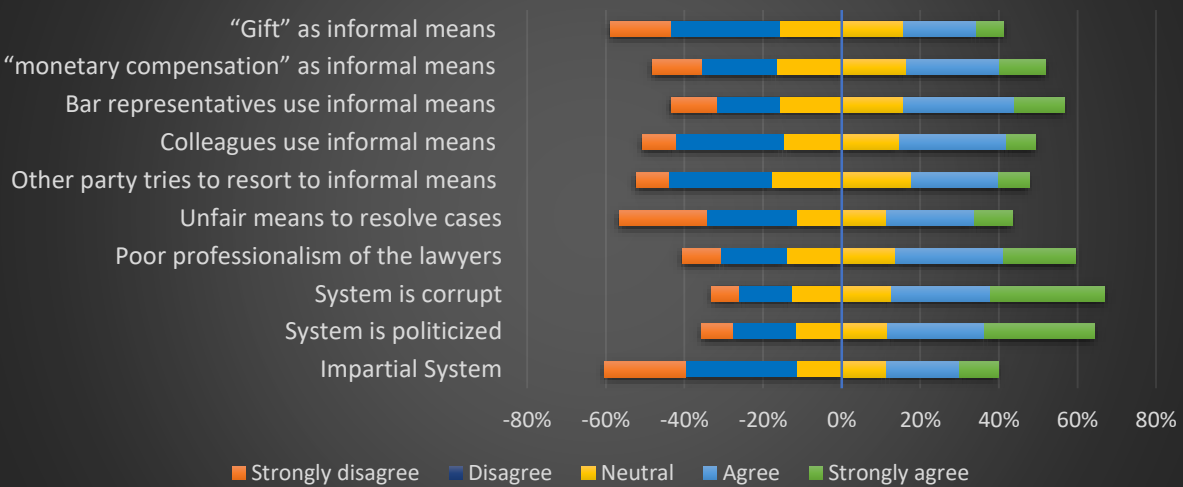
3. *Causes of Adjournments*

Fig 15: Causes of Adjournments

4. *Penalty on adjournments*

Fig 16: Judges should restrict adjournments by imposing heavy monetary penalities.

- Agree — 47.30%
- Neutral — 12.75%
- Disagree — 27.30%
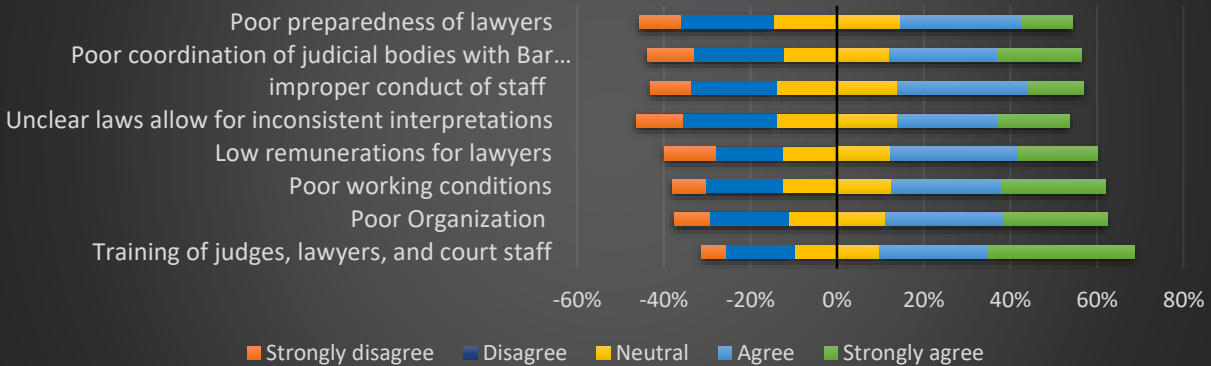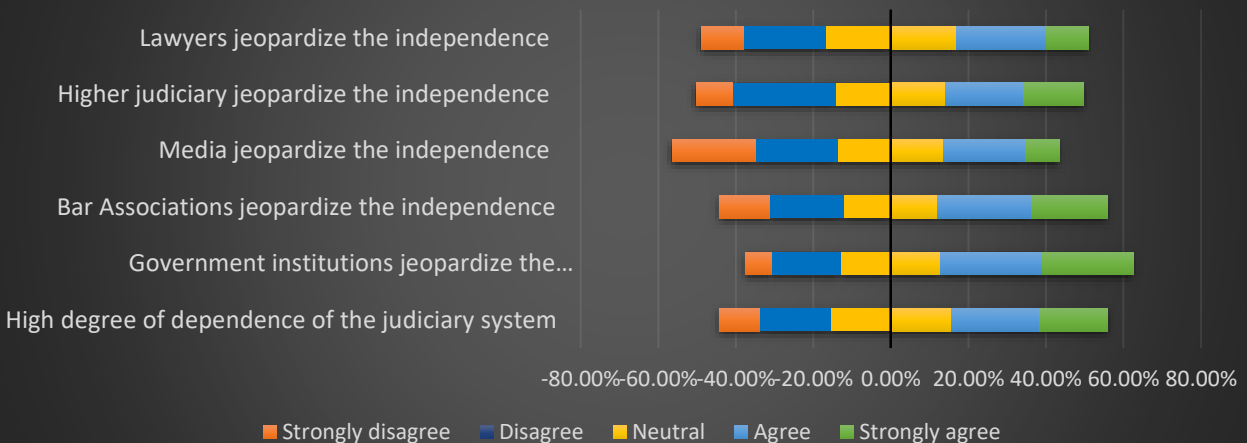
5. *Fairness of the System*

Fig 17: Fairness of the Judiciary System

6. *Factors affecting Quality of Judicial Services*
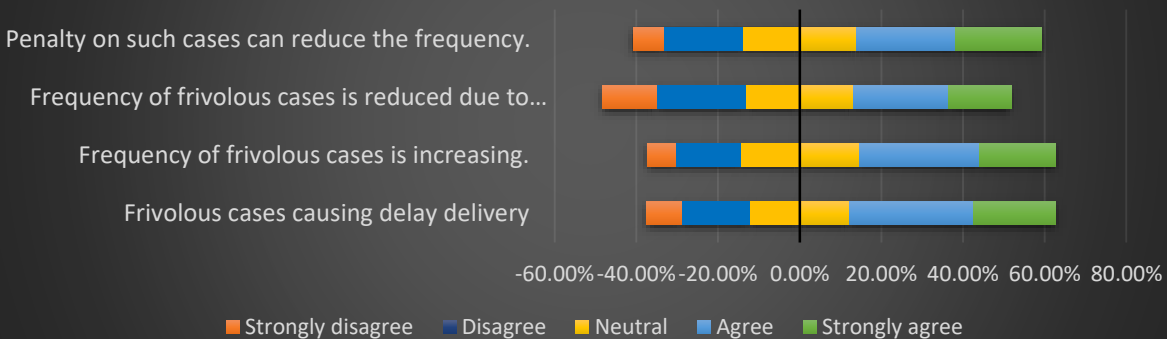
Fig 18: Factors affecting Quality of Judicial Services

Poor preparedness of lawyers
Poor coordination of judicial bodies with Bar...
improper conduct of staff
Unclear laws allow for inconsistent interpretations
Low remunerations for lawyers
Poor working conditions
Poor Organization
Training of judges, lawyers, and court staff

-60%   -40%   -20%   0%   20%   40%   60%   80%

■ Strongly disagree   ■ Disagree   ■ Neutral   ■ Agree   ■ Strongly agree

7. Integrity/Independence of the judiciary system

Fig 19: Integrity of the Judiciary System

Lawyers jeopardize the independence
Higher judiciary jeopardize the independence
Media jeopardize the independence
Bar Associations jeopardize the independence
Government institutions jeopardize the...
High degree of dependence of the judiciary system

-80.00%-60.00%-40.00%-20.00% 0.00% 20.00% 40.00% 60.00% 80.00%

■ Strongly disagree   ■ Disagree   ■ Neutral   ■ Agree   ■ Strongly agree

8. Frivolous Cases

Fig 20: Frivolous cases causing Backlog in District Courts

Penalty on such cases can reduce the frequency.
Frequency of frivolous cases is reduced due to...
Frequency of frivolous cases is increasing.
Frivolous cases causing delay delivery

-60.00% -40.00% -20.00% 0.00% 20.00% 40.00% 60.00% 80.00%

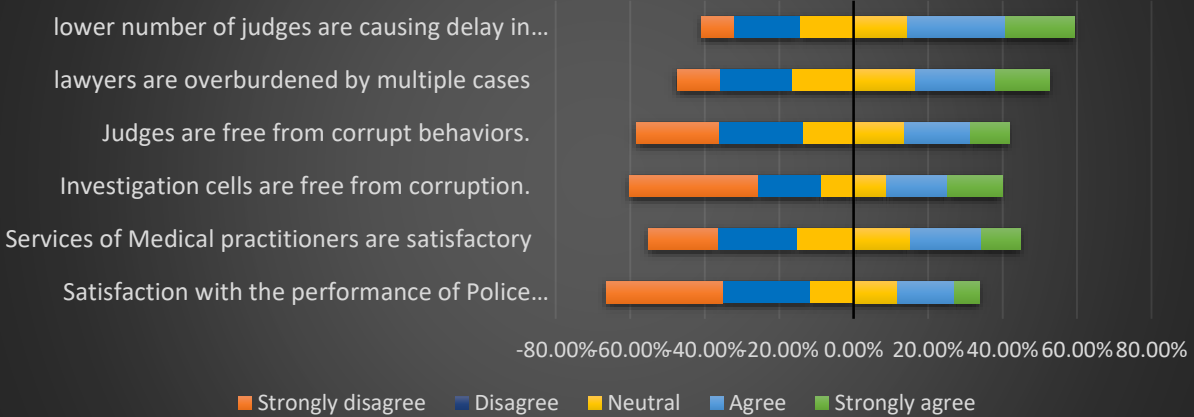■ Strongly disagree   ■ Disagree   ■ Neutral   ■ Agree   ■ Strongly agree

9. Complicated Procedural Delays in Judicial process
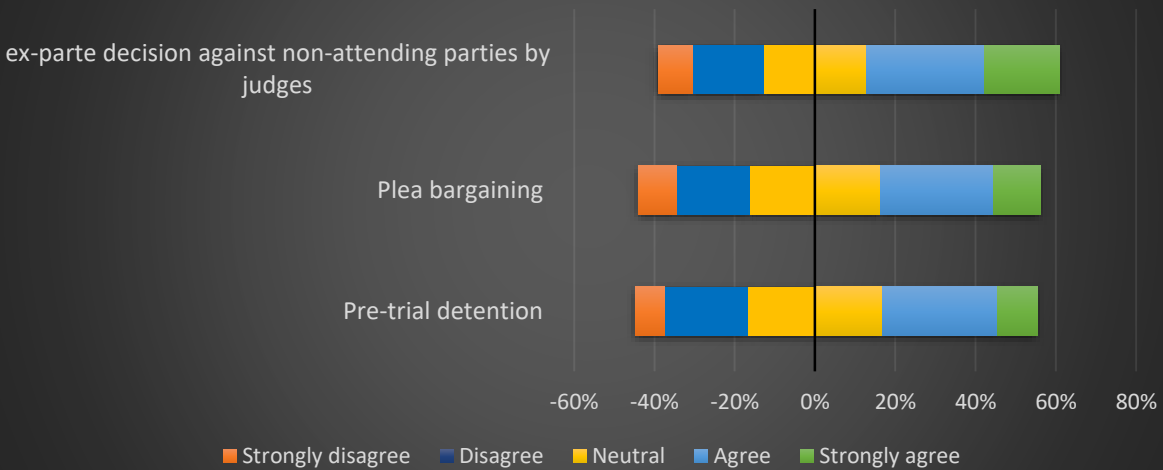
Fig 21: Court Procedural causing backlog
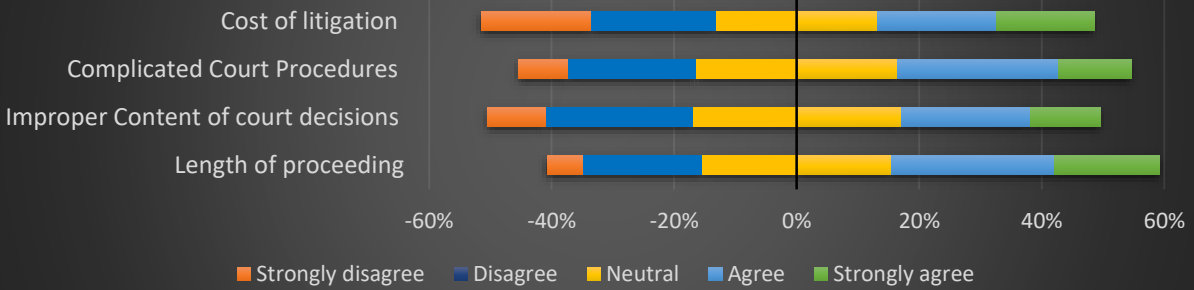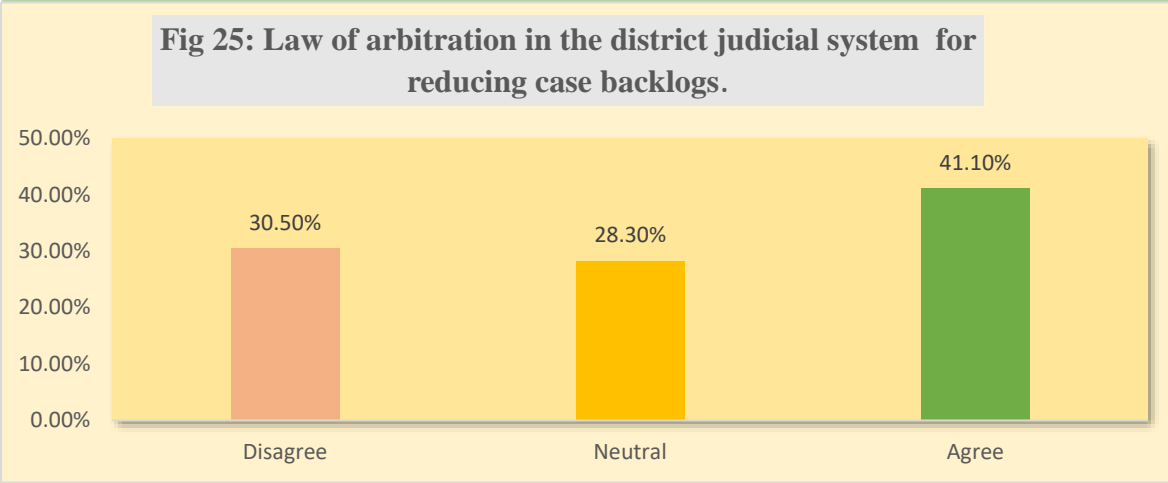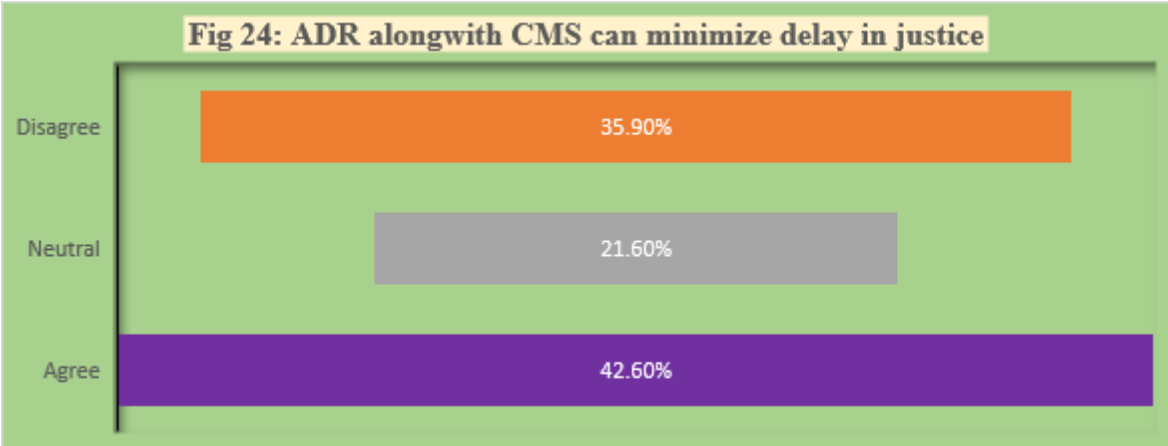
10. *Lack of Coordination between Law Enforcement*

Fig 22: Coordination of Law Enforcement Agencies

8. *Ways to reduce Backlog*

Fig 23: Ways to clear Backlog in District courts

xxx

Fig 24: ADR alongwith CMS can minimize delay in justice

Disagree	35.90%
Neutral	21.60%
Agree	42.60%

Fig 25: Law of arbitration in the district judicial system for reducing case backlogs.

