Chapter V

Data Analysis and Interpretation

5.1 Strikes and Lockouts

In any Industrial enterprise the co-operation between labour and capital is quite fundamental for its success, in spite of the fact that they have interests apparently contrary to each other. They also have different means and weapons in their arsenal to communicate and seek redressal of their grievances and protect their interests. The accepted democratic weapons in their hands are strikes and lock-outs. Just as strike is ammunition available to employees for putting pressure on the management to accede to their demands, lock-out is also a weapon in the hands of the employers to induce the workers by a coercive process to accede to their point of view and to deny their demands. In the struggle between labour and capital, as the weapon of strike is available to the workers and is sometimes used by them, so is the weapon of lock-out available to the employer and many times used by him. Both strike and lockout has statutory sanctity under the Industrial Disputes Act, 1947.

To study the effectiveness of strikes and lockouts, first, the issues involved in strikes and lockouts are studied. The issues involved in strikes and lockouts are broadly classified into four categories:

1. Monetary issues,
2. Personnel issues,
3. Economic Viability and
4. Other issues.

Charter of demands regarding wages, bonus, increments etc. are classified as Monetary issues. The wages and other benefits of the workers are usually settled

through collective bargaining between the trade unions and the management. Usually the process starts when the trade unions submit their charter of demands before the employer. They meet together to amicably arrive at a mutually agreed settlement. When there is a stalemate or either parties become adamant, strike or lockout may ensue. In such circumstances, the parties may also approach the conciliation machinery. During conciliation also such situations may arise and either of the parties may go for strike or lockout to put pressure on the other party. Apart from wages bonus, fringe benefits etc. also fall under this category.

Personnel issues are those issues which are related to non-monetary personnel issues of the organization. It may include recruitment, transfer, promotion, training, change of shift, making temporary workers permanent, redeployment of workers, indiscipline etc. Most of the disputes under this category involves suspension, dismissal etc.

Economic viability is a major cause of lockouts. However, apart from loss of economic viability other related factors like technological obsolescence, Management's intention of reducing working compliments etc. are also included in this category. Many of the lockouts under this category is disguised closure. It is practically impossible for a large industry to declare closure as it requires permission from the government and the government usually does not give permission for closure. So, the management takes the easier route of declaring lockout. Sometimes the management declares lockout on this ground of economic viability to put pressure on the trade unions to accept their proposals of rationalising or downsizing of manpower.

The unclassified issues are grouped together as other issues. However, the issues included under this category may have elements of one or more of other three issues.

Year wise data, since 1991 to 2015, regarding issues involved in strikes as per above classification in West Bengal are given below:

Table 5.1 Issues involved in Strikes

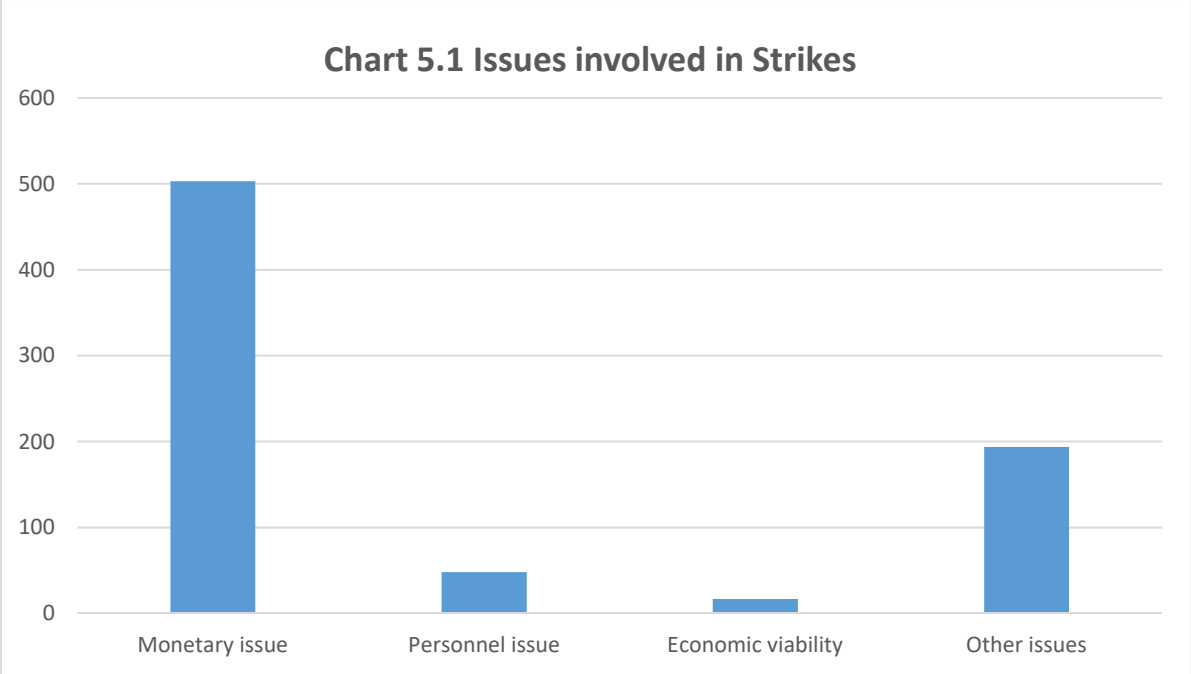
Year	Total Strikes	Strikes due to Monetary Issues (SM)	Strikes due to Personnel Issues (SP)	Strikes due to Economic Viability (SEV)	Strikes due to Other Issues (SO)
1991	021	005	06	00	10
1992	029	023	01	00	05
1993	020	008	05	00	07
1994	012	006	01	01	04
1995	033	004	12	00	17
1996	016	002	11	00	03
1997	024	008	04	00	12
1998	025	014	04	00	07
1999	034	014	01	11	08
2000	026	016	00	00	10
2001	020	010	02	00	08
2002	029	007	01	00	21
2003	033	009	00	02	22
2004	020	006	00	01	13
2005	026	013	00	00	13
2006	024	011	00	02	11
2007	011	004	00	00	07
2008	012	007	00	00	05
2009	010	006	00	00	04
2010	017	011	00	00	06
2011	005	004	00	00	01
2012	001	001	00	00	00
2013	000	000	00	00	00
2014	314	314	00	00	00
2015	000	000	00	00	00
Total	**762**	**503 (66.01%)**	**48 (6.30%)**	**17 (2.23%)**	**194 (25.46%)**

Source: Computed from data published in Labour in West Bengal, Labour Department, Government of West Bengal (Various Years)

Table 5.2 Descriptive Statistics of Issues involved in Strike

	Total Strikes	***Strikes due to Monetary Issues (SM)***	***Strikes due to Personnel Issues (SP)***	***Strikes due to Economic Viability (SEV)***	***Strikes due to Other Issues (SO)***
Mean	30.48	20.12	1.92	0.68	7.76
Standard Error	11.98862	12.29205	0.675574	0.446169	1.234612
Median	20	7	0	0	7
Mode	20	6	0	0	0
Standard Deviation	59.94311	61.46023	3.377869	2.230844	6.17306
Sample Variance	3593.177	3777.36	11.41	4.976667	38.10667
Kurtosis	23.38715	24.56954	3.869778	21.12021	0.225285
Skewness	4.763172	4.938419	2.098405	4.477034	0.765661
Range	314	314	12	11	22
Minimum	0	0	0	0	0
Maximum	314	314	12	11	22
Sum	762	503	48	17	194
Count	25	25	25	25	25

Source: Calculated by the researcher



The above data reveals that during the period under study, 762 cases of strikes were reported of which 66.01% were due to monetary issues like wages or bonus, 6.30 % were due to personnel issues like dismissal, retrenchment etc., only 2.23% were due to economic viability and 25.46% were due to other unclassified causes. After 2006, there was a sharp fall in the number of strikes which further dipped after 2011.