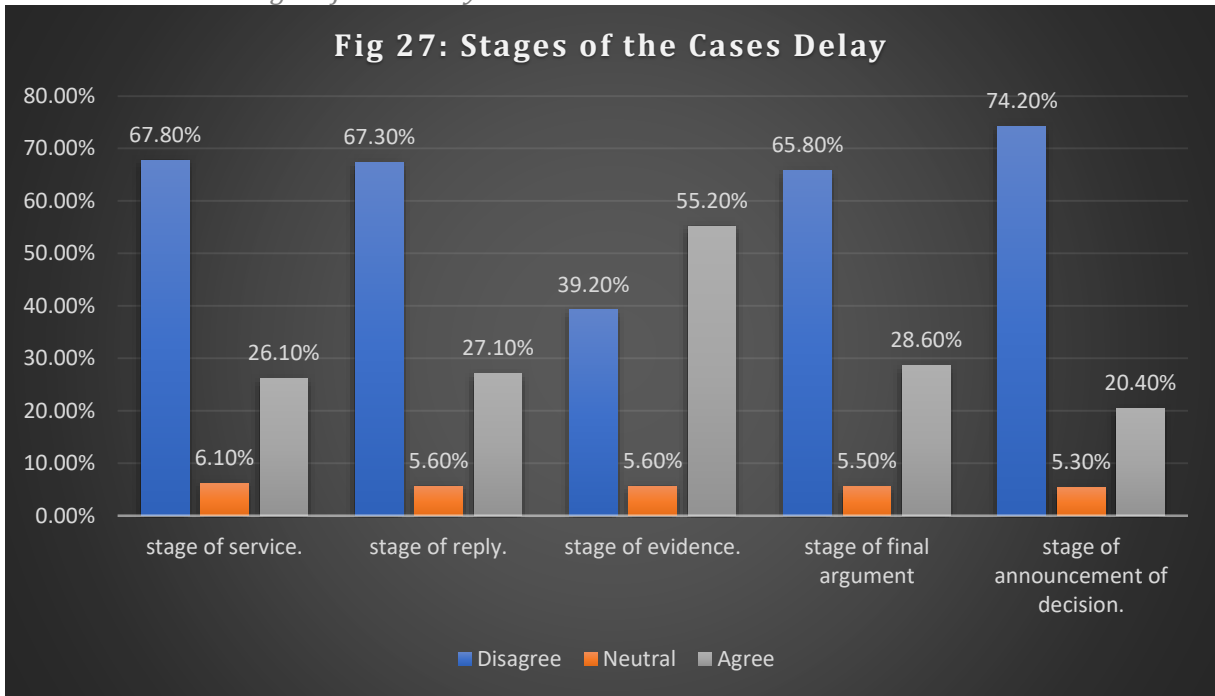*7.1.2. Graphical Representation of Survey from Litigants*

This section gives the preliminary results of the survey of the litigants from Lahore. Below is given the visual understanding of the responses collected using the Likert scale-based questionnaire.

    1. *Reason of Delay*

Fig 26: Reasons of the case Delay
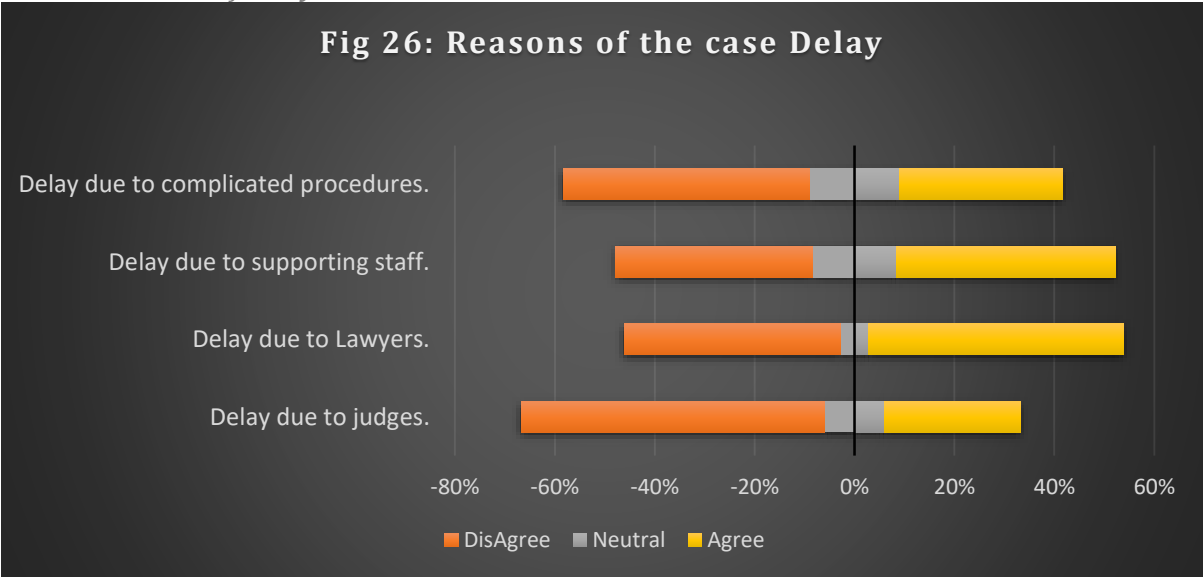
2. Various Stages of Case Delay:

Fig 27: Stages of the Cases Delay

2.1: Bottlenecks for Civil Suit as Plaintiff

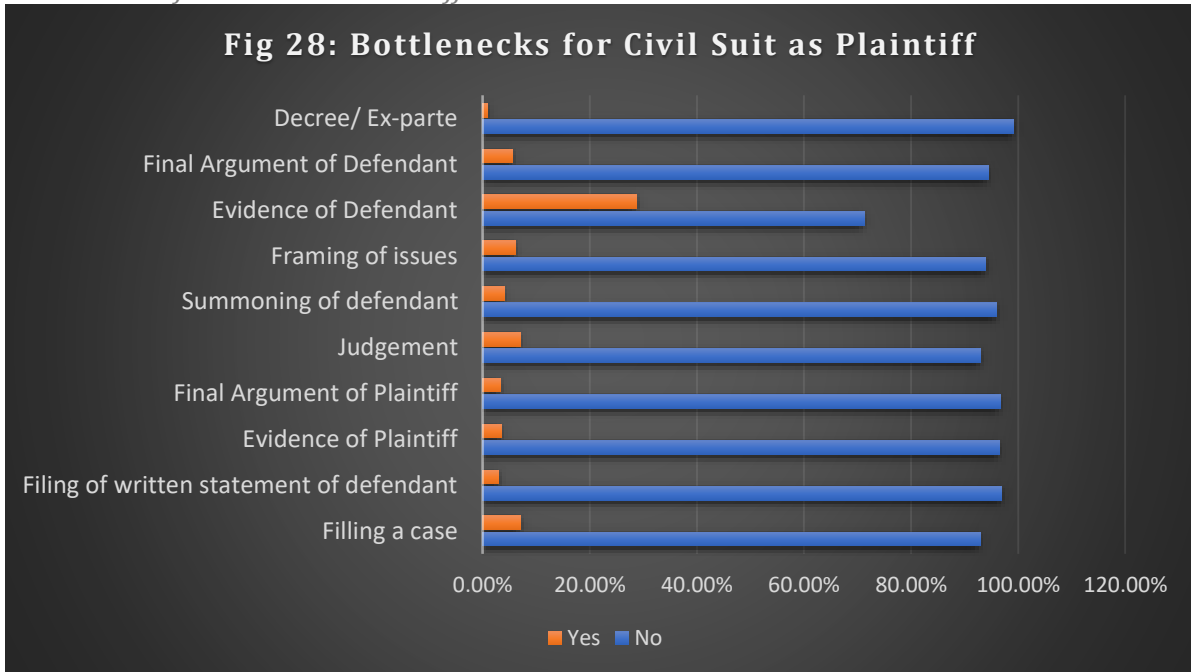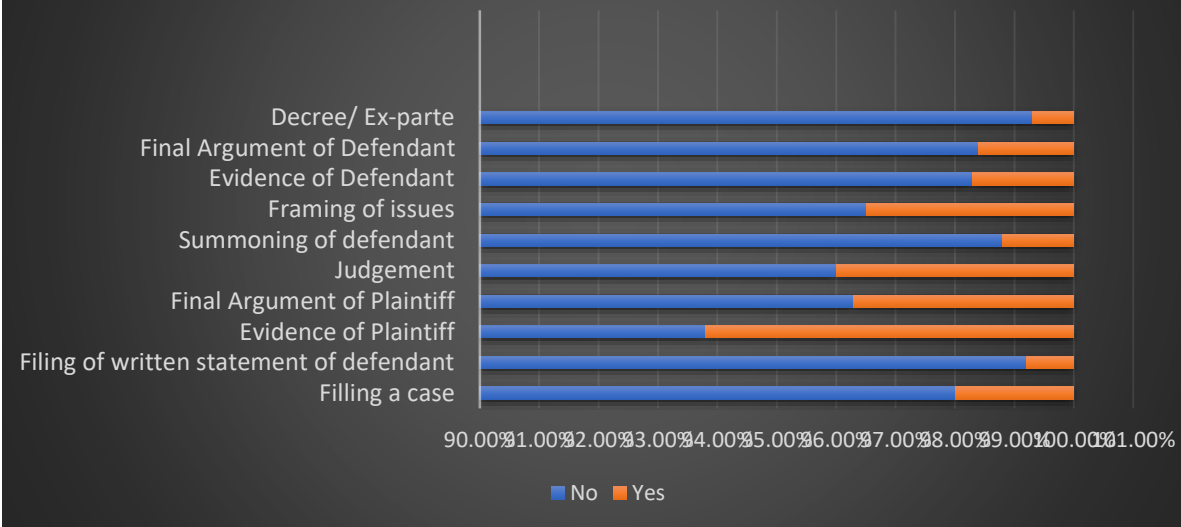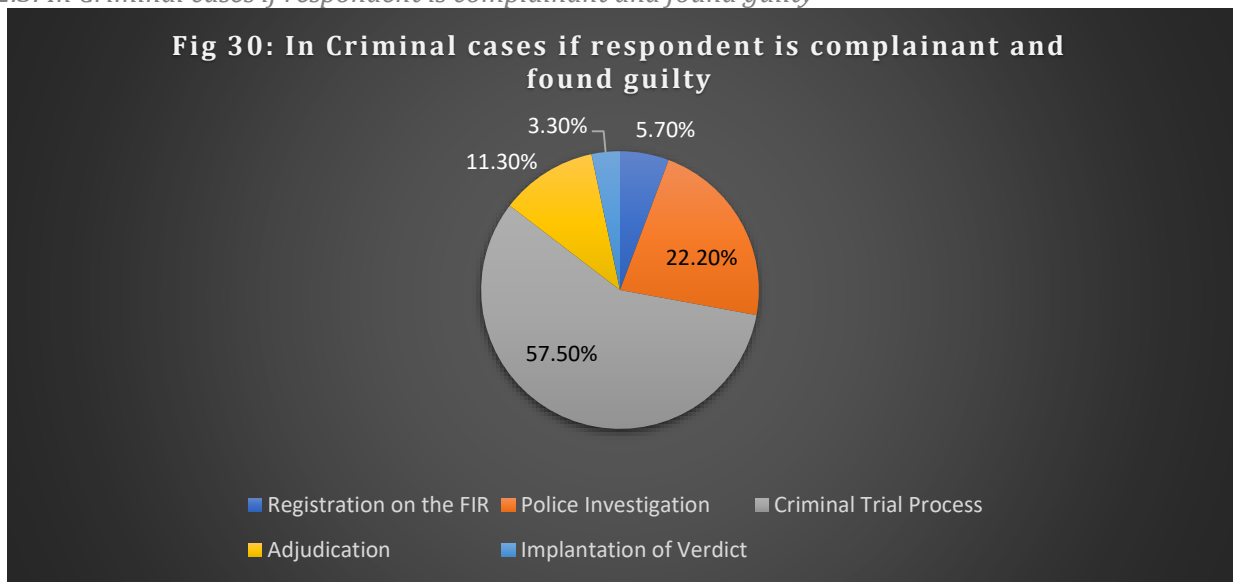Fig 28: Bottlenecks for Civil Suit as Plaintiff

2.2. Bottlenecks for Civil Suit as Defendant

Fig 29: Bottlenecks for Civil Suit as Defendant

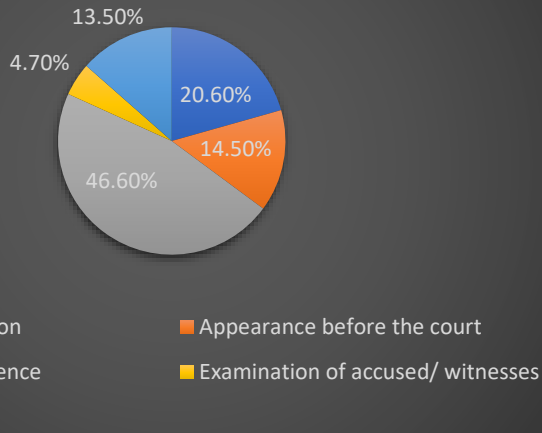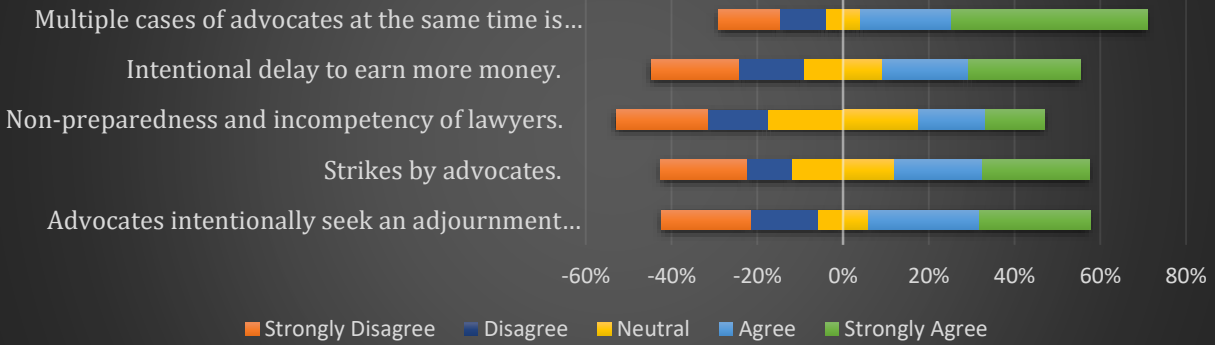*2.3: In Criminal cases if respondent is complainant and found guilty*

Fig 30: In Criminal cases if respondent is complainant and found guilty

2.4: In Criminal cases if respondent is accused and not found guilty

Fig 31: In Criminal cases if respondent is accused and not found guilty

13.50%
4.70%
20.60%
14.50%
46.60%

- Police Investigation
- Appearance before the court
- Prosecution evidence
- Examination of accused/ witnesses
- Judgement

3. *Delay due to Lawyers*

Fig 32: Delay due to Lawyers

Multiple cases of advocates at the same time is...
Intentional delay to earn more money.
Non-preparedness and incompetency of lawyers.
Strikes by advocates.
Advocates intentionally seek an adjournment...

-60% -40% -20% 0% 20% 40% 60% 80%

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

4. *Delay due to Judges*

Fig 33: Delay due to Judges

Are you satisfied with the behaviour of the court towards the poor?
Absenteeism of judges/Non-availability of judges
Lack of focus of the judges is causing delay.
Judges delay the decision intentionally.

-100.00% -80.00% -60.00% -40.00% -20.00% 0.00% 20.00% 40.00% 60.00% 80.00%

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

5. *Delay due to Supporting Staff*
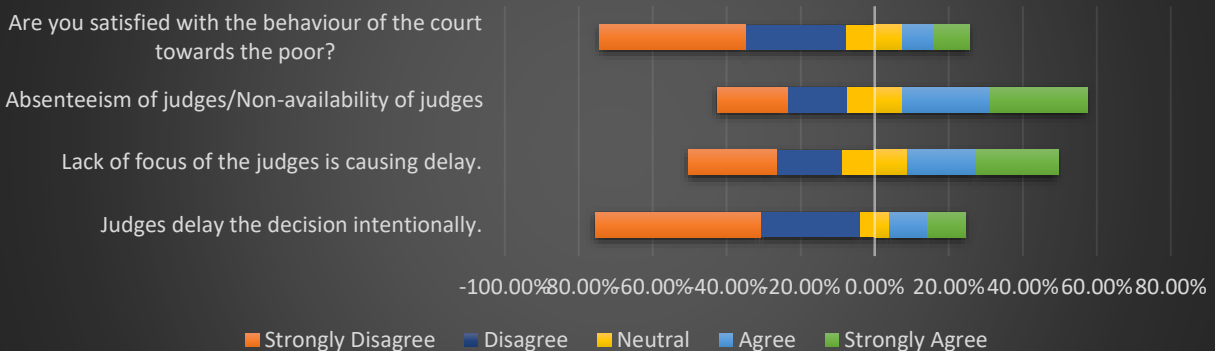
Fig 34: Delay due to Supporting Staff
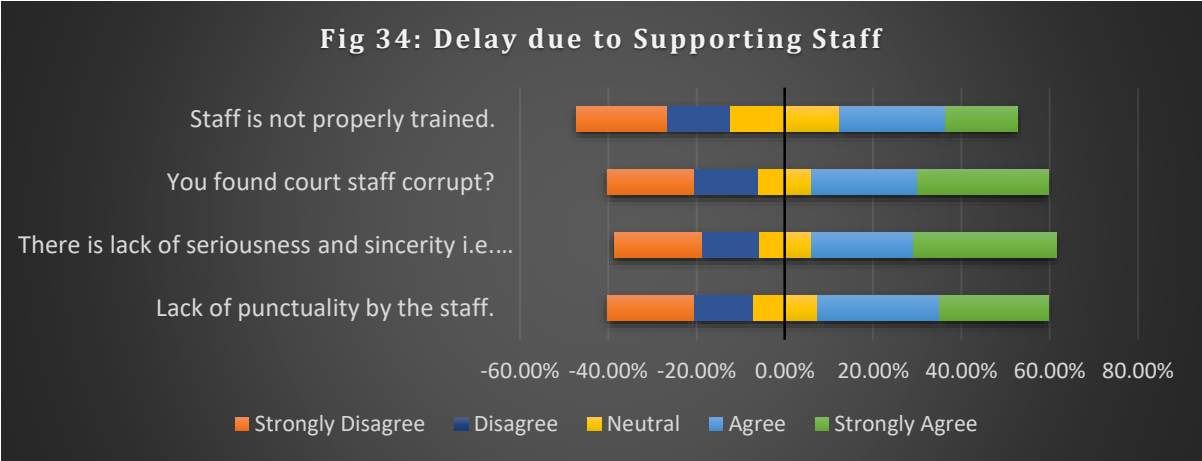
6. *Court Procedures*

Fig 35: Court Procedures

7. *Cost of Litigation*
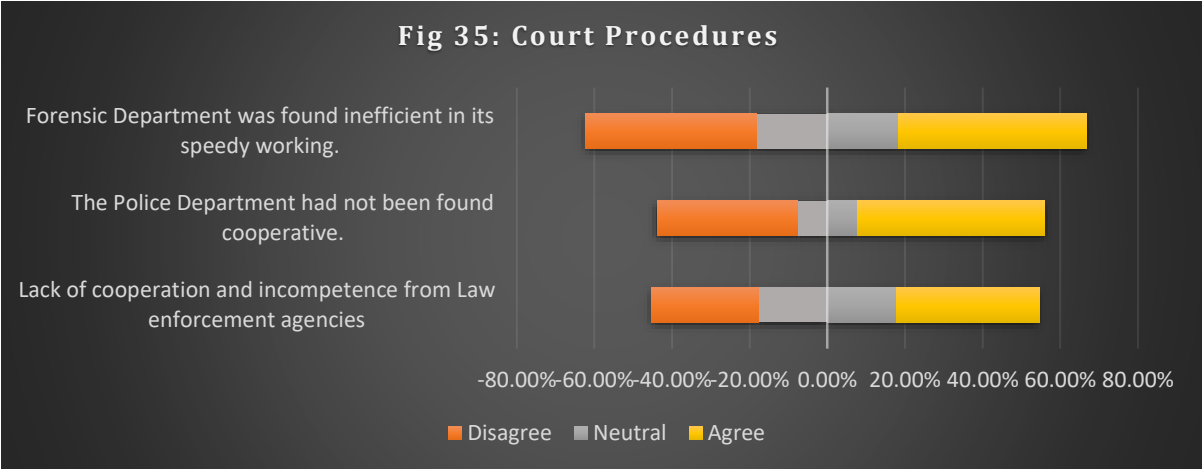
Fig 36: Opinion about cost of litigation
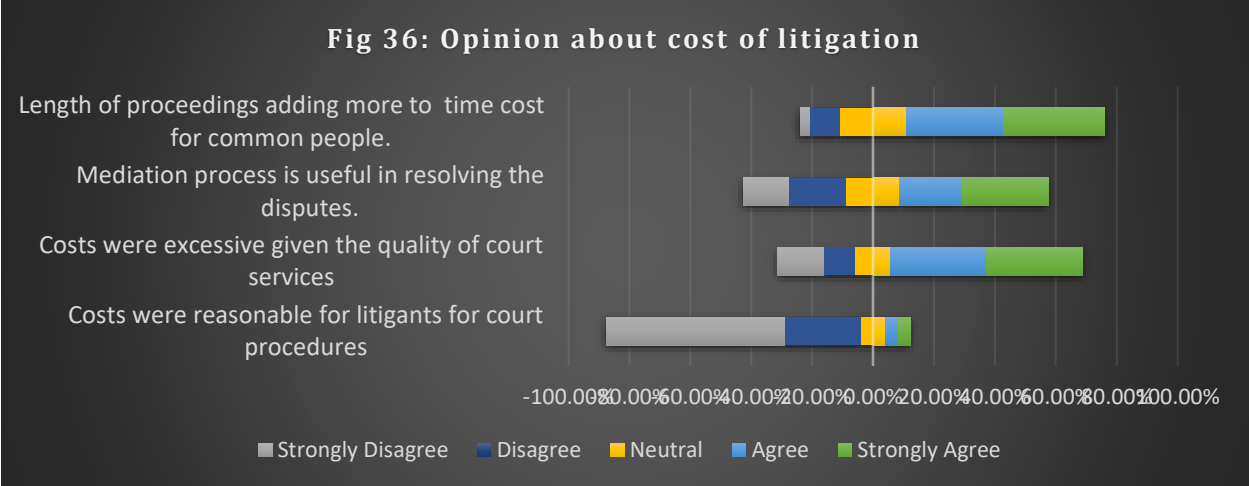
8. *Transparency*

Fig 37: Transparency at District Court System
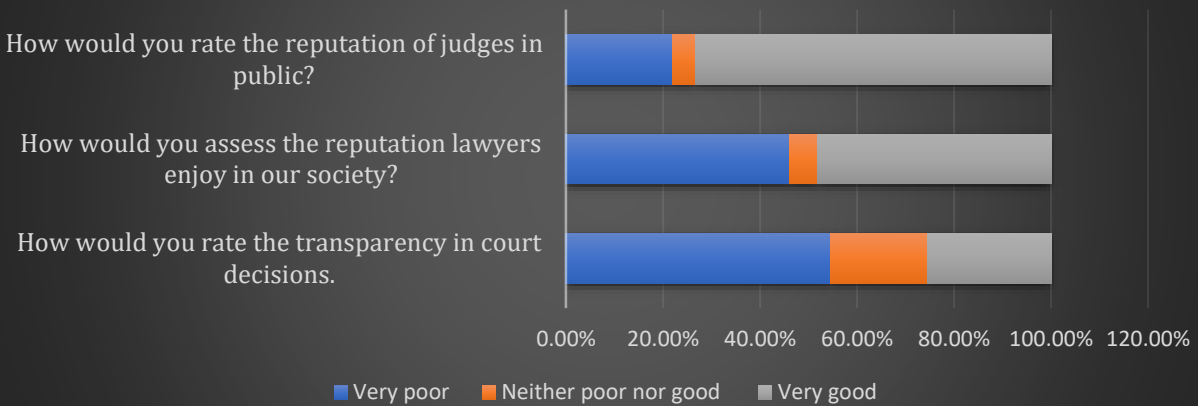
9. Impartiality

Fig 38: Impartiality of Court System
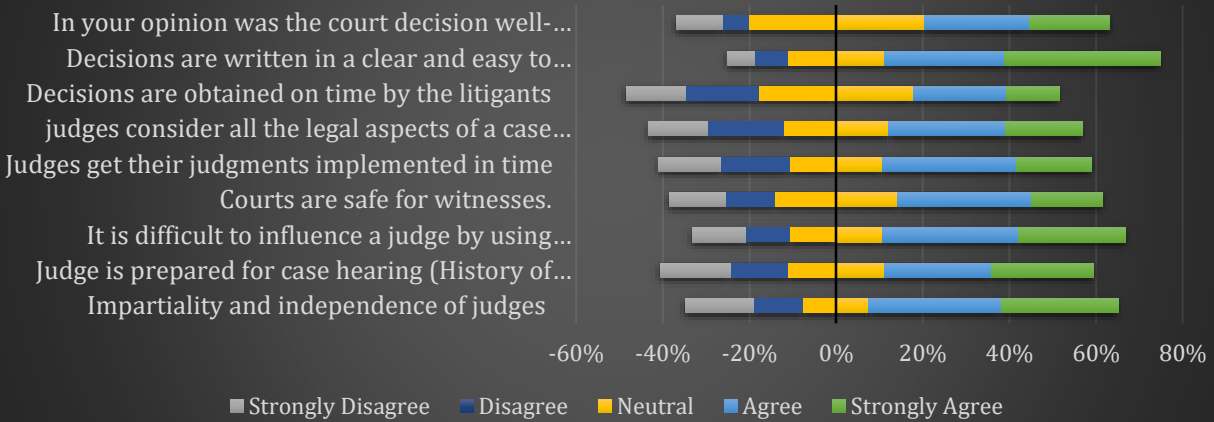
10. Transfer of the cases to the specialized judges

Fig 39: Cases should be transferred to judges according to their experience or specialization for early disposition.
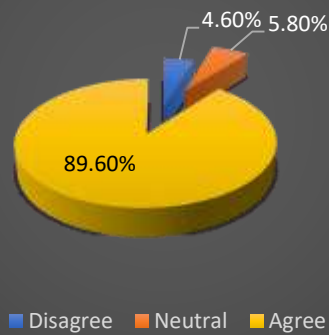
Fig 40: To what extent you think court should restrict the adjournments?

9%
8%
83%

■ Less ■ Neutral ■ Large
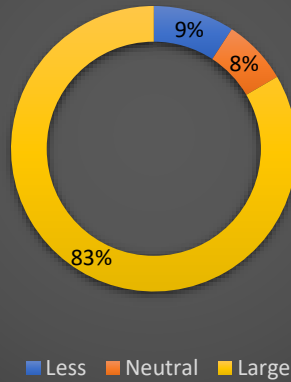
11. Delayed Hearings

Fig 41: Factors affecting delayed Hearings

Do you think the delays/rescheduling of hearing was justified?
Did you timely receive notifications about your case hearing?
Was the date and time of hearing agreed with you?
Has the hearing of your most recent case started on time (according to the schedule)?