Just as strike is a weapon in the hands of the workers' lockout is a weapon in the hands of the management. Year wise data, since 1991 to 2015, regarding issues involved in lockouts in West Bengal are given below:

Table 5.3 Issues involved in Lockouts

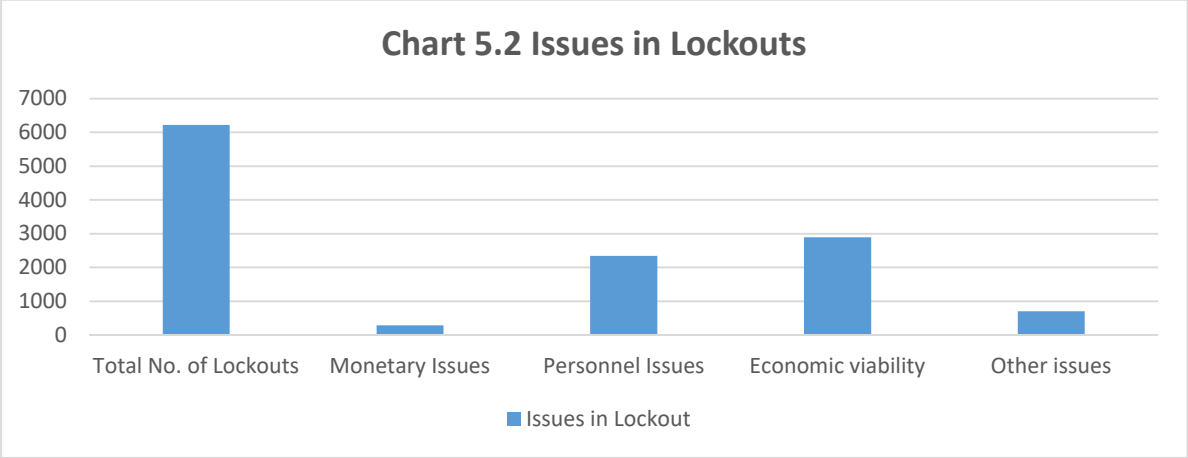
Year	Total Lockout	Lockout due to Monetary issues (LM)	Lockout due to Personnel issues (LP)	Lockout due to Economic Viability (LEV)	Lockout due to Other issues (LO)
1991	188	14	055	093	26
1992	207	17	075	088	27
1993	188	12	073	069	34
1994	121	06	047	047	21
1995	136	03	063	031	39
1996	128	02	059	040	27
1997	150	02	065	035	48
1998	207	04	095	056	52
1999	256	11	061	161	23
2000	274	21	089	143	21
2001	305	14	095	167	29
2002	342	10	108	184	40
2003	399	22	147	199	31
2004	357	11	156	167	23
2005	359	10	146	172	31
2006	352	10	132	173	37
2007	268	10	112	119	27
2008	262	16	102	122	22
2009	263	13	101	122	27
2010	269	12	115	119	23
2011	276	18	107	124	27
2012	294	16	116	140	22
2013	297	15	107	154	21
2014	320	16	117	167	20
2015	000	00	000	000	00
Total	**6218**	**285 (4.58%)**	**2343 (37.68%)**	**2892 (46.51%)**	**698 (11.23%)**

Source: Computed from data published in Labour in West Bengal, Labour Department, Government of West Bengal (Various Years)

Table 5.4 Descriptive Statistics of Issues involved in Lockout

	Total Lockout	*Lockout due to Monetary issues (LM)*	*Lockout due to Personnel issues (LP)*	*Lockout due to Economic Viability (LEV)*	*Lockout due to Other issues (LO)*
Mean	248.72	11.4	93.72	115.68	27.92
Standard Error	18.57961	1.184624	7.157169	11.21958	2.052576
Median	268	12	101	122	27
Mode	188	10	95	167	27
Standard Deviation	92.89803	5.923119	35.78584	56.09792	10.26288
Sample Variance	8630.043	35.08333	1280.627	3146.977	105.3267
Kurtosis	0.628707	-0.50336	0.577375	-0.90112	2.21168
Skewness	-0.76234	-0.30338	-0.48282	-0.4951	0.091199
Range	399	22	156	199	52
Minimum	0	0	0	0	0
Maximum	399	22	156	199	52
Sum	6218	285	2343	2892	698
Count	25	25	25	25	25

Source: Calculated by the researcher



The above data reveals that during the period under study, 6218 cases of lockouts were reported of which 4.58% were due to monetary issues like wages or bonus, 37.68 % were due to personnel issues like dismissal, retrenchment etc., 46.51% were

due to economic viability and 11.23% were due to other unclassified causes. It can also be seen that number of lockouts were lowest during the three-year period from 1994 to 1996 then steadily increased reaching its peak in 2003. During next three years it fell and stabilised. Similar to the trend shown by strikes, lockouts also drastically decreased after 2006 and then slowly increased till 2013. There was a significant fall of number of lockouts involving economic viability after 2006 and lockouts due to indiscipline also fell after 2006. Lockouts involving economic viability again started increasing after 2011.

5.1.1 Ross Hartman Ratio

However, both strikes and lockouts are not one-dimensional. The significance of a strike or lockout depends on its duration, number of workers involved and mandays lost. Both success and significance of strikes and lockouts depend on these factors. Duration of strike or lockout tests the resilience of the parties. It is difficult for the workers to sustain themselves if the strike or lockout continues for long. If the duration of a strike or lockout is too long it leads to virtual closure and both the parties, look for alternatives. Again, as the number of workers involved in a strike or lockout increases its nature and significance changes. It may lead to law and order problem, different political parties may get involved, it gets media attention and naturally government puts pressure on the parties to resolve it. Both these factors are combined in mandays lost.

For studying the duration, coverage and time loss of strikes and lockouts Ross and Hartman's[1] approach has been adopted.

According to this approach, there are three measures of strike or lockout:

[1] A.M. Ross and P.T. Hartman, Changing Patterns of Industrial Conflicts, New York: Wiley, 1960

Duration Ratio: Calculated by no. of mandays lost divided by workers involved

Coverage Ratio: Calculated by workers involved divided by no. of strikes/lockouts

Time Loss Ratio: Calculated by no. of mandays lost divided by no. of strikes/lockouts

Duration Ratio measures the average duration of strike or lockout. Coverage ratio measures average number of workers involved in strike or lockout and time loss ratio measures the average loss of mandays per strike or lockout.

Ross Hartman Ratio on Strike

Table 5.5 Ross Hartman Ratio on Strike

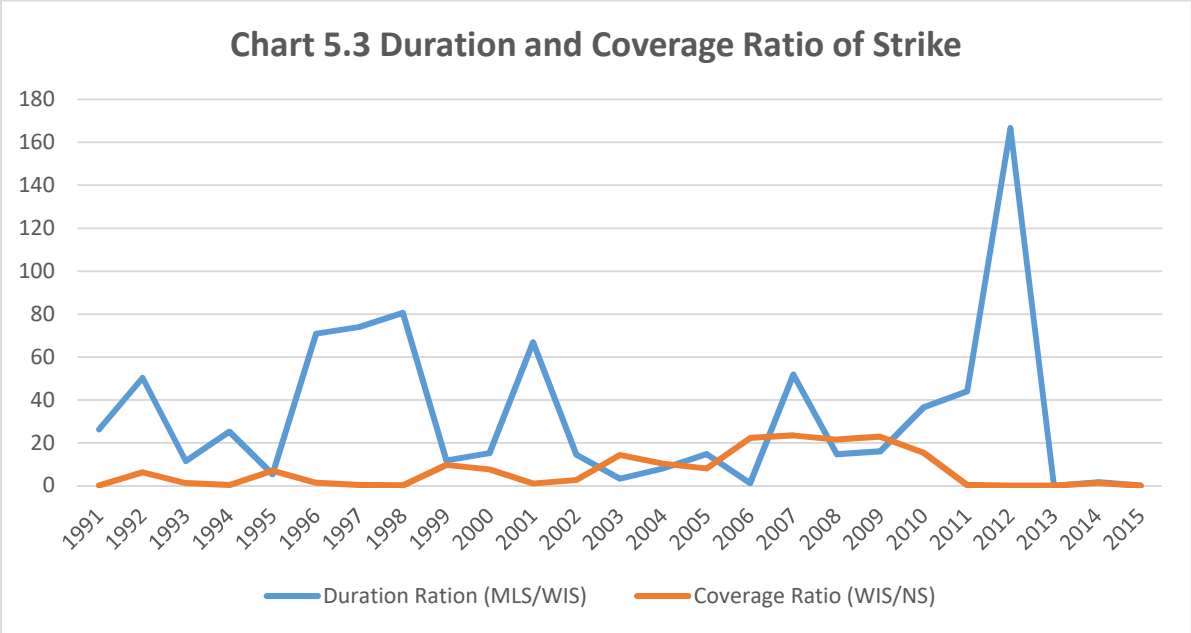
Year	Mandays lost in strike in thousand (MLS)	Workers involved in strike in thousand (WIS)	Number of strike (NS)	Duration Ratio (MLS/WIS)	Coverage Ratio (WIS/NS)	Time loss ratio (MLS/NS)
1991	00080	003.05	021	026.23	00.15	0003.81
1992	09300	184.78	029	050.33	06.37	0320.69
1993	00320	027.69	023	011.56	01.20	0013.91
1994	00140	005.55	015	025.23	00.37	0009.33
1995	01250	234.00	033	005.34	07.09	0037.88
1996	01670	023.55	017	070.91	01.39	0098.24
1997	00620	008.37	029	074.07	00.29	0021.38
1998	00220	002.73	025	080.59	00.11	0008.80
1999	03900	330.25	034	011.81	09.71	0114.71
2000	03110	204.48	027	015.21	07.57	0115.19
2001	01370	020.50	020	066.83	01.03	0068.50
2002	01190	082.07	030	014.50	02.74	0039.67
2003	01550	458.77	032	003.38	14.34	0048.44
2004	01660	205.52	020	008.08	10.28	0083.00
2005	03110	210.53	026	014.77	08.10	0119.62
2006	00240	200.58	009	001.20	22.29	0026.67
2007	13350	257.67	011	051.81	23.42	1213.64
2008	03800	258.03	012	014.73	21.50	0316.67
2009	04040	252.13	011	016.02	22.92	0367.27
2010	09600	262.74	017	036.54	15.46	0564.71
2011	00060	001.36	005	044.12	00.27	0012.00
2012	00005	000.03	001	166.67	00.03	0005.00
2013	00000	000.00	000	000.00	00.00	0000.00
2014	00615	375.29	314	001.64	01.20	0001.20
2015	00000	000.00	000	000.00	00.00	0000.00

Source: Computed from data published in Labour in West Bengal, Labour Department, Government of West Bengal (Various Years)

Table 5.6 Descriptive Statistics of Ross Hartman Ratio of Strike

		Workers involved in strike in thousand (WIS)	*Number of strike (NS)*	*Duration Ratio (MLS/WIS)*	*Coverage Ratio (WIS/NS)*	*Time loss ratio (MLS/NS)*
Mean	2448	144.3868	30.44	32.4628	7.1132	144.4132
Standard Error	690.6203	28.01386	11.99848	7.555149	1.653308	52.87539
Median	1250	184.78	20	15.21	2.74	39.67
Mode	3110	0	29	0	1.2	0
Standard Deviation	3453.102	140.0693	59.99242	37.77575	8.266539	264.3769
Sample Variance	11923910	19619.41	3599.09	1427.007	68.33567	69895.17
Kurtosis	3.835512	-0.84571	23.31454	5.604451	-0.42535	11.33923
Skewness	2.045837	0.478303	4.752728	2.08397	0.974683	3.153771
Range	13350	458.77	314	166.67	23.42	1213.64
Minimum	0	0	0	0	0	0
Maximum	13350	458.77	314	166.67	23.42	1213.64
Sum	61200	3609.67	761	811.57	177.83	3610.33
Count	25	25	25	25	25	25

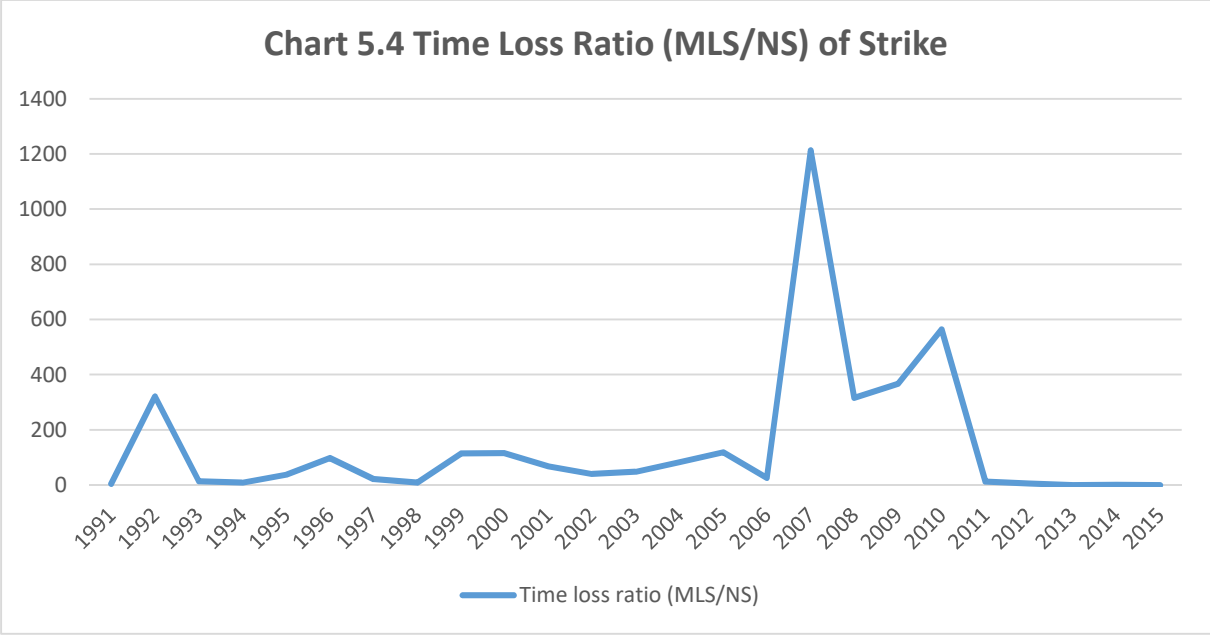
Source: Calculated by the researcher



The chart reveals that the coverage ratio gradually increased from 1999 and was maximum from 2006 to 2009 after which it gradually declined.

There is wide fluctuation in duration ratio with peaks in 1992, 1996 to 1998, 2001, 2007 and then in 2011and 2012.

Duration ratio was quite high in 1992, then comparatively low for the next three years (1993, 1994, 1995) followed by three consecutive high duration ratio (1996,1997,1998). It again peaked in 2001 and then was low for next five years (2002 to 2006). It again peaked in 2007 but was low for next two years (2008, 2009). It was moderately high in 2010 and 2011 but reached an all-time high in 2012. Coverage Ratio measures the average number of workers involved in strikes. Coverage Ratio was moderately high during 2003 and 2004. From 1991 to 2002, it was quite low except in 1992, 1999 and 2000. However, from 2006 to 2010 the coverage ratio suddenly increased which means more workers were involved in the strikes which in turn mean large organizations were mostly affected by it.



Time loss ratio peaked just after liberalisation in 1992 and then again from 2007 to 2010 after which it became almost nil. Time loss ratio measures average mandays loss for strikes. It takes into account both the duration of strikes and the number of workers involved. Time loss ratio was very high in 1992 which was right after the announcement of new economic policy. Then it was lowered and reached its lowest in 1998. It was moderately high in 1999 and 2000. It was moderate in next four years i.e., from 2001 to 2004. In 2005 it spiked though again in 2006 it was low. Interestingly, highest time loss was recorded in 2007. For next three years i.e., from 2008 to 2010 it decreased comparatively but remained quite high. It became negligible from 2011 onwards.

The trends in all these three ratios reflect the significance of external political situation in strikes.