-80.00% -60.00% -40.00% -20.00% 0.00% 20.00% 40.00% 60.00%

■ Strongly Disagree ■ Disagree ■ Neutral ■ Agree ■ Strongly Agree
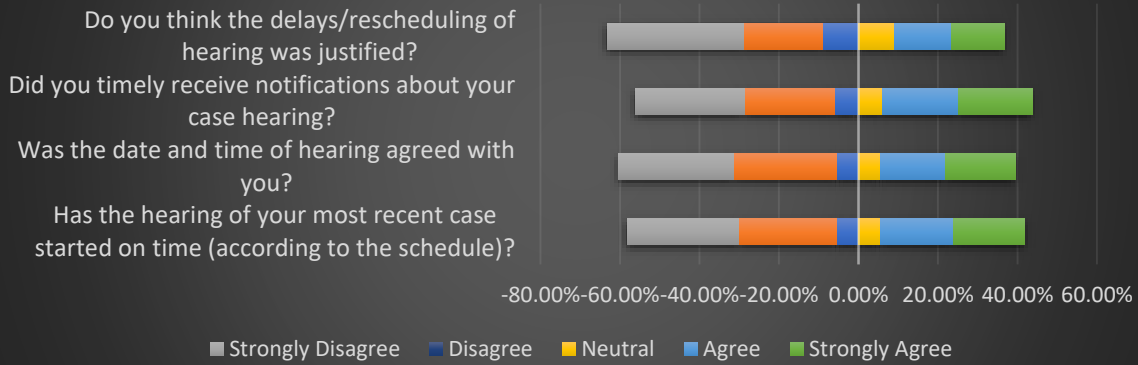
12. Timeliness

Fig 42: Satisfaction about the timeliness of proceedings

Disagree — 51.40%
Neutral — 18.80%
Agree — 29.80%
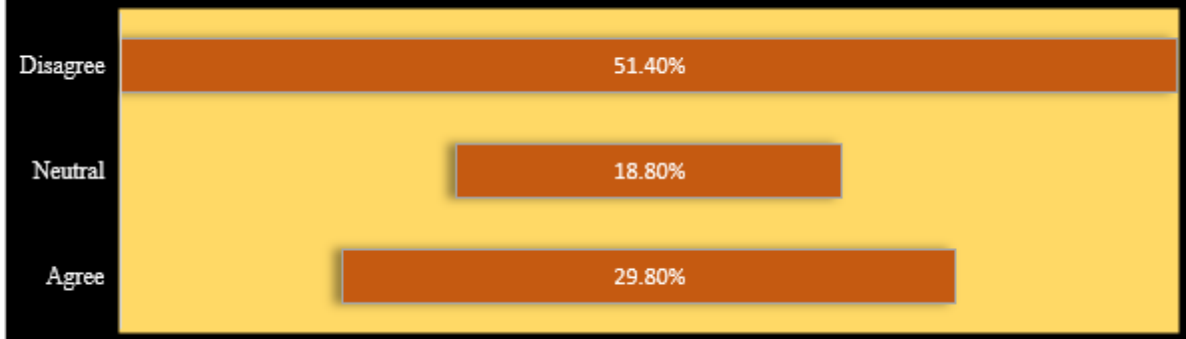
13. Indicators responsible for poor Quality of Work

Fig 43: Poor Performance indicators during court procedures
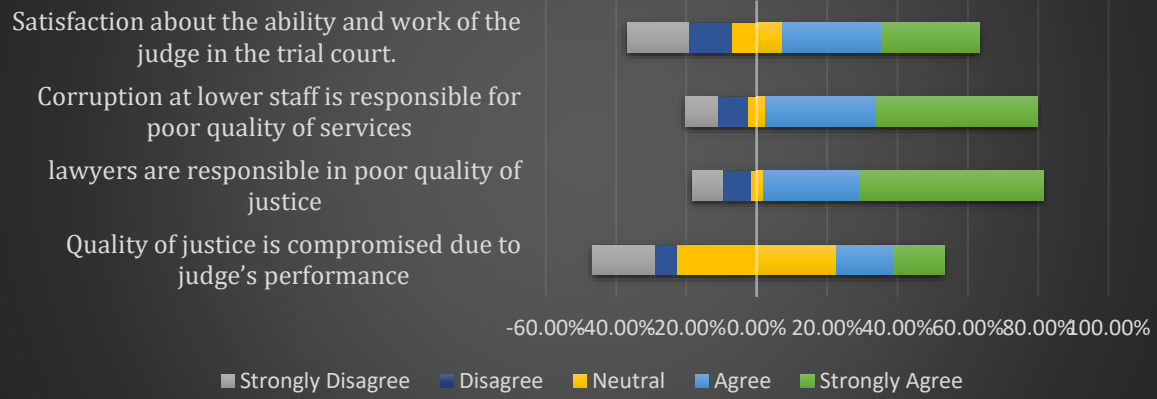
14. Corruption

Fig 44: Lack of fairness is causing delay in justice.

13.80%
27.50%
58.80%

■ Disagree ■ Neutral ■ Agree
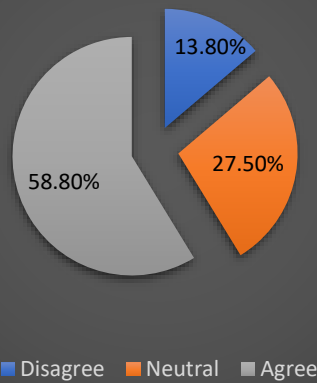
15. Use of Informal Means

Fig 45: To what extent you found the circumstances in which using informal means, case are adjudicated more efficiently?

25.10%
39.50%
35.40%

No Existence   Found Rare   To large Extent
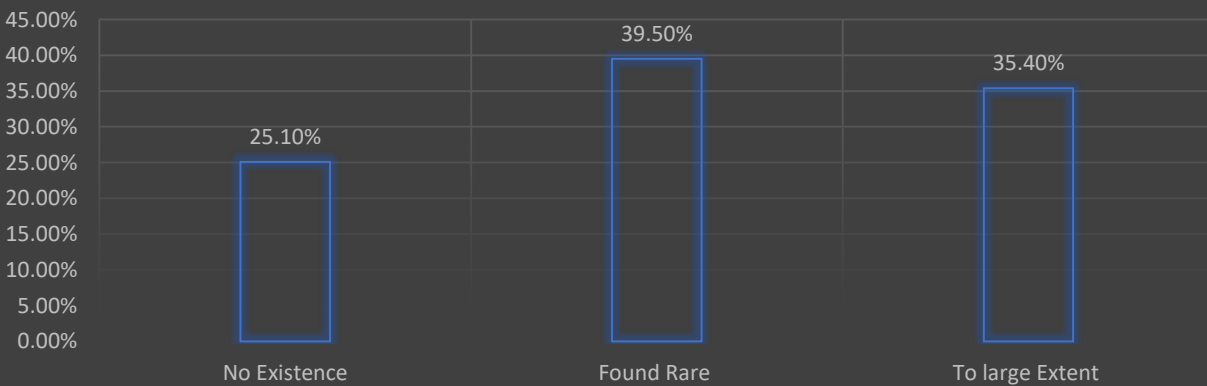
16. File management

Fig 46: Satisfaction about file management in district courts
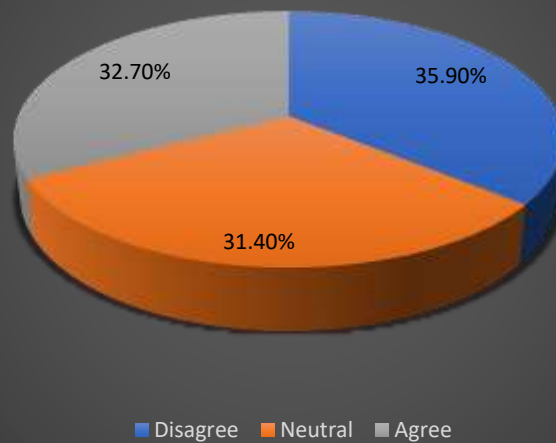
- 32.70%
- 35.90%
- 31.40%

■ Disagree ■ Neutral ■ Agree

All these graphic expressions are self-explanatory showing the areas where the performance indicators are working poorly. Now the next section will cover the survey of judges from three cities.

7.1.3 Graphical Representation of Survey from Judges

Now in this section perceptions of judges are graphically expressed to analyze bottlenecks in the court system from these court managers. Following the same parameters used above, below is given the detailed analysis and on the basis of this policy recommendations are suggested in the end.

1. *Support of Infrastructure in service delivery*

Fig 47: Support of Infrastructure in service delivery

■ Strongly disagree ■ Disagree ■ Neutral ■ Agree ■ Strongly agree

2. *Integrity of system*

Fig 48: Integrity of system

poor professionalism
politicized judicial system
enforcement of laws
impartial Judicial System

-60.00% -40.00% -20.00% 0.00% 20.00% 40.00% 60.00% 80.00%

■ Strongly disagree ■ Disagree ■ Neutral ■ Agree ■ Strongly agree

3. *Corruption in Judicial System*

Fig 49: Corruption in Judicial System

"Offerings of elevations" the most pursued informal means
"Gift" the most pursued informal means
"monetary compensation" is used as informal means
Mostly Bar representatives use informal means
your colleagues use informal means
informal means to affect your work

-80% -60% -40% -20% 0% 20% 40% 60% 80%

■ Strongly Disagree ■ Disagree ■ Neutral ■ Agree ■ Strongly Agree

4. *Accessibility of services*

Fig 50 : Accessibility of services
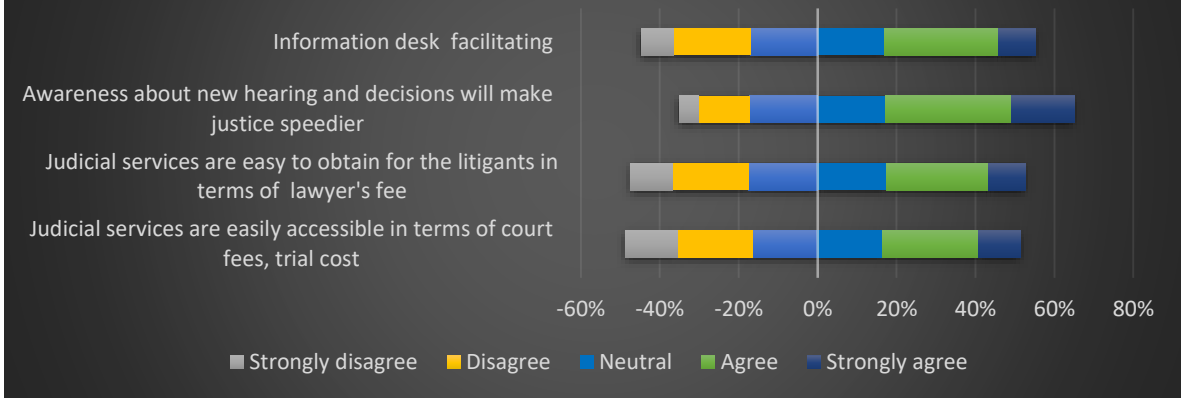
5. *Coordination of the law enforcement agencies*

Fig 51: Coordination of the law enforcement agencies
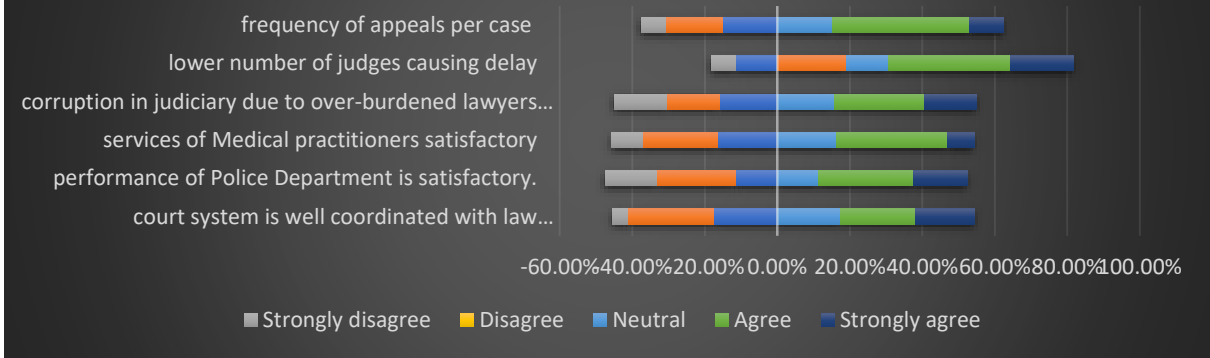
6. *Efficiency of Court Procedures*

Fig 52: Efficiency of Court Procedures

7. Team work at Judicial level
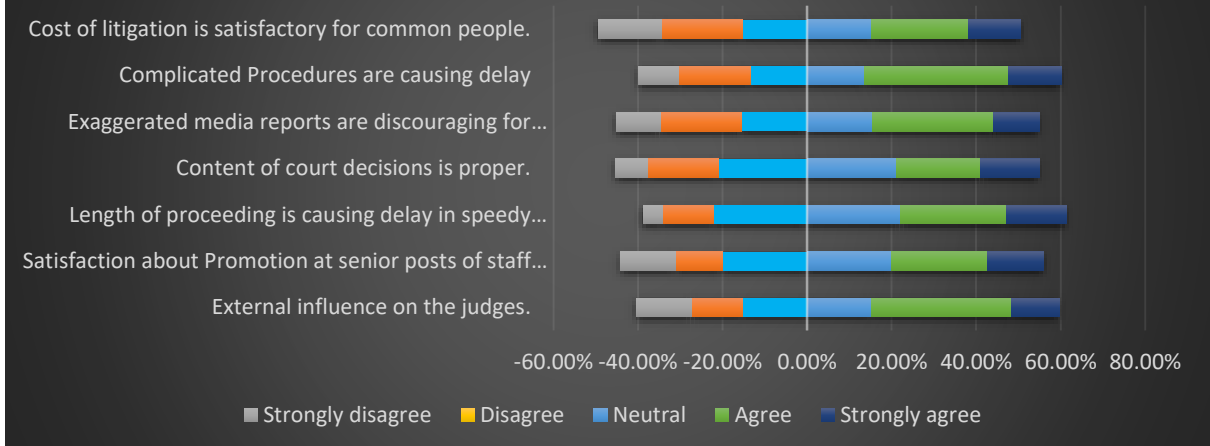
Fig 53: Team work at Judicial level

8. Delay in proceedings
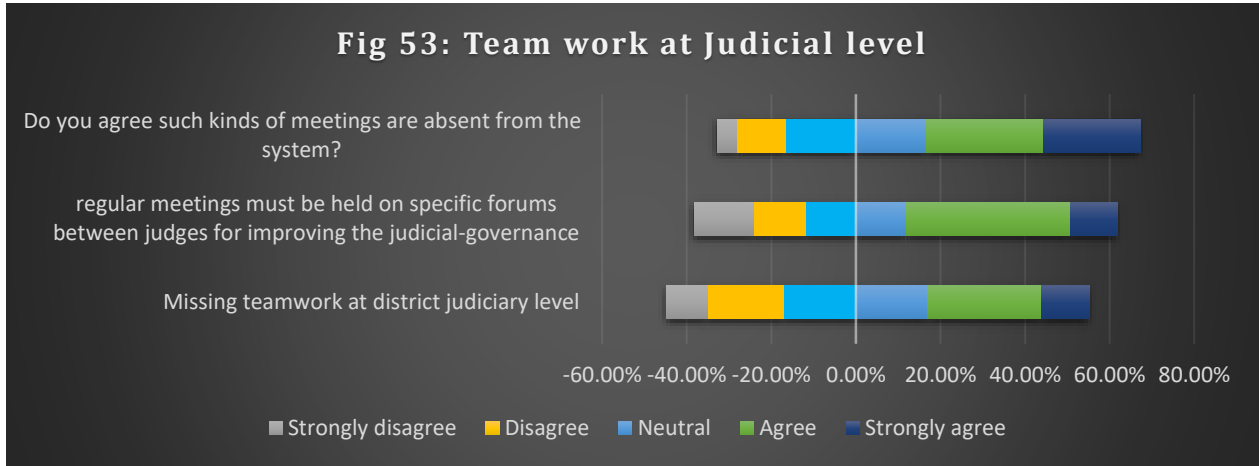
Fig 54: Delay in proceedings
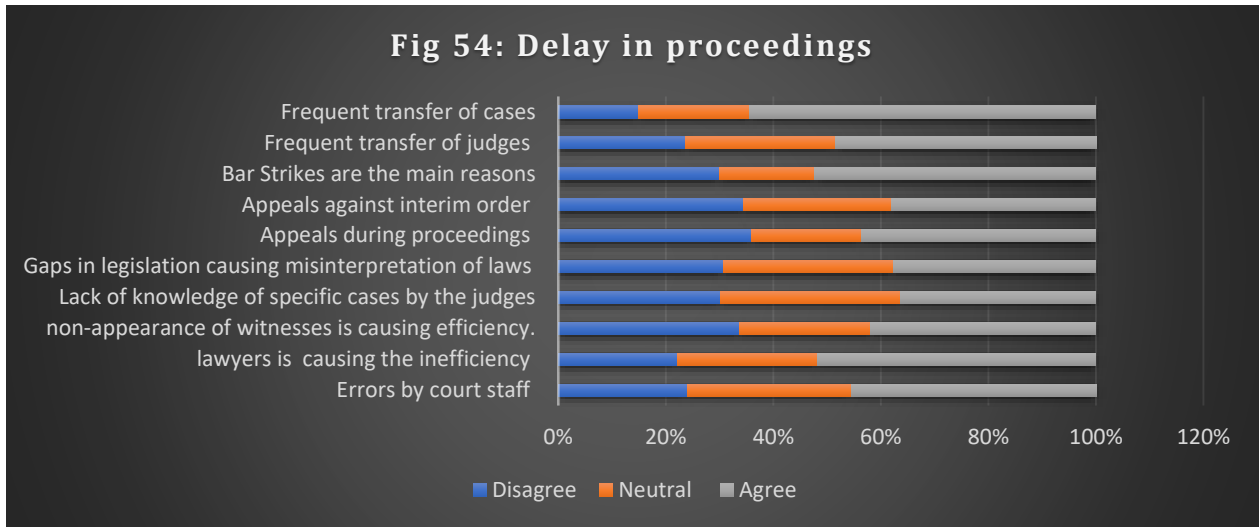
9. Adjournments

Fig 55: Adjournments
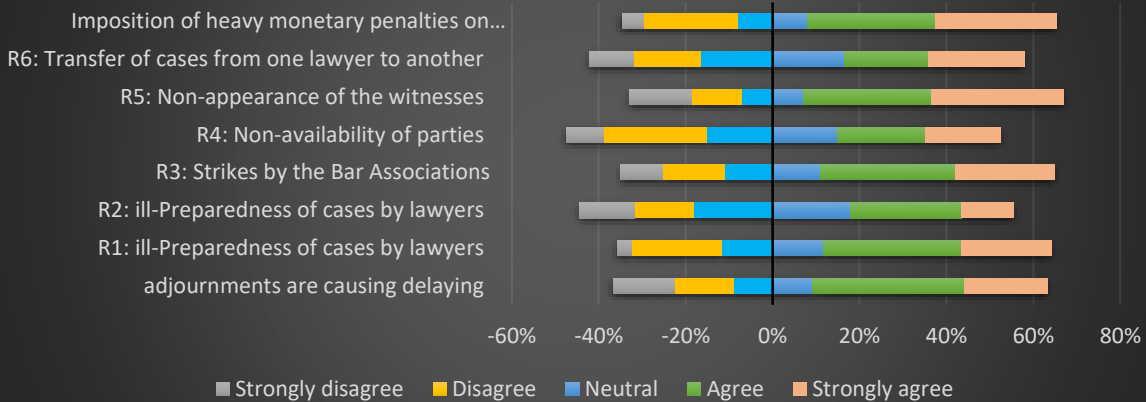
10. *Delay In Hearings*

Fig 56: Delay In Hearings
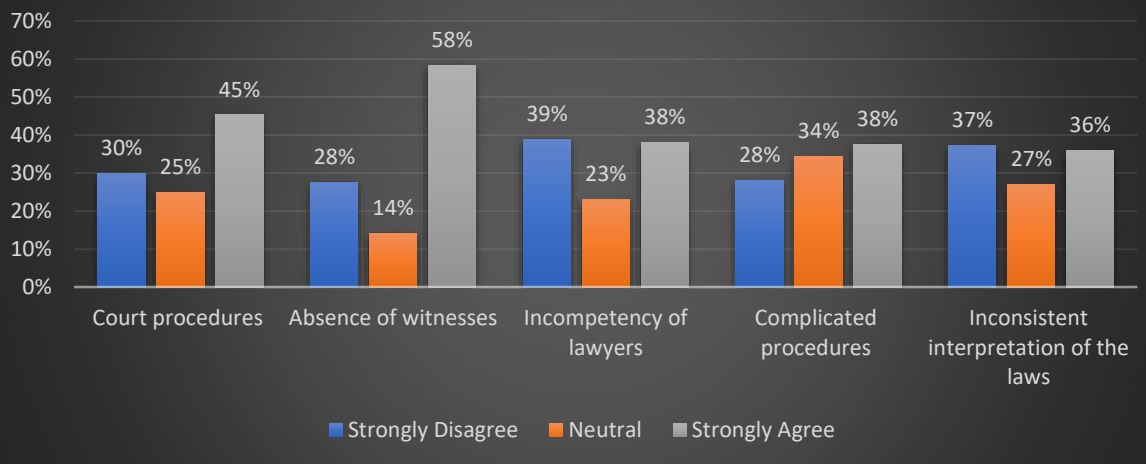
11. *Frivolous cases*

Fig 57: Frivolous cases

12. *Possible solution to reduce backlog.*
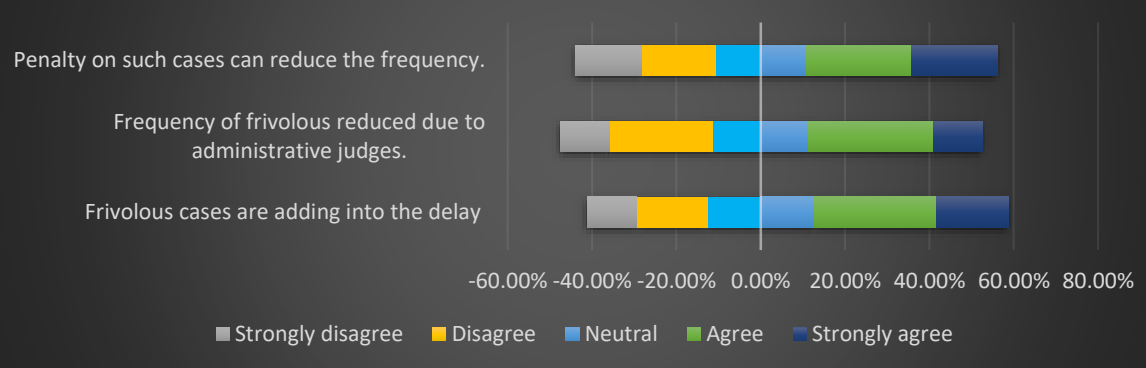
Fig 58: Possible solution to reduce backlog

13. *Factors that can improve quality of justice.*
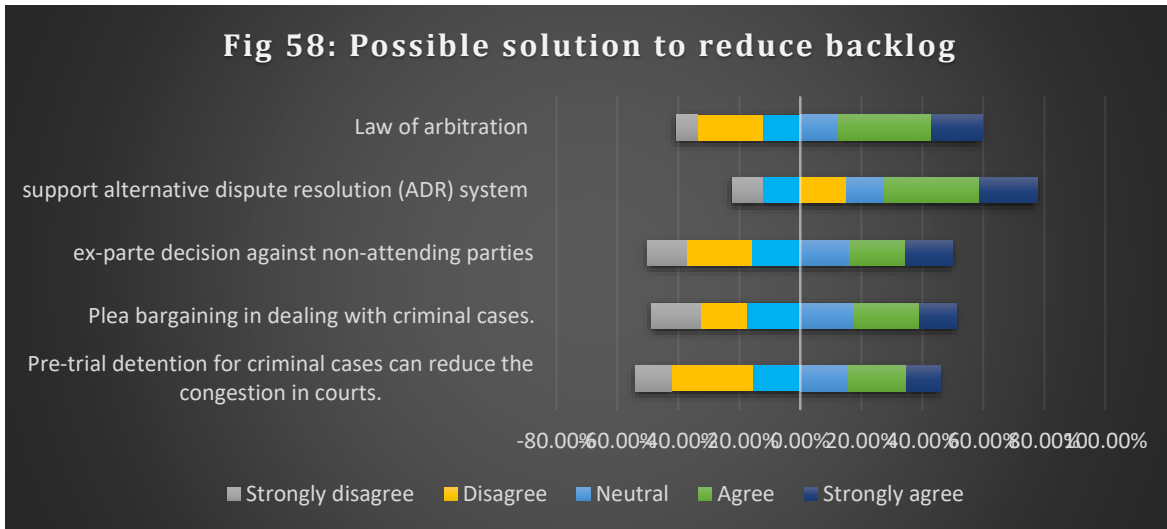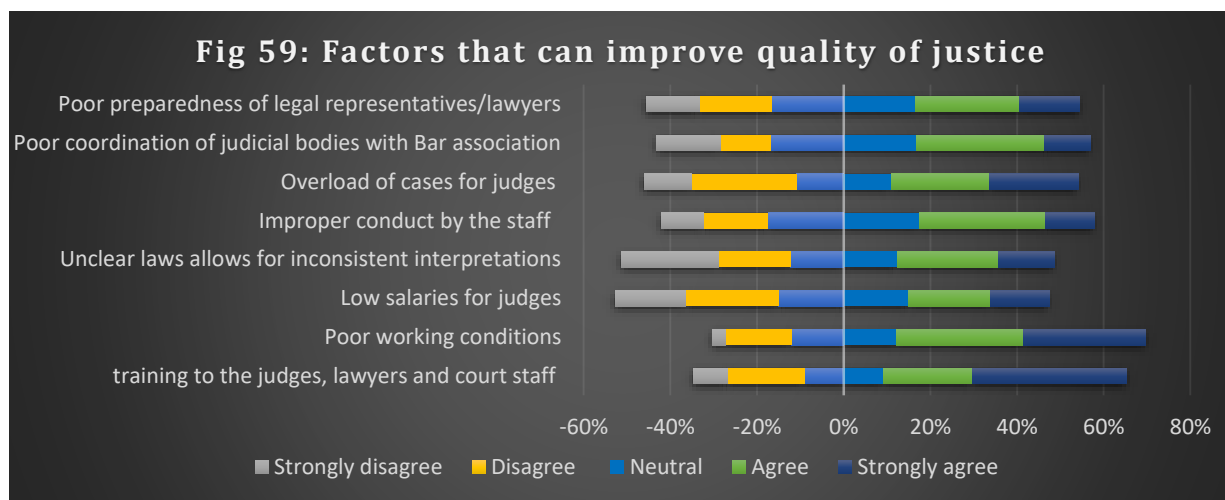
Fig 59: Factors that can improve quality of justice

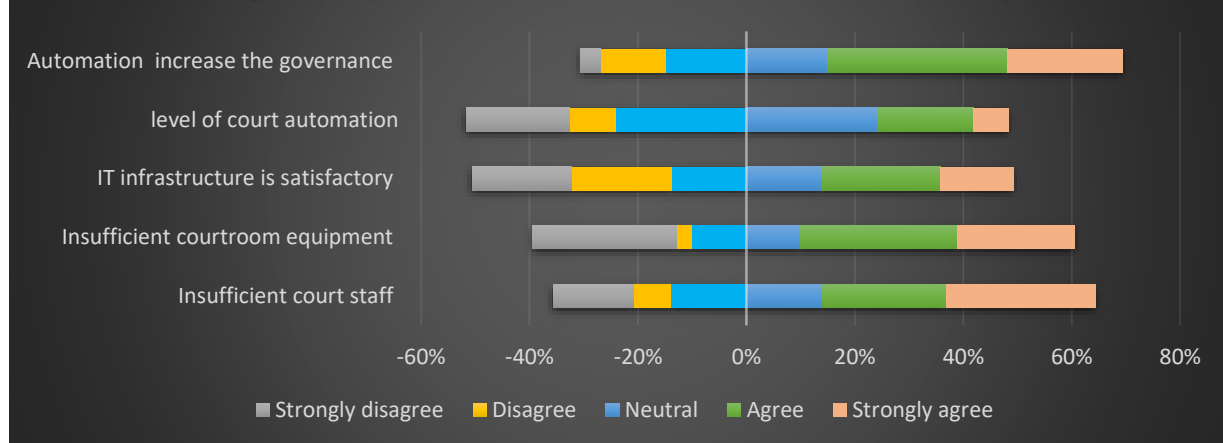*All these graphic expressions are self-explanatory showing the areas where the performance indicators are working poorly. Now based on these findings, below is given the SERVQUAL analysis of the court services provided by the lawyers and to the litigants.*

SERVQUAL ANALYSIS FOR THE COURT USERS

This analysis is used for measuring the user's satisfaction for a specific service they are using. This aims to find the gap between the perceptions of the customer of the services and their actual satisfaction after consuming this. There are usually five dimensions, being extensively used in the literature i.e., tangibles, reliability, responsiveness, assurance, and empathy (Abili et al., 2011; El-Bassiouni et al., 2012). However, in a few studies a further three dimensions have been added for this kind of analysis i.e., effectiveness, scope, and access to services (Ibrahim et al., 2006; Tsoukatos and Rand, 2006). In the present study a questionnaire was designed for this purpose to be filled by the litigants comprising of 40 questions (20 for measuring the perceptions about a specific quality and 20 for measuring the actual level of service quality). The sampling frame was Lahore district courts

specifically. Below is given the detail about the distribution of set parameters under five dimensions of SERVQUAL analysis for the present study.

Dimension	Parameters
Empathy	Behavior towards poor
	Supporting staff
	Judges' Performance
	Satisfaction about Lawyers
	Satisfaction about Cost of proceedings
Assurance	Safety in courts
	Enforcement of judgements
	Impartiality of court decisions
	Integrity of court decision
Reliability	Satisfaction about Timeliness
	Police Department
	Forensic Department
	Law enforcement Agencies
Effectiveness	Satisfaction about Timely Hearing
	Appeal system
Tangibles	Satisfaction about infrastructure
	Content of judgement
	File management
	Awareness of procedures
	Clarity of court procedures

Following this distribution, the analysis was performed. The questionnaires were based on 5-point Likert Scale, one was about to collect the perceptions against the proposed set of parameters and the other was to gather information about the satisfaction level for those instruments. '1' measuring 'less important' and 'Dissatisfaction' about a service while '5' shows the 'most important' and 'Highest satisfaction level for a service.

8.1 SERVQUAL Analysis from Litigants' Expectations and Perceptions

Here the analysis is about the court performance for the court users, specifically the litigants. The purpose of the analysis is to examine user satisfaction for the court services. Gap analysis was also done to highlight the top and low priority areas of the court services being used by the litigants. Gap is calculated by subtracting expectation about a service from the satisfaction level after using it. If the value is positive, then it shows that the user is satisfied with the delivery of their services or here is over delivering on our promise against expectations and therefore the customer is delighted. However, if there is negative value then it shows that overpromising and underdelivering of the services versus expectations and the customer is unhappy and dissatisfied. Below is the Table classifying mean scores of both the perceptions/expectations and satisfaction of the litigants from the court services. Ranks have also been assigned in descending order i.e., '1' showing highest satisfaction and expectation and '20' is showing the dimension with least satisfaction and expectation. From the Table given below, this is quite visible that litigants are highly dissatisfied with the services of lawyers and the content of judgement is quite clear for them to understand. Nonetheless the court user has highest expectation from the services of lawyers and enforcement of judgements timely and least concerned about the integrity of court decisions.