Ross Hartman Ratio of lockout

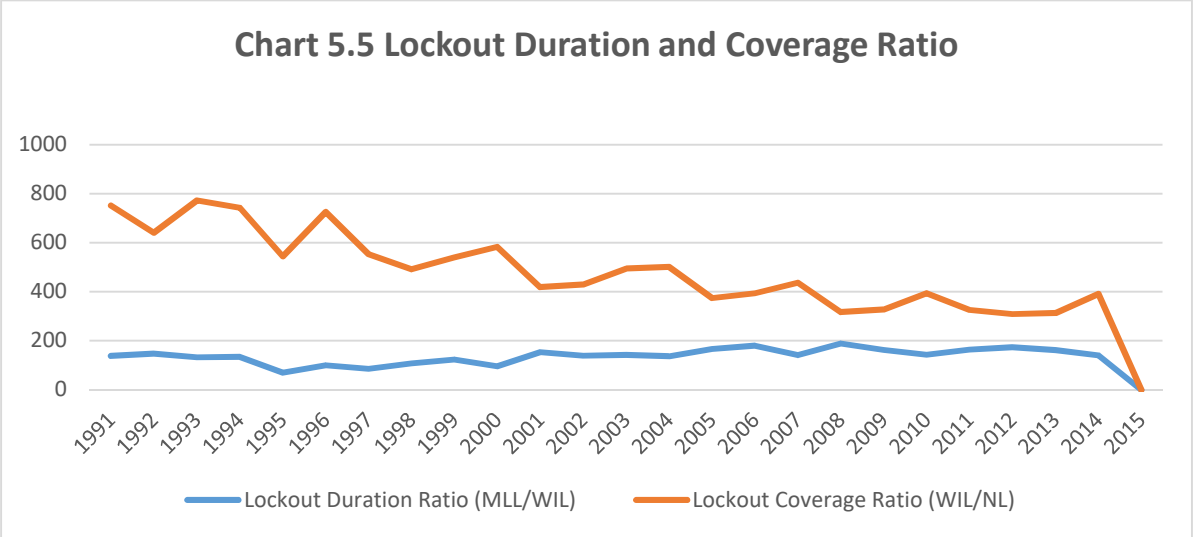
Table 5.7 Ross Hartman Ratio of lockout

Year	Mandays Lost in lockout (MLL)	Workers involved in lockout (WIL)	No. of Lockout (NL)	Lockout Duration Ratio (MLL/WIL)	Lockout Coverage Ratio (WIL/NL)	Lockout time loss ratio (MLL/NL)
1991	19970	144.42	192	138.28	752	104010
1992	20340	137.49	214	147.94	642	095047
1993	19180	144.57	187	132.67	773	102567
1994	12730	094.50	127	134.71	744	100236
1995	05250	074.14	136	070.81	545	038603
1996	10470	104.62	144	100.08	727	072708
1997	07640	089.20	161	085.65	554	047453
1998	11350	104.98	213	108.12	493	053286
1999	17770	142.72	264	124.51	541	067311
2000	16060	167.00	286	096.17	584	056154
2001	19880	129.42	309	153.61	419	064337
2002	20680	148.65	346	139.12	430	059769
2003	24810	173.77	351	142.77	495	070684
2004	24380	177.75	354	137.16	502	068870
2005	22330	133.71	357	167.00	375	062549
2006	18750	104.44	265	179.53	394	070755
2007	17140	120.59	276	142.13	437	062101
2008	15700	082.69	260	189.87	318	060385
2009	14320	087.88	268	162.95	328	053433
2010	15190	105.89	269	143.45	394	056468
2011	14870	090.11	276	165.02	326	053877
2012	15700	090.75	294	173.00	309	053401
2013	15030	093.10	297	161.44	313	050606
2014	17620	125.33	320	140.59	392	055063
2015	00000	000.00	000	000.00	000	000000

Source: Computed from data published in Labour in West Bengal, Labour Department, Government of West Bengal (Various Years)

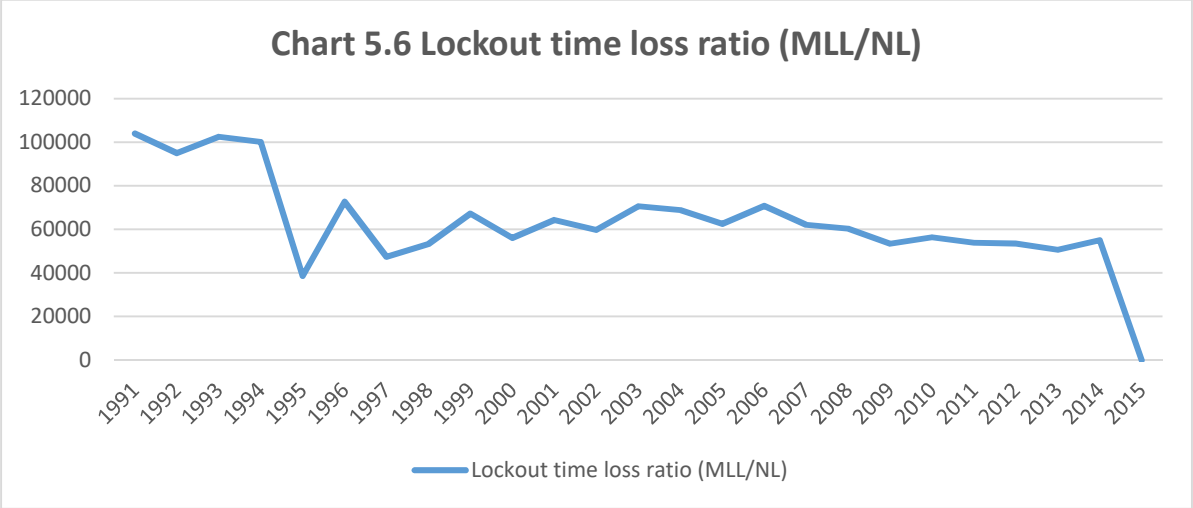
Table 5.8 Descriptive Statistics of Ross Hartman Ratio of Lockout

	Mandays Lost in lockout (MLL)	*Workers involved in lockout (WIL)*	*No. of Lockout (NL)*	*Lockout Duration Ratio (MLL/WIL)*	*Lockout Coverage Ratio (WIL/NL)*	*Lockout time loss ratio (MLL/NL)*
Mean	15886.4	114.7088	246.64	133.4632	471.48	63186.92
Standard Error	1150.435	7.614181	17.2027	8.050895	35.17358	4362.701
Median	16060	105.89	268	140.59	437	60385
Mode	15700	#N/A	276	#N/A	394	#N/A
Standard Deviation	5752.174	38.0709	86.01351	40.25448	175.8679	21813.5
Sample Variance	33087507	1449.394	7398.323	1620.423	30929.51	4.76E+08
Kurtosis	1.348933	2.148793	1.280097	3.973146	0.93356	2.388504
Skewness	-0.96822	-0.78696	-1.03277	-1.64451	-0.25955	-0.27771
Range	24810	177.75	357	189.87	773	104010
Minimum	0	0	0	0	0	0
Maximum	24810	177.75	357	189.87	773	104010
Sum	397160	2867.72	6166	3336.58	11787	1579673
Count	25	25	25	25	25	25



The lockout duration ratio gradually increased over the study period but the coverage ratio steadily declined. Lockout duration ration measures the average duration of

lockouts and lockout coverage ratio measures average number of workers affected by lockouts. During the period under study there is not much fluctuation in lockout duration ratio and it veered between 71 days and 190 days. However, the lockout coverage ratio steadily declined over the years. From around 750 it came down around 300. On the one hand it may reflect that gradually smaller organizations are getting affected by lockouts. But it may also be for other reasons. After 1991, most of the organizations opted for continuous downsizing. Therefore, for the same organization over the years the coverage ratio decreased with the decreasing number of workers.



The lockout time loss ratio started declining after 2006 though before that it was more or less stable. Lockout Time Loss ratio measures the average mandays loss due to lockouts. As it can be seen from the graph, lockout time loss ratio fell sharply in 1995 then remained within a band with some fluctuations but with a trend of slight gradual increase. But after 2006 it steadily fell though at a very low rate.