Table 17: SERVQUAL Analysis from the survey of Litigants

	Satisfaction	Mean Score	Rank	Expectations	Mean Score	Rank	Gap	Priority
1	Awareness of procedures	3.6	2	Awareness of Procedures	4.3	13	-0.7	17
2	Appeal system	2.7	16	Appeal System	4.5	9	-1.8	5
3	Behavior towards poor	2.4	18	Behavior towards poor	4.7	3	-2.3	2
4	Supporting staff	3.1	10	Supporting staff	4.6	6	-1.5	9
5	Law enforcement Agencies	3.1	12	Law enforcement Agencies	4.4	11	-1.3	11
6	Police Department	3.1	11	Police Department	4.7	3	-1.6	6
7	Forensic Department	2.7	17	Forensic Department	4.3	13	-1.6	7
8	Judges' Performance	3.1	9	Judges' performance	4.6	6	-1.5	10
9	Satisfaction about Lawyers	2.0	20	Expectations about Lawyers	4.8	1	-2.8	1
10	Clarity of court procedures	3.5	4	Clarity of Court Procedures	4.5	9	-1.0	15
11	Safety in courts	3.2	6	Safety in Courts	4.2	16	-1.0	16
12	Enforcement of judgements	3.2	7	Enforcement of judgement	4.8	1	-1.6	8
13	Content of judgement	3.8	1	Content of judgement	4.4	11	-0.6	18
14	File management	3.2	8	File management	3.7	19	-0.5	19
15	Integrity of court decision	3.0	13	Integrity of court decision	3.2	20	-0.2	20
16	Satisfaction about Timeliness	2.8	14	Expectations about timeliness	3.9	18	-1.1	12
17	Impartiality of court decisions	3.3	5	Expectations about impartiality	4.3	13	-1.0	13
18	Satisfaction about Timely Hearing	2.7	15	Expectations for hearing Fixation	4.7	3	-2.0	4
19	Satisfaction about Cost of proceedings	2.1	19	Expectations about Cost of proceedings	4.2	16	-2.1	3
20	Satisfaction about infrastructure	3.6	3	Expectations about Information	4.6	6	-1.0	14
	Overall Satisfaction	**3.0**		**Overall Expectations**	**4.37**		**-1.37**	

'Ranks' are given in descending order. Average mean values are ranked to show the delivery of court services. i.e., highest value of rank shows highest satisfaction and lowest rank value shows lowest satisfaction area.

** Priority is in ascending order i.e., '1' is showing top priority (Under delivering of services) and '20' is showing least priority (contended delivering of service).

*** Top ▮▮▮▮▮ *Priority Low Priority*

The overall satisfaction score is 3.0 while the expected score is 4.37 showing a negative gap -1.4 which is quite high in its magnitude. Similarly for each parameter this gap is measured, and priority

areas are highlighted where the policymakers and concerned authorities must put their efforts to reduce the inefficiencies from the judicial system.

Table 18: Priority setting from the survey of Litigants

Dimension	Parameters	Mean Score	Priority
Empathy	Behavior towards poor	-2.3	2
	Supporting staff	-1.5	9
	Judges' Performance	-1.5	10
	Satisfaction about Lawyers	-2.8	1
	Satisfaction about Cost of proceedings	-2.1	3
Assurance	Safety in courts	-1.0	16
	Enforcement of judgements	-1.6	8
	Impartiality of court decisions	-1.0	13
	Integrity of court decision	-0.2	20
Reliability	Satisfaction about Timeliness	-1.1	12
	Police Department	-1.6	7
	Forensic Department	-1.5	10
	Law enforcement Agencies	-1.3	11
Effectiveness	Satisfaction about Timely Hearing	-2.0	4
	Appeal system	-1.8	5
Tangibles	Satisfaction about infrastructure	-1.0	14
	Content of judgement	-0.6	18
	File management	-0.5	19
	Awareness of procedures	-0.7	17
	Clarity of court procedures	-1.0	15

In Table 18 given above all the parameters are divided into the five dimensions which are used for measuring the service quality. According to litigants, judicial services are required to be empathetic towards poor by highlighting the priorities towards conduct of lawyers, behavior of courts towards poor like exemption of court fees or any financial help by the govt. for filing the cases of poor as in case of pro bono practice in western countries and finally the cost of court proceedings. Litigants also revealed their opinion towards the enforcement of judgements timely by the judicial system for enhancing the confidence of masses on the system. Furthermore, they held responsible the police department for the less reliability of court users towards the judicial services. However, litigants regarded the system most ineffective due to uncertainty in the hearing fixation and appeal system. Nonetheless the litigants have shown contentment towards the tangibles of the services consisting upon the clarity of court procedures, infrastructure, cleanliness, file management and the content of judgement.

8.2 SERVQUAL Analysis from Lawyers' Expectations and Perceptions

In this section the same analysis is repeated to examine the supply side of the services i.e., the areas highlighted by the lawyers showing the level of importance and satisfaction of each dimension as mentioned above. Below is given the SERVQUAL-GAP analysis and priority areas are determined against each item. The overall analysis from lawyers' perspective shows that highest service gap

causing dissatisfaction for early disposition of cases exists with case adjournments afterwards length of proceedings, judges/prosecutors' competency, and coordination with law enforcement agencies respectively.

Table 19: SERVQUAL Analysis from the survey of Lawyers

Satisfaction	Mean Score	Rank	Expectations	Mean Score	Rank	Gap	Priority
Court Automation	2.8	12	Court Automation	3.9	3	-1.1	5
Coordination of court staff with lawyers	2.7	15	Coordination of court staff with lawyers	3.16	15	-0.46	9
Judges'/prosecutors' professional competence	3.2	3	Judges'/prosecutors' professional competence	4.7	1	-1.5	3
Punctuality of hearings	2.93	8	Punctuality of hearings	3.31	9	-0.38	11
Clear and comprehensible judgements	3.05	7	Clear and comprehensible	3.11	17	-0.06	17
Decisions easy to enforce	3.27	2	Decisions easy to enforce	3.49	6	-0.22	14
Training to judges, lawyers and court staff	3.4	1	Training to judges, layers and court staff	3.67	4	-0.27	12
Satisfaction about Adjournments	1.67	18	Adjournments are required for proper decision	3.52	5	-1.85	1
ADR for speedy justice	3.19	4	ADR for speedy justice	3.37	8	-0.18	15
Coordination with Law enforcement agencies	3.16	5	Coordination with Law enforcement agencies	4.31	2	-1.15	4
Police Department working	2.75	14	Police Department working	3.19	14	-0.44	10
Forensic Department Working	2.35	16	Forensic Department Working	3.28	10	-0.93	6
Use of informal means by judges	2.91	9	Use of informal means by judges	2.76	18	0.15	18
Length of Proceedings	1.72	17	Length of Proceedings	3.28	10	-1.56	2
Complicated Court Procedures	3.11	6	Complicated Court Procedures	3.24	13	-0.13	16
Cost of court procedures	2.91	9	Cost of cost procedures	3.45	7	-0.54	7
Role of Media	2.89	11	Role of Media	3.13	16	-0.24	13
Impartiality of Judges	2.76	13	Impartiality of Judges	3.27	12	-0.51	8
Overall Satisfaction	**2.82**		**Overall Expectations**	**3.45**		**-0.63**	

'Ranks' are given in descending order. Average mean values are ranked to show the delivery of court services. i.e., highest value of rank shows highest satisfaction and lowest rank value shows lowest satisfaction area.

*** Priority is in ascending order i.e., '1' is showing top priority (Under delivering of services) and '20' is showing least priority (contended delivering of service).*

*** Top   Priority Low Priority*

Moreover, the average mean (2.82) of all parameters about satisfaction is less than the expectation towards the services required by the lawyers from the existing judicial system i.e., 3.45. The overall gap is -0.63 showing overpromising and discontentment with respect to the environment for the lawyers however this gap is less than litigants' evaluation about service quality i.e., -1.4. All this shows that litigants are more dissatisfied with judicial services are there is dire need to focus on correction actions for the removal of this service gap which will lead towards quicker disposition of cases and tackling the backlogs.

Table 20: Priority setting from the survey of Lawyers

Dimension	Parameters	Mean Score	Priority
Empathy	Cost of Court Procedures	-0.54	7
	Coordination of court staff with lawyers	-0.46	9
	Complicated Court Procedures	-0.13	16
Assurance	Decisions easy to enforce	-0.22	14
	Clear and comprehensible judgements	-0.06	17
	Length of Proceedings	-1.56	2
Reliability	Impartiality of Judges	-0.51	8
	Police Department	-0.44	10
	Forensic Department	-0.93	6
	Use of informal means by judges	0.15	18
Effectiveness	Satisfaction about Adjournments	-1.85	1
	Punctuality of hearings	-0.38	11
	Judges'/prosecutors' professional competence	-1.5	3
	Role of Media	-0.24	13
	Law enforcement Agencies	-1.15	4
	ADR for speedy justice	-0.18	15
Tangibles	Court Automation	-1.1	5
	Training to judges, lawyers and court staff	-0.27	12

Table 20 shows that to make judicial process more empathetic, system has to emphasize upon reducing the cost of court procedures. On the other hand, for enhancing the assurance and confidence in the judicial system, length of proceedings must be focused. The working of forensic Departments and the impartiality of judges is important to increase the reliability of judicial process. The effectiveness of the system is badly suffered from multiple adjournments, lack of judicial and prosecutors' professionalism and law enforcement agencies. In case of available tangibles and physical infrastructure, there is need to increase the automation of courts for speedier delivery of judicial services.

The comparison between the lawyers and litigants' analysis shows that litigants are of the opinion that judicial system is less compassionate towards poor and less effective in early case disposition due to delayed hearing and appeal system while the lawyers are also complaining about the under

delivering of services due to case adjournments, competency of judicial professionals and coordination between courts and law enforcement agencies. Hence this SERVQUAL-GAP Analysis shows the existing bottlenecks in the judicial system at district level and directing us the priority areas for both court users.

CONCLUSION AND POLICY RECOMMENDATIONS

9.1 Conclusion

The efficiency and effectiveness of judicial systems is one of the main points of interest in public sector administration, due to the beneficial effects of an efficient judicial system on the economic system. This study is particularly covering Punjab province for the efficiency analysis of the courts which is having largest number of districts and huge case pendency of civil cases as per the recorded official figures. Linear optimization method usually known as Data Envelopment Analysis (DEA) and a non-parametric frontier is used to measure the efficiency of 36 District courts of Punjab for the period 2020-21 and to distinguish between pure, technical and scale (in)efficiency and (in)efficiency due to the non-discretionary caseloads both in civil and criminal matters. By employing two output measures, 1) Disposal rate, and 2) Resolution index, the efficiency estimates are calculated however results with the later output measure are closer to the real situation of the district judicial system as this is incorporating both the demand and supply aspect of settlement of cases. According to the approach of resolution index, the most inefficient district is Lahore and the most efficient includes Khushab. However, this is due to the reason that the institutional arrangements are very much perfect therefore the clearance rate is high. The (in)efficiency depends on socio economic demographic as well which are somehow unable to quantify. For example, in Khushab and Rajanpur districts, case filing in courts is not the usual practice of people for the demand for justice, rather they have their own 'jirga system' where they prefer to resolve their matters through arbitration. Hence if the case institution is lesser then backlog log will not be there ultimately leading to decline in pendency. And this is the reason when our DEA model is replicated after adding 'institution' as the exogenous factor to see its impact on court performance, we have observed that the average efficiency declined from 0.51 to 0.028 (Table 16). Therefore, if Lahore is regarded as the most inefficient district productivity wise then this may be due to the size of the city, its population dynamics and income disparities which is causing increased rate of crime and corruption leading to more case filing and adding into backlogs. Hence this calls for increasing the capacities of existing courts in mega cities for catering to the demand for justice in the best possible way on the one hand while on the other side, this demands for better role of Law enforcement agencies to control the malpractices in the society.

For measuring the capacity of courts, scale efficiency is calculated, and it shows that all the district courts are operating in decreasing returns to scale which means that court size is too large to take full advantage of economies of scale and operates at supra-optimum scale size. All this demonstrates that courts are overly congested and therefore dispensation of justice is slow. The findings of the study showed that both the 'institution of cases' and 'pendency' in civil matters have played an intense regressive role as external factors in triggering the inefficiency of courts at district level compared to caseloads overall. In each case, the overall scale efficiency in both the civil and criminal matters is reduced showing the over utilization of resources without increase in court output. In other words, this clearly exhibits the inability of existing resources i.e., judges and administrative staff to clear the backlog.

It is assumed by common wisdom that courts deal with both the services provided to litigants and the resources used for that purpose. However, there are many non-controllables which act as

bottlenecks in the system both internally and externally and are not easily possible to be changed. Therefore, the efficiency analysis is incomplete unless the impression of these factors is captured because they affect the court performance externally paralyzing the whole working mechanism of the system.

From the efficiency analysis conducted above, three extremely inefficient districts are focused for conducting a survey from court users i.e., lawyers, litigants, and judges. Court performance indicators were designed to find out the factors affecting efficiency, quality of services, fairness, and integrity of the system. The findings of the survey reported that adjournments, conduct of lawyers, and behavior towards poor people is causing poor performance of the court. After a detailed graphical description of the survey, lastly a SERVQUAL analysis was done to highlight the priority areas for improvement in the judicial process. According to this GAP analysis, the findings showed that courts are less empathetic towards the poor both in terms of court fee and lawyer's fee and that's why they are unable to resolve their cases timely because of their inability to make payments. Behavior of lawyers is given the top priority by the litigants to make the system efficient and user friendly. When the litigants were asked about the specifications of court fee, lawyers fee, and travel cost for completing the judicia process of their cases, they highlighted that its lawyer's fee which is covering almost 55%[9] of their total expense in case of criminal cases and 43% for civil cases. Above all the most troubling stage during the trial has been the '**stage of evidence'** in both types of cases due to which number of hearings increased. The survey shows that the maximum '**age of pendency'** for civil cases from the sample was 37 years and for criminal matters, it was 9-10 years. The litigants have also showed their concern towards the less cooperation of 'police department' during the investigation process which is also causing a delaying factor in early disposal of cases. Nonetheless lawyers blamed the 'Forensic Department' for showing less coordination with courts for the delivery of speedier services. SERVQUAL analysis is based on five pillars and in case of each one, the Quality GAP between the expectations and satisfaction level of the court users is negative which shows that the specific industry is underdelivering the services and the customer of the services is uncontended due to overly promising. The same analysis was performed for the lawyers to know about their satisfaction level for the services provided them by the court administration. According to the lawyer's perspective, adjournments are the major cause of delays in clearing the backlog making the system less effective. They also highlighted that court automation is also performing not up to the expectations the users are having. Moreover, the findings of the survey showed that role of media is somehow damaging the sanctity of many court decisions due to exaggeration. About Alternative Dispute Settlement (ADR), both the litigants, lawyers and judges have showed strong positive response for avoiding delays in settlements. Judges showed disagreement for pre-trial detention of the cases and also regarded 'adjournments' one of the major causes of the delay and blamed ill-preparedness of lawyers, absence of witnesses and Bar strikes responsible for this.

9.2 Recommendations

Based on the findings, here are a few policy recommendations which can be helpful in improving the judicial process at lower district courts.

- According to the judges' perspective, disposal of cases is delayed due to excessive number of adjournments, and hearing and major cause of this is the non-appearance of the witnesses. Moreover, the lesser number of judges, ill-preparedness of lawyers and Bar strikes are also responsible for multiple hearings. There is a need to increase the capacity of existing courts by improving both the infrastructure availability and serving judges so that on average the clearance rate can be improved. Judges have recorded their positive opinion about court

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[9] Graphical expressions for cost estimates of both types of cases are given in Appendix J.

automation for informing about hearings to the litigants and lawyers and asserted that court automation is the source for increasing the judicial governance.

- As per the lawyers' community, again the main reason of delayed settlement of cases is the adjournments, political influence from external sources and lack of training of lawyer and judicial professionals which can really enhance the efficiency of the court systems at district level. Lawyers have also suggested assigning a penalty to multiple adjournments to avoid such delays and increase the turnover of the judges.