5.1.2 Resolution of Strikes

The issues involved, coverage ratio, duration ratio and time loss ratio help in understanding the changing nature of strikes and lockouts but they do not reflect their

effectiveness. To evaluate the effectiveness of strikes and lockouts, the year wise data regarding resolution of strikes and lockouts are studied.

Table 5.9 Year wise Resolution of Strikes

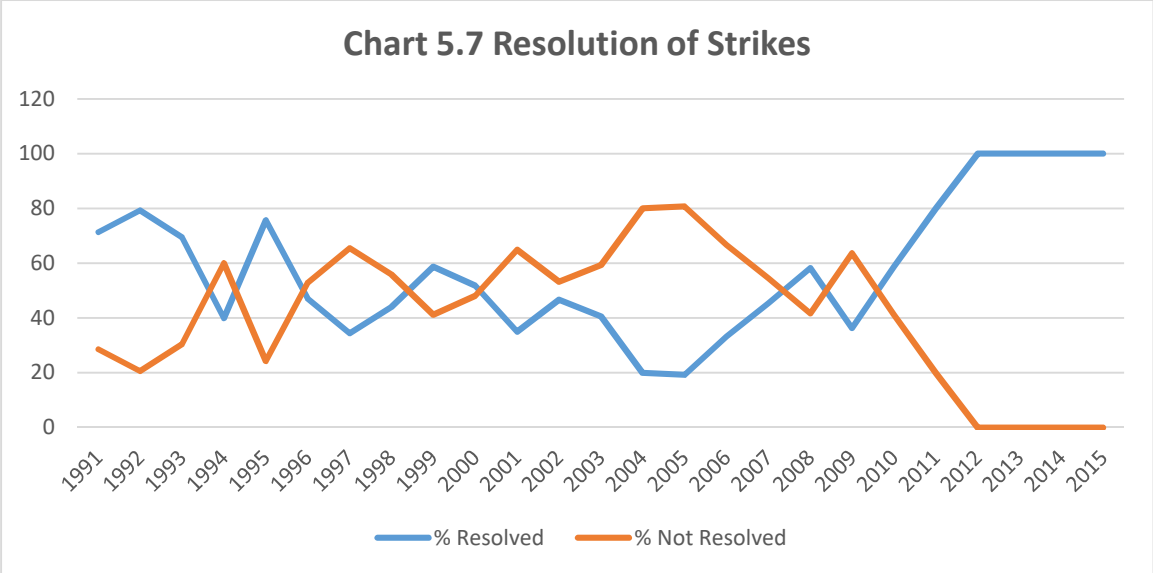
Year	No. of Strikes	Resolved	% Resolved	Not Resolved	% Not Resolved
1991	021	015	071.43	06	28.57
1992	029	023	079.31	06	20.69
1993	020	016	080.00	04	20.00
1994	012	006	050.00	06	50.00
1995	033	025	075.76	08	24.24
1996	016	008	050.00	08	50.00
1997	024	010	041.67	14	58.33
1998	025	011	044.00	14	56.00
1999	034	020	058.82	14	41.18
2000	026	014	053.85	12	46.15
2001	020	007	035.00	13	65.00
2002	029	014	048.28	15	51.72
2003	033	013	039.39	20	60.60
2004	020	004	020.00	16	80.00
2005	026	005	019.23	21	80.77
2006	024	003	012.50	21	87.50
2007	011	005	045.45	06	54.55
2008	012	007	058.33	05	41.67
2009	010	004	040.00	06	60.00
2010	017	010	058.82	07	41.18
2011	005	004	080.00	01	20.00
2012	001	001	100.00	00	00.00
2013	000	000	100.00	00	00.00
2014	314	314	100.00	00	00.00
2015	000	000	100.00	00	00.00

Source: Computed from data published in Labour in West Bengal, Labour Department, Government of West Bengal (Various Years)

Table 5.10 Descriptive Statistics of Resolution of Strike

	No. of Strikes	*Resolved*	*% Resolved*	*Not Resolved*	*% Not Resolved*
Mean	30.48	21.56	58.4736	8.92	41.526
Standard Error	11.98862	12.26092	5.171446	1.337809	5.171385
Median	20	8	53.85	7	46.15
Mode	20	4	100	6	0
Standard Deviation	59.94311	61.30462	25.85723	6.689046	25.85692
Sample Variance	3593.177	3758.257	668.5963	44.74333	668.5804
Kurtosis	23.38715	24.30602	-0.73451	-0.89213	-0.73443
Skewness	4.763172	4.900682	0.18252	0.349216	-0.18251
Range	314	314	87.5	21	87.5
Minimum	0	0	12.5	0	0
Maximum	314	314	100	21	87.5
Sum	762	539	1461.84	223	1038.15
Count	25	25	25	25	25

Source: Calculated by the researcher



During the period under study, there were 731 strikes of which 539 were resolved. Average rate of resolution is 57.84%. The rate of resolution started falling after 1992 though picked up in 1995 and 1999. The lowest rate of resolution is during 2004-05. After 2009 the rate of resolution steadily went up. Here also, the rate of resolution of

strikes increased from 2006 and drastically jumped from 2011. The fall in success rate after 1995 may be attributed to the New Economic Policy and Globalisation because of which the trade unions to a great extent lost their power. The number of strikes also drastically fell after 2005 which may be due to the transition of power. Perhaps the trade unions were not confident enough to go in for strikes.

From 1991 to 1995 except 1994 the rate of resolution of strike was quite high. Thereafter the rate fell but remained moderate till 2003. For subsequent three years (2004, 20005, 2006) it was quite low. Thereafter it became moderate till 2010. In 2011 it was quite high and thereafter the rate of resolution of strike is hundred percent. So external political situation does not only affect the nature of strike in terms of duration, number of workers involved and mandays lost but it also influences the success of strikes. The new government in 2011 adopted a policy of zero tolerance to strikes the outcome of which is reflected in the data. The large number of strikes in 2014 was due to the industry wide strike in tea industry.

5.1.3 Resolution of Lockouts

The year wise data for resolution of Lockouts are given below:

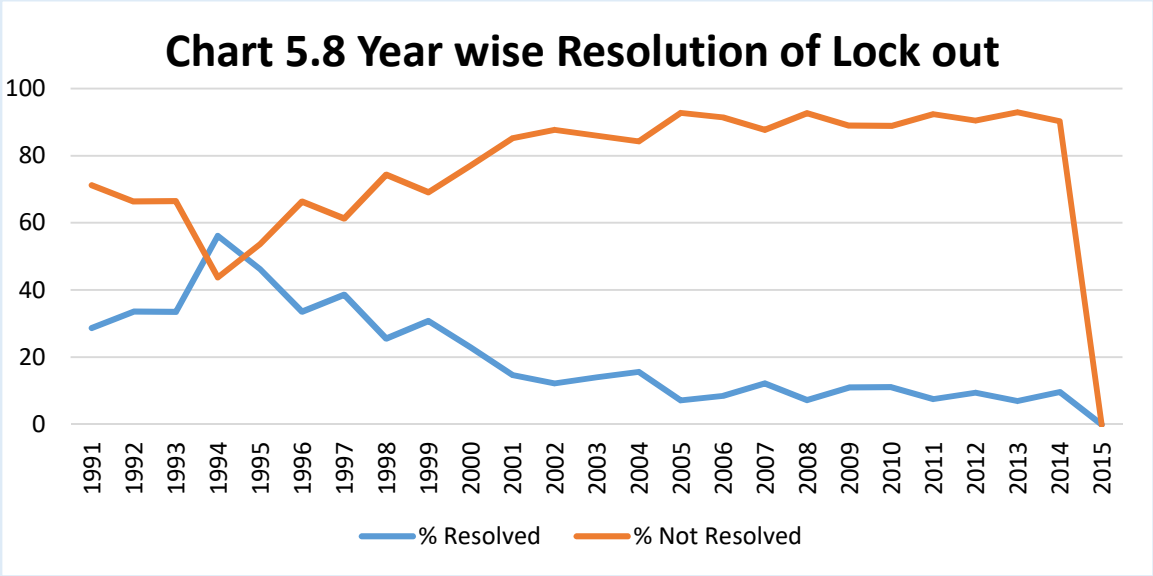
Table 5.11 Year wise Resolution of Lockouts

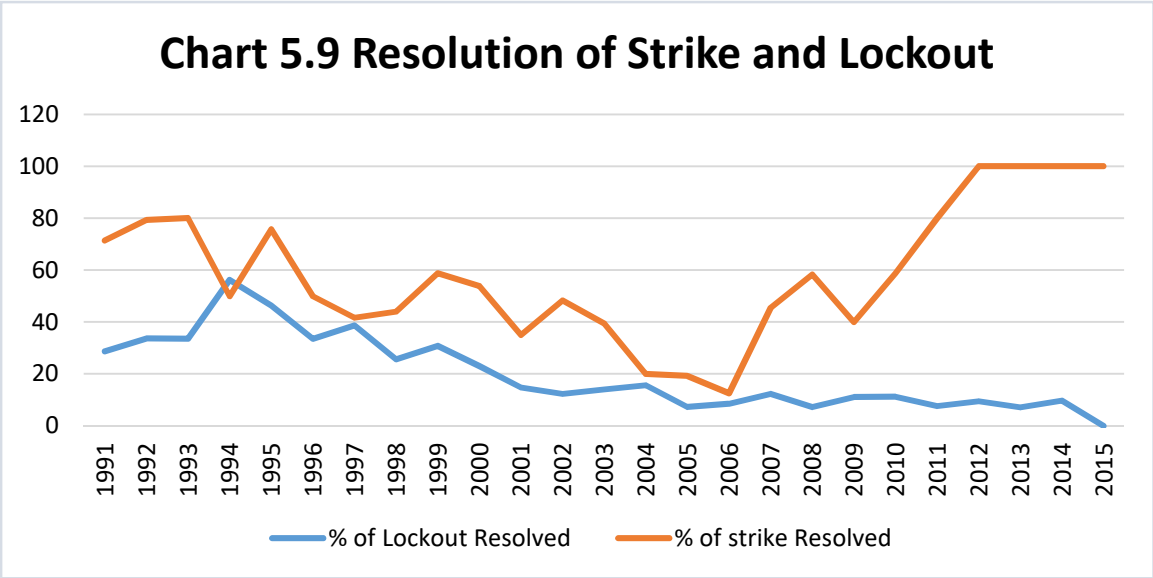
Year	No. of lockouts	Resolved	% Resolved	Not Resolved	% Not Resolved
1991	188	54	28.72	134	71.28
1992	207	72	33.64	135	66.36
1993	188	63	33.51	125	66.49
1994	121	68	56.20	053	43.80
1995	136	63	46.32	073	53.68
1996	128	43	33.59	085	66.41
1997	150	58	38.67	092	61.33
1998	207	53	25.60	154	74.40
1999	256	79	30.86	177	69.14
2000	274	63	22.99	211	77.01
2001	305	45	14.75	260	85.25
2002	342	42	12.28	300	87.72
2003	399	56	14.04	343	85.96
2004	357	56	15.69	301	84.31
2005	359	26	07.24	333	92.76
2006	352	30	08.52	322	91.48
2007	268	33	12.31	235	87.69
2008	262	19	07.31	241	92.69
2009	263	29	11.03	234	88.97
2010	269	30	11.15	239	88.85
2011	276	21	07.61	255	92.39
2012	294	28	09.52	266	90.48
2013	297	21	07.07	276	92.93
2014	320	31	09.69	289	90.31
2015	000	00	00.00	000	00.00

Source: Computed from data published in Labour in West Bengal, Labour Department, Government of West Bengal (Various Years)

Table 5.12 Descriptive Statistics of Resolution of Lockouts

	No. of lockouts	*Resolved*	*% Resolved*	*Not Resolved*	*% Not Resolved*
Mean	248.72	43.32	19.9324	205.32	76.0676
Standard Error	18.57961	3.965148	2.855059	19.25164	4.184164
Median	268	43	14.04	235	85.25
Mode	188	63	#N/A	#N/A	#N/A
Standard Deviation	92.89803	19.82574	14.2753	96.25821	20.92082
Sample Variance	8630.043	393.06	203.7841	9265.643	437.6808
Kurtosis	0.628707	-0.68136	0.173562	-0.81053	6.490297
Skewness	-0.76234	-0.1224	0.935965	-0.48257	-2.24398
Range	399	79	56.2	343	92.93
Minimum	0	0	0	0	0
Maximum	399	79	56.2	343	92.93
Sum	6218	1083	498.31	5133	1901.69
Count	25	25	25	25	25





The data reveals that there were 6166 lockouts during the period under study of which 1083 were resolved making the average rate of resolution 19.61%. The rate of resolution of lockouts steadily declined over the years starting from 1994. The reason for low rate of resolution of lockouts are understandable as 46.90% of lockouts are due to economic non-viability which cannot be resolved through the mechanisms under Industrial Disputes Act, 1947.

The rate of resolution of lockouts continuous fell from 1994. One of the reasons is that most of the lockouts were due to economic reasons. Many lockouts are also closures in the disguise of lockout. The Industrial Disputes Act, 1947 stipulates that for an industry employing 100 or more workers, permission for closure from the government should be taken and the workers were also should be paid compensation at the rate of 15 days' wages for every completed years of work. Government usually does not give permission for closure. So declaring lockout is the easiest way out for the employers. Further, they need not pay the compensation also if there is lockout instead of closure. The workers are also benefitted as they get a financial assistance from the government at the rate of Rs. 1500/- per month till he attains the age of superannuation or till he gets the terminal dues under the scheme of FAWLOI (Financial Assistance to the Workers of Locked Out Industries).

5.2 Effectiveness of Conciliation

To evaluate the effectiveness of conciliation, data related to the disputes handled by the conciliation machinery of the state are collected. Year wise data regarding no. of disputes pending, no. of disputes raised and no. of disputes disposed of are given below:

Table 5.13 Year wise Disputes Handled and Disposed

Year	No. of Disputes brought forward from previous year	No. of disputes raised during the year	Total No of Disputes handled during the year	No. of disputes disposed of during the year	Percentage of disposal to the total disputes handled.
1991	4,397	3648	8045	3379	42.00
1992	4,666	3699	8365	4058	48.51
1993	4,307	3640	7947	3714	46.73
1994	4,233	3103	7336	3536	48.20
1995	3,800	2830	6630	3073	46.35
1996	3,557	2250	5807	2352	40.50
1997	3,455	2442	5897	3197	54.21
1998	2,700	2402	5102	2138	41.51
1999	2,984	2301	5285	2234	42.27
2000	3,051	2275	5326	2857	53.64
2001	2,469	2404	4873	2570	52.74
2002	2,303	2053	4356	1650	37.88
2003	2,706	1852	4558	1769	38.81
2004	2,789	1589	4378	1379	31.50
2005	2,999	1313	4312	1465	33.97
2006	2,847	1217	4064	1003	24.68
2007	3,061	1219	4280	2008	46.92
2008	2,272	0824	3096	0888	28.68
2009	2,208	0903	3111	1071	34.43
2010	2,040	0713	2753	0725	26.33
2011	2,028	0715	2743	0620	22.60
2012	2,177	0717	2894	0662	22.87
2013	2232	0648	2880	0580	20.14
2014	2300	0700	3000	0951	31.70
2015	2049	0386	2435	0296	12.16

Source: Computed from data published in Labour in West Bengal, Labour Department, Government of West Bengal (Various Years)

The number of disputes raised before the conciliation machinery was above 3600 from 1991 to 1993 and thereafter it started decreasing. From 1996 to 2002 it ranged between 2250 and 2469 and then started increasing again till 2007. After 2007 it drastically fell and reached its lowest 2015. Again, it can be linked with the change in the political power. The shift of political power started from 2006 and interestingly number of disputes reached its peak in 2006. It may reflect the political struggle between the trade unions during this period. As the outgoing left trade unions realised that they have lost the support of the workers they became hesitant to raise disputes. The emerging trade unions and their leaders were new in the field and were not also sure about actual support of the workers and as such they also avoided raising disputes in the appropriate forum. In 2011, as the new government came into power with overwhelming majority they did not depend on the conciliation machinery to settle their dispute. The situation remained more or less same till 2015.