- Lastly, the survey opinion from the litigants is very much satisfactory in case of judges' performance, however they highlighted the inefficiency and lack of transparency in the behavior of supporting staff and lawyers which is to be corrected. Moreover, as per their experience, the coordination between courts and law enforcement agencies is to be made strong as the working of police and forensic departments have been found non-cooperative and less responsive during the proceeding of cases. Above all, cost of proceeding is beyond the capacity of a common man to fulfill the demands of lawyers and court fees., therefore they have suggested that the government should try to make such policies which could facilitate the poor people in bearing these expenses. This can only be possible if government gives some sort of financial/medical security to the lawyers doing private practice because this will boost their trust and confidence level upon the system, and they will become more compassionate towards such clients who are unable to pay heavy fees. In many western countries, pro bono culture[10] is also practiced facilitating such cases, hence our Judicial bodies should also forward sch kind of policy solutions to give protection both the lawyers and litigants while using the court services. Students in this profession at the early stage of their career can also be given exposure in this way which will provide them learning opportunity in the field. The government should also design such a policy that minimum pro bono cases must be given weightage for the elevation of judicial professionals in their career. To reduce the multiple hearings and adjournments, a maximum limit should be fixed by the government in collaboration with judicial authorities so that resolution time could be minimized. On the other side there must also be a set mechanism for lawyer's fees at different stages of proceedings both in civil and criminal cases. And there should be a check as well by the authorities in the form of penalty for exceeding the prescribed limits of fee. Above all major amendments are required to be made in CPC and CRPRC rules for the early disposal and to restrict the interim appeals as shown by a serious concern in judges' survey. The ideal example of such modification of laws can be observed in the case of '**Punjab Rented Premises Act 2009'** in which after the judgment of district court, no further appeal is provided for high court and supreme court. Using these practical solutions will definitely enhance the assurance and reliability of court services for litigants.

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[10] In the legal profession, free legal services that are provided by an advocate to an individual who is not capable of hiring a lawyer and paying its fee is termed as pro bono service. However, the State can offer waiver of court fees to such lawyers for to avoid any kind of personal monetary loss. Pro-bono cases can also be used as a marketing strategy for lawyers and offer recognition, and increased clientele to the lawyers, and help them to earn a reputation. Even though pro bono cases do not allow the lawyers to earn enough money, it certainly offers several benefits and opens numerous doors of opportunities for them. If a lawyer represents a pro bono case that is highly publicized, then the lawyer also earns a lot of reputation and fame, thus increasing the possibility of future clients. If the lawyer wins the pro bono case, he receives an appraisal, and more people are willing to hire him.

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	Research Objectives	Research Questions	Data Sources	Data Analysis
1	To evaluate the judicial efficiency of lower courts (District Courts) by examining its performance and calculating a resolution index.	Does huge caseload affects the court efficiency/productivity in Lower Courts?	**Secondary data analysis:** This will be extracted from Judicial Statistics of Pakistan and from the website of High Courts	1. Situational Analysis through Synthesizing the information. 2. Quantitative using Data Envelopment Analysis (DAE)
2	To explore the bottlenecks faced by the District Courts of Punjab which might be causing inefficiencies in its judicial functioning.	What are the internal and external factors causing inefficiencies in the district court proceedings?	**Primary data analysis:** At first stage, Interviews were conducted for extracting the themes of questionnaire. At second stage, items of questionnaire will be generated from those these and sub-themes.	1. Graphical Analysis of the survey
3	To investigate the differences between perceptions of court users on perceived outcomes and actual service delivery by the judicial operators	Are Court users satisfied by the delivery of justice?	**Primary data analysis:** A "Customer Satisfaction Survey of Judicial Services" from litigants/clients, lawyers, magistrates and officials of the District courts will be conducted to compare the difference between the perceptions of expected services (i.e. easy and speedy justice in the form of low costs incurred to the litigants) and the actual delivery of the services.	1. Quantitative Analysis based on survey using SERVQUAL GAP Methodology

Appendix B

First Stage of Analysis for conducting survey: Themes for Interviews
*Name (Optional)……………………………………………………………………………………………………
* Phone No. (Optional)…………………………………………………………………………………………..
* E-mail ID (Optional)…………………………………………………………………………………………..
* Your profession/category
(a) Advocate………………………………………………………………………………(Designation)

(b) Court Staff...(Designation)
(c) Judge...(Designation)
(d) Police..(Designation)
(e) Court case client..(Profession)
* Work experience...

1. What aspects of work culture in courts can be improved?
2. Tell the instances of work that disturb you the most.
3. What is a good court, in your opinion?
4. How are courts different from each other?
5. How do you distinguish a good lawyer from a bad lawyer?
6. What are the reasons for the adjournments?
7. How can adjournment problems be solved?
8. What is your opinion about the state of accountability of judges?
9. What is your opinion about transparency in procedures and decision-making?
10. Do people easily get justice from this court?
11. Why do people want to run away from the courts?
12. Any other points which you want to mention?
13. What points can be taken as indicators of legal performance and productivity?
14. What points can be taken as indicators of legal culture?

Appendix C

Case Wise Situational Analysis of Lahore District
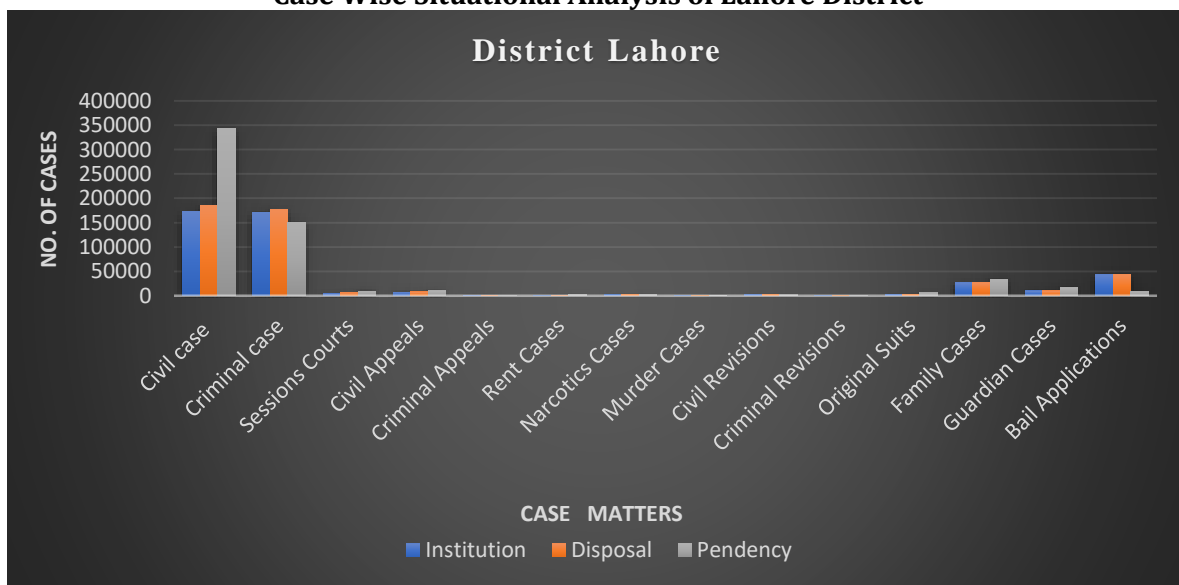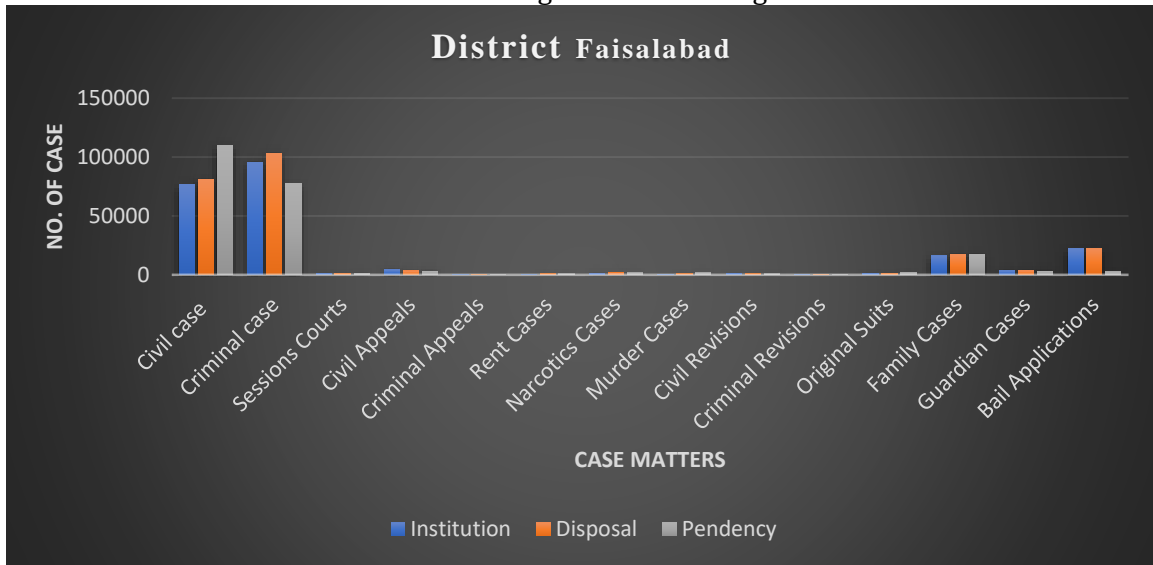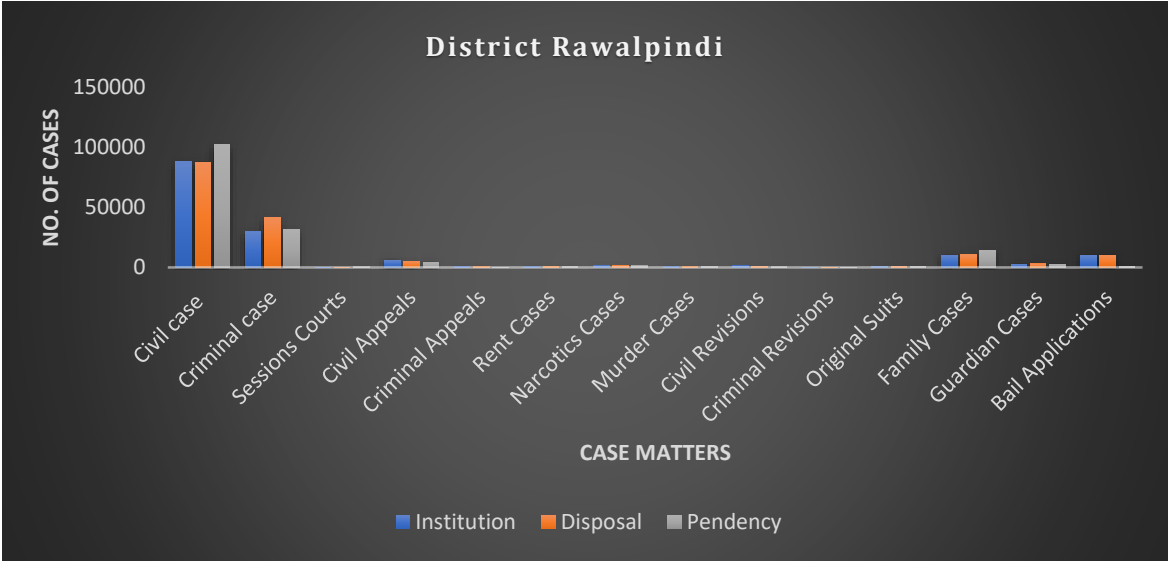

Source: Author's own using dataset from High Court Lahore
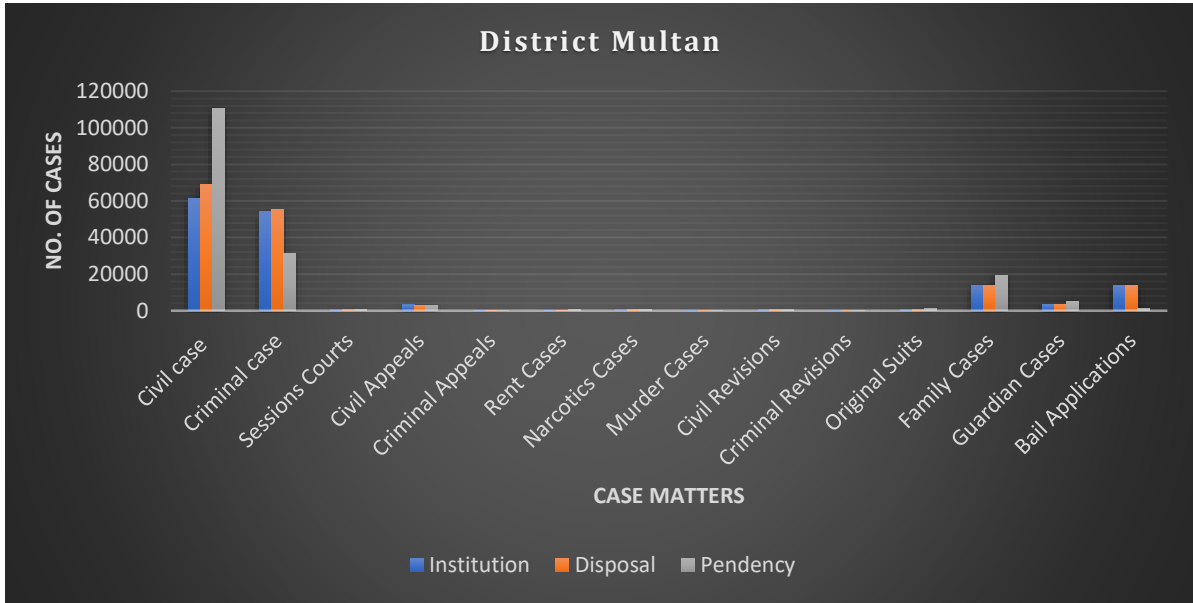
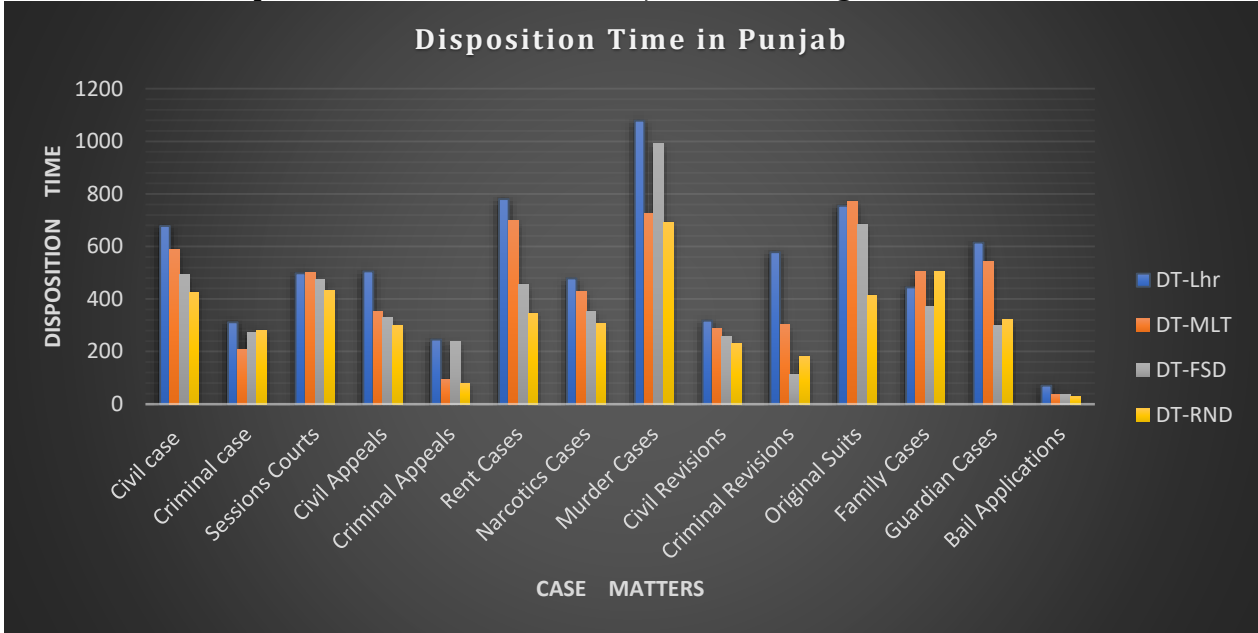Source: Author's own using dataset from High Court Lahore

Source: Author's own using dataset from High Court Lahore

Source: Author's own using dataset from High Court Lahore

Appendix D

**Disposition Time of cases in Punjab's Most Congested Districts**

Source: Author's own using dataset from High Court Lahore

Appendix E

Models	CRS_1	VRS_1	CRS_2	VRS_2	CRS_3	VRS_3	CRS_4	VRS_4
CRS_1	1.0000							
VRS_1	0.7538*	1.0000						
CRS_2	0.9365*	0.6038*	1.0000					
VRS_2	0.9573*	0.6504*	0.9505*	1.0000				
CRS_3	0.9723*	0.6862*	0.9219*	0.9417*	1.0000			
VRS_3	0.9573*	0.6504*	0.9505*	1.000*	0.9417*	1.0000		
CRS_4	0.9566*	0.6262*	0.9838*	0.9575*	0.9517*	0.9575*	1.0000	
VRS_4	0.9628*	0.6563*	0.9559*	0.9970*	0.9490*	0.9970*	0.9670*	1.0000

"*" Shows significance at 5% level.

Fig: Scatter plot between estimated models with RI as output w.r.t Caseloads in civil and criminal cases.
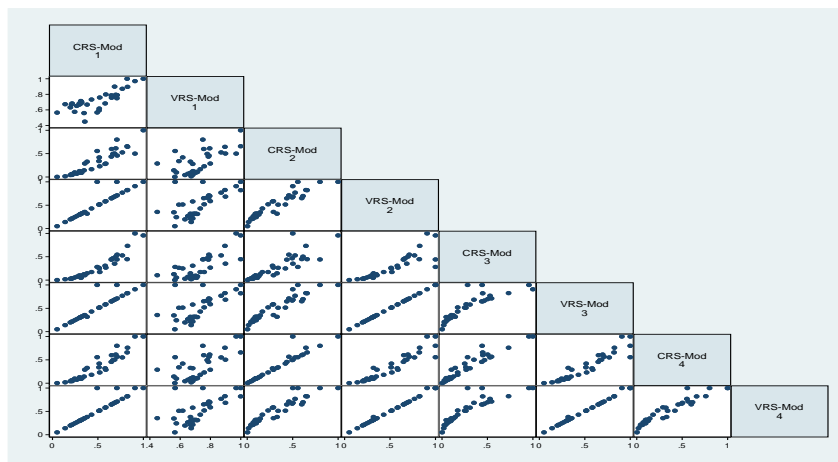
Source: Author's own based on estimation

Models	CRS_1	VRS_1	CRS_2	VRS_2	CRS_3	VRS_3	CRS_4	VRS_4
CRS_1	1.0000							
VRS_1	0.8878*	1.0000						
CRS_2	---------	--------	1.0000					

VRS_2	0.7284*	0.7176*	---------	1.0000			
CRS_3	---------	---------	0.7785*	---------	1.0000		
VRS_3	0.9887*	0.9053*	---------	0.7535*	---------	1.0000	
CRS_4	---------	---------	0.9723*	---------	0.8449*	--------	1.0000
VRS_4	0.7232*	0.7165*	----------	0.9773*	---------	0.7571*	---------	1.0000

Fig: Scatter plot between estimated models with Disposal rate as output w.r.t Caseloads in civil and criminal cases.
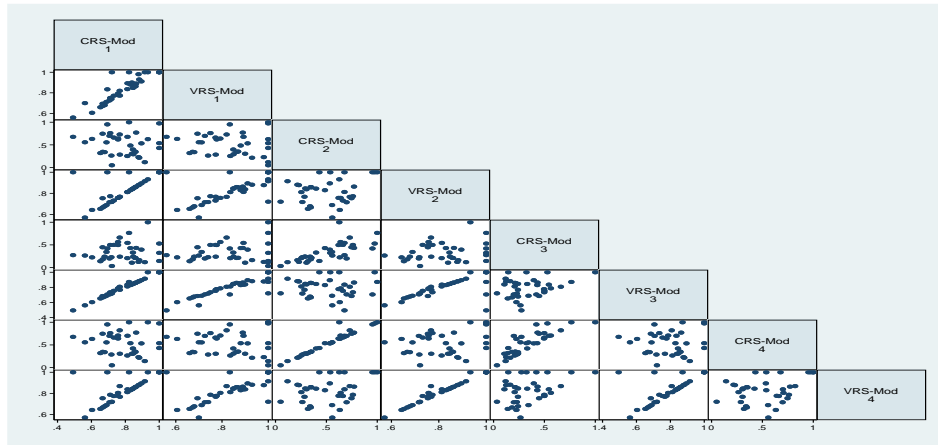
Source: Author's own based on estimation

Models	CRS_1	VRS_1	CRS_2	VRS_2	CRS_3	VRS_3	CRS_4	VRS_4
CRS_1	1.0000							
VRS_1	0.7538*	1.0000						
CRS_2	0.9530*	0.6261*	1.0000					
VRS_2	1.0000*	0.7538*	0.9530*	1.0000				
CRS_3	0.9754*	0.6895*	0.9557*	0.9754*	1.0000			
VRS_3	1.0000*	0.7538*	0.9530*	0.1000*	0.9754*	1.0000		
CRS_4	0.9754*	0.6895*	0.9557*	0.9754*	1.0000*	0.9754*	1.0000	
VRS_4	1.0000*	0.7538*	0.9530*	1.0000*	0.9754*	1.0000*	0.9754*	1.0000

Fig: Scatter plot between estimated models with Resolution index as output w.r.t Overall pendency as exogenous factor (Four Models)
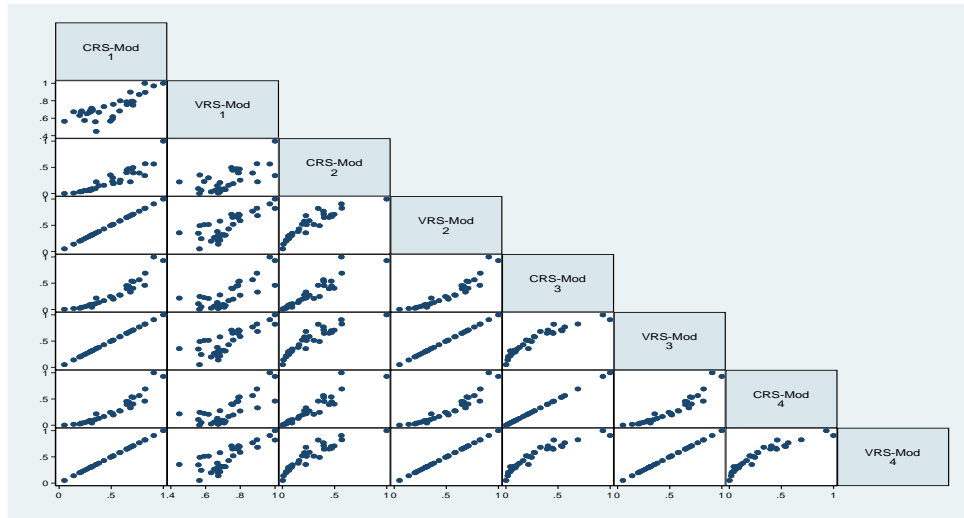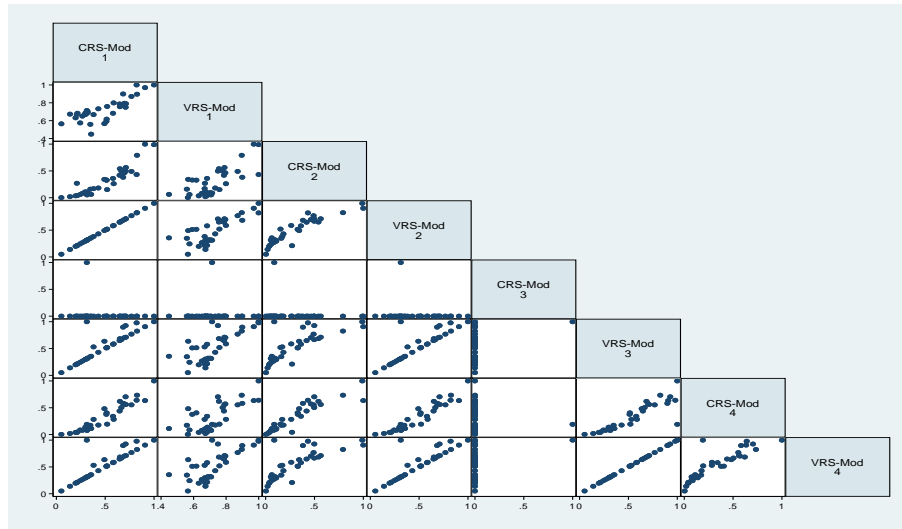
Source: Author's own based on estimation

Models	CRS_1	VRS_1	CRS_2	VRS_2	CRS_3	VRS_3	CRS_4	VRS_4
CRS_1	1.0000							
VRS_1	0.7538*	1.0000						
CRS_2	0.9142*	0.6650*	1.0000					
VRS_2	1.0000*	0.7538*	0.9142*	1.0000				
CRS_3	----------	----------	---------	---------	1.0000			
VRS_3	0.9047*	0.7267*	0.8239*	0.9047*	---------	1.0000		
CRS_4	0.9577*	0.6775*	0.9284*	0.9577*	---------	0.9292*	1.0000	
VRS_4	0.9047*	0.7267*	0.8239*	0.9047*	---------	1.0000*	0.9292*	1.0000

Fig: Scatter plot between estimated models with Resolution index as output w.r.t Institution as exogenous factor (Four Models)

Source: Author's own based on estimation

Descriptive Statistics of judges Survey					
	N	Minimum	Maximum	Mean	Std. Deviation
Number of Questionnaires	301	1	326	97.3654	84.95767
No. of cases that has been resolved during last one year	278	2	350000	5920.263	33089.57
No. of cases at hand but pending	276	0	9000	1132.188	1168.35

Source: Author's own deduced from the survey of Litigants

Descriptive Statistics of Lawyer's Survey					
	N	Minimum	Maximum	Mean	Std. Deviation
Approximate number of cases you have registered since the start of your career?	3605	1	70000	842.85	2401.281
No. of cases that has been resolved.	3506	0	91000	545.7661	2216.101
No. of cases pending as caseload.	3526	0	21000	173.4728	550.3351

Source: Author's own deduced from the survey of Litigants

Descriptive Statistics of Litigants' survey					
	N	Minimum	Maximum	Mean	Std. Deviation
Gender 1) Male	**3772**	-	-	-	-

2) Female	54%				
	30%				
Current Income	**2977**	23	800000	52015.68	51143.22
What type of case you filed?	3774	-	-	-	-
1) Civil	65%				
2) Criminal	20%				
You participated in the court proceedings in the capacity of:	**3790**	-	-	-	-
1) Complainant,	7.5%				
2) Accused,	12.4%				
3) Plaintiff	46.8%				
4) Defendant	18.7%				
Case type is defined in 2 categories i.e., civil and criminal. Capacity is defined in 4 ways i.e., Complainant, Accused, Defendant and Plaintiff					

Source: Author's own deduced from the survey of Litigants

Comparative descriptive statistics for <u>age</u> analysis of judges, litigants, and lawyers

Age brackets	Judges	Litigants	Lawyers
	Percentage		
Under 30	43.5	20	32.1
031-40 years	44.5	37.6	44.8
041-50 years	7.6	24.1	16.1
051-60 years	1	10.7	4.9
Above 60 years	0.7	7.6	1.3

Source: Author's own deduced from the survey of Litigants

Comparative descriptive statistics of <u>Field of expertise</u> analysis of judges, litigants and lawyers

Field of expertise	Judges	Lawyers
	Percentage	
Civil	33.6	32.6
Criminal	40.5	25.4
Both	20.3	8.3
other[11]	2.7	32.2

Source: Author's own deduced from the survey of Litigants

Comparative descriptive statistics for the <u>experience of judges and lawyers</u> as Bar Member

Experience as bar member	Judges	Lawyers

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[11] 'Other' includes rent cases, criminal revision, civil revision, bail applications.

	Percentage	
less than 5 years	54.8	30.1
05-10 years	27.6	38.2
011-15 years	4.7	17
016-20 years	0.3	7.5
more than 20 years	1	5.3

Source: Author's own deduced from the survey

Appendix I

Sample of Judges			
	Population		Stratified Random Sample
Districts	Frequency	%	Frequency %
Lahore	251	50%	150
Rawalpindi	81	16%	50
Multan	66	14%	40
	499	100%	**240**

Sample of lawyers			
	Population		Stratified Random Sample
Districts	Frequency	%	Frequency
Lahore	12970	40%	2000
Rawalpindi	7212	22%	1112
Multan	5108	16%	788
	32373	100%	**3900**

Total litigants			
	Population		Stratified Random Sample
Districts	Frequency	%	Frequency
Lahore	225791	51%	2560
Rawalpindi	72150	16%	820
Multan	63586	14%	720
	441300	100	**4100**

Sample of litigants

	Population		Stratified Random Sample	
Districts	Civil	Criminal	Civil Sample	Criminal Sample
Lahore	164499	61292	1864	693
Rawalpindi	53702	18448	608	209
Multan	47853	15733	542	178
	317588	123712	**3014**	**1080**

<u>**APPENDIX J**</u>
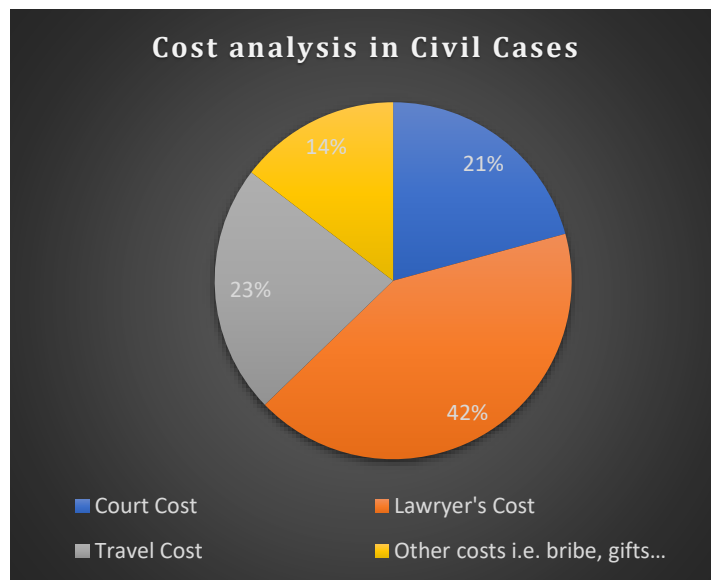
Source: Author's own deduced from the survey of Litigants

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