The number of disputes handled by the conciliation machinery steadily fell from 8045 in 1991 to 5102 in 1998. The fall continued except in 1999 and 2000.

The percentage of disposal was between 40 and 53 till 2001 but thereafter drastically fell to 37.88% in 2002 and the fall continued except in the year 2007. One of the reasons for this decreasing effectiveness of conciliation machinery may be shift of focus of the government. In 2001, the Government shifted its focus from the organised to the unorganised sector workers and in 2001 in introduced a Scheme of Provident Fund for Unorganised Workers which was administered by the same conciliation machinery.

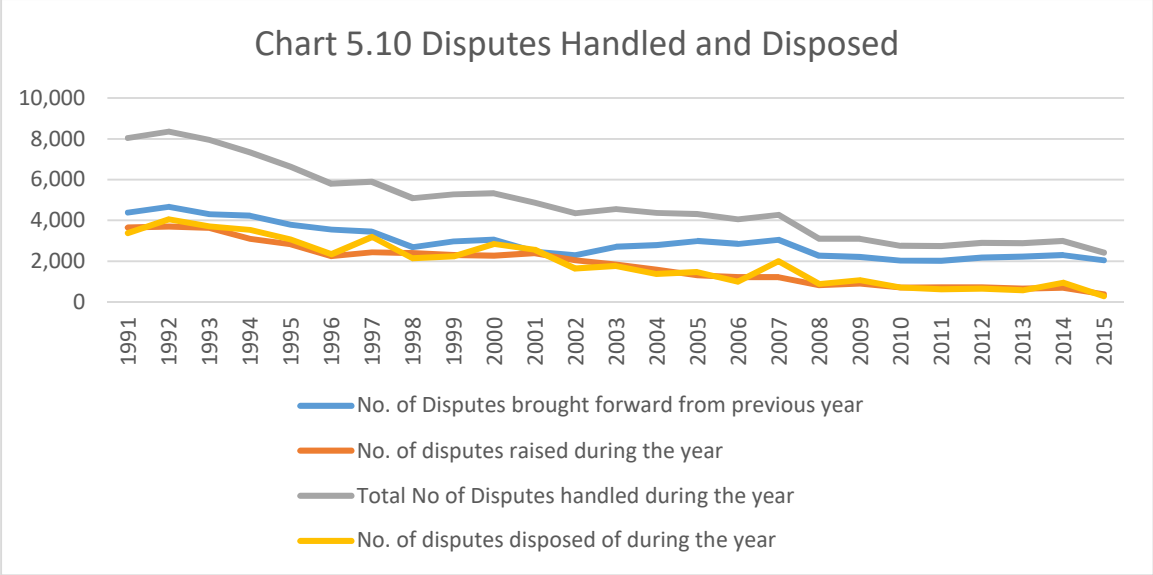


Chart 5.10 Disputes Handled and Disposed
10,000
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4,000
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2015
No. of Disputes brought forward from previous year
No. of disputes raised during the year
Total No of Disputes handled during the year
No. of disputes disposed of during the year

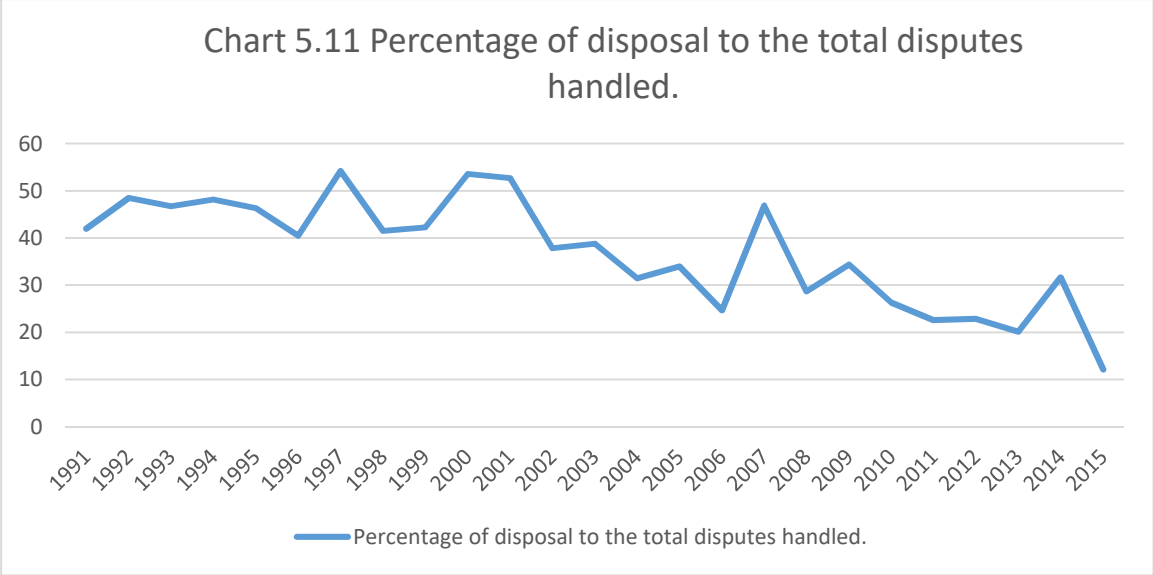
Chart 5.11 Percentage of disposal to the total disputes handled.
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40
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2014
2015
Percentage of disposal to the total disputes handled.

Table 5.14. Descriptive Statistics of Year Wise Disputes Handled and Disposed

	No. of Disputes brought forward from previous year	*No. of disputes raised during the year*	*Total No of Disputes handled during the year*	*No. of disputes disposed of during the year*	*Percentage of disposal to the total disputes handled.*
Mean	**2945.2**	**1833.72**	**4778.92**	**1927**	**37.1732**
Standard Error	**161.9763**	**207.3922**	**359.5185**	**225.1819**	**2.296805**
Median	**2789**	**1852**	**4378**	**1769**	**38.81**
Standard Deviation	**809.8817**	**1036.961**	**1797.592**	**1125.91**	**11.48403**
Sample Variance	**655908.4**	**1075288**	**3231338**	**1267672**	**131.8828**
Kurtosis	**-0.46934**	**-0.98446**	**-0.57881**	**-1.12777**	**-0.70074**
Skewness	**0.799396**	**0.383275**	**0.621227**	**0.343259**	**-0.35677**
Range	**2638**	**3313**	**5930**	**3762**	**42.05**
Minimum	**2028**	**386**	**2435**	**296**	**12.16**
Maximum	**4666**	**3699**	**8365**	**4058**	**54.21**
Sum	**73630**	**45843**	**119473**	**48175**	**929.33**
Count	**25**	**25**	**25**	**25**	**25**

Source: Calculated by the researcher

During the period under study, the conciliation machinery on an average handled around 4779 disputes per year of which 1927 disputes were disposed. The rate of disposal to the total disputes handled comes to 37.17%.

5.2.1 Methods of Disposal

Among the disputes disposed, there are disputes for which the conciliation machinery has submitted failure reports, there are disputes that are settled at tripartite level or bipartite level and there are disputes that are settled otherwise. Thus, industrial disputes are disposed by the conciliation by any of the following methods:

- Disputes settled through conciliation (including cases where parties did not pursue)
- Disputes for which failure Reports u/s. 12(4) of the I.D. Act were submitted to the Government
- Disputes which are settled at bipartite level
- Otherwise disposed of

Only second categories of disposal where the conciliation officer has submitted failure report under section 12(4) of the I. D. Act, 1947 can be termed as failure of conciliation or where the conciliation was not effective. All other methods of disposal reflect effectiveness of conciliation.

The data regarding the methods of disposal are given below:

Table 5.15 Methods of Disposal

Year	Total No. of disputes handled during the year	No. of Disputes disposed of during the year.	Disputes settled through conciliation (including cases were parties did not pursue)	Disputes for which Reports u/s. 12(4) of the I.D. Act were submitted to the Government	Bipartite settlement	Otherwise disposed off
1991	8045	3379	1031	405	252	1691
1992	8365	4058	1028	406	198	2426
1993	7947	3714	1108	335	206	2065
1994	7336	3536	1011	295	204	2026
1995	6630	3073	0920	237	162	1754
1996	5807	2352	0498	279	265	1310
1997	5897	3197	0757	274	165	2001
1998	5102	2138	0478	260	165	1215
1999	5285	2234	0461	264	089	1420
2000	5326	2857	0511	278	162	1906
2001	4873	2570	1120	264	154	1032
2002	4356	1650	0500	252	141	0757
2003	4558	1769	0534	245	125	0865
2004	4378	1379	0347	142	114	0776
2005	4312	1465	0468	212	088	0697
2006	4064	1003	0287	096	088	0532
2007	4280	2008	0677	074	129	1128
2008	3096	0888	0291	047	068	0482
2009	3111	1071	0209	060	073	0729
2010	2753	0725	0225	053	033	0414
2011	2743	0620	0171	035	046	0368
2012	2894	0662	0124	061	036	0441
2013	2880	0580	0076	036	064	0404
2014	3000	0951	0238	047	026	0640
2015	2435	0296	0087	022	032	0155

Source: Computed from data published in Labour in West Bengal, Labour Department, Government of West Bengal (Various Years)

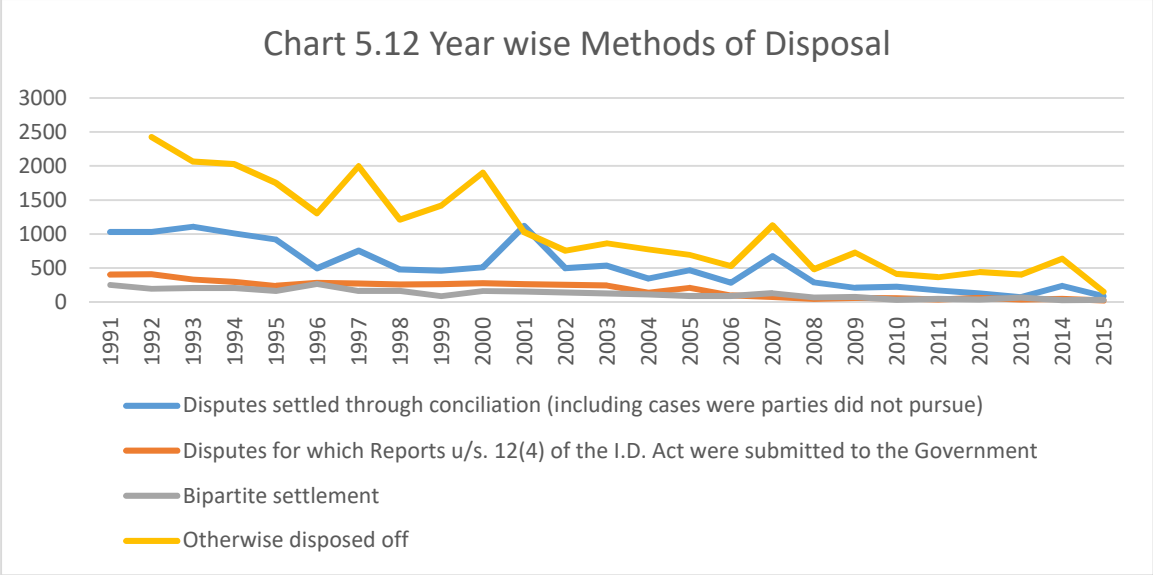


Table 5.16 Descriptive Statistics of Methods of Disposal

	Total No of Disputes handled during the year	***No. of disputes disposed of during the year***	***Failure reported***	***Tripartite Conciliation***	***Bipartite settlement***	***Otherwise disposed***
Mean	4778.92	1927.00	187.16	526.28	123.40	1089.36
Median	4378.00	1769.00	237.00	478.00	125.00	865.00
Standard Deviation	1797.59	1125.91	123.60	340.23	69.45	653.83
Kurtosis	-0.58	-1.13	-1.32	-1.01	-0.75	-0.98
Skewness	0.62	0.34	0.09	0.52	0.35	0.52
Range	5930.00	3762.00	384.00	1044.00	239.00	2271.00
Minimum	2435.00	296.00	22.00	76.00	26.00	155.00
Maximum	8365.00	4058.00	406.00	1120.00	265.00	2426.00
Sum	119473.00	48175.00	4679.00	13157.00	3085.00	27234.00

Source: Calculated by the researcher

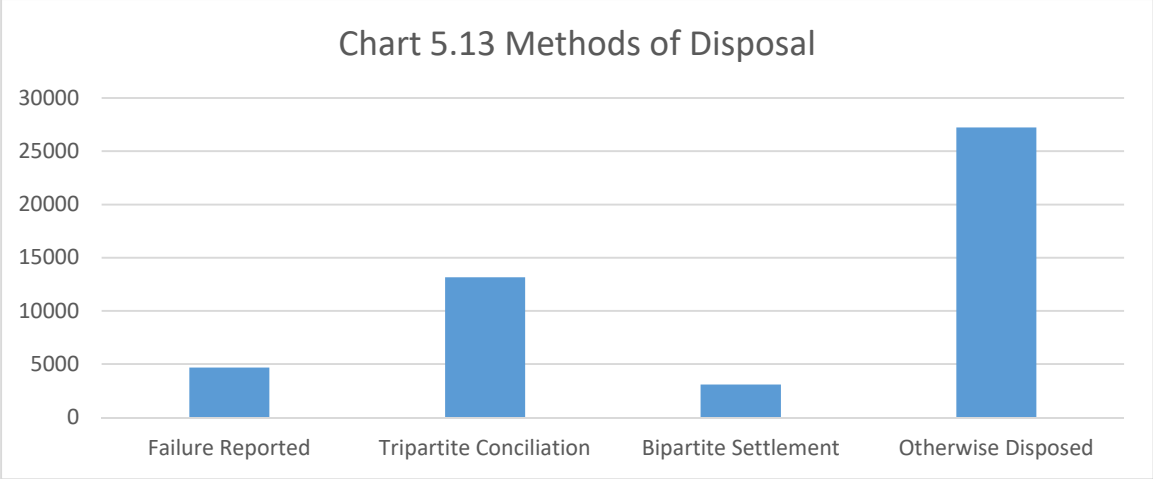


Table 5.17 Rates of Disposal under Different Methods

Year	No. of Disputes disposed of during the year.	% of tripartite settlement	% of bipartite settlement	% of otherwise disposal	% of failed conciliation
1991	3379	30.51	07.46	50.04	11.99
1992	4058	25.33	04.88	59.78	10.00
1993	3714	29.83	05.55	55.60	09.02
1994	3536	28.59	05.77	57.30	08.34
1995	3073	29.94	05.27	57.08	07.71
1996	2352	21.17	11.27	55.70	11.86
1997	3197	23.68	05.16	62.59	08.57
1998	2118	22.57	07.79	57.36	12.28
1999	2234	20.64	03.98	63.56	11.82
2000	2857	17.89	05.67	66.71	09.73
2001	2570	43.58	05.99	40.16	10.27
2002	1650	30.30	08.55	45.88	15.27
2003	1769	30.19	07.07	48.90	13.85
2004	1379	25.16	08.27	56.27	10.30
2005	1465	31.94	06.01	47.58	14.47
2006	1003	28.62	08.77	53.04	09.57
2007	2008	33.72	06.42	56.18	03.68
2008	0888	32.77	07.66	54.28	05.29
2009	1071	19.51	06.82	68.07	05.60
2010	0725	31.03	04.55	57.10	07.32
2011	0620	27.58	07.42	59.35	05.65
2012	0662	18.73	05.44	66.62	09.21
2013	0580	13.10	11.03	69.66	06.21
2014	0951	25.03	02.73	67.30	04.94
2015	0296	29.39	10.81	52.36	07.43

Source: Computed from data published in Labour in West Bengal, Labour Department, Government of West Bengal (Various Years)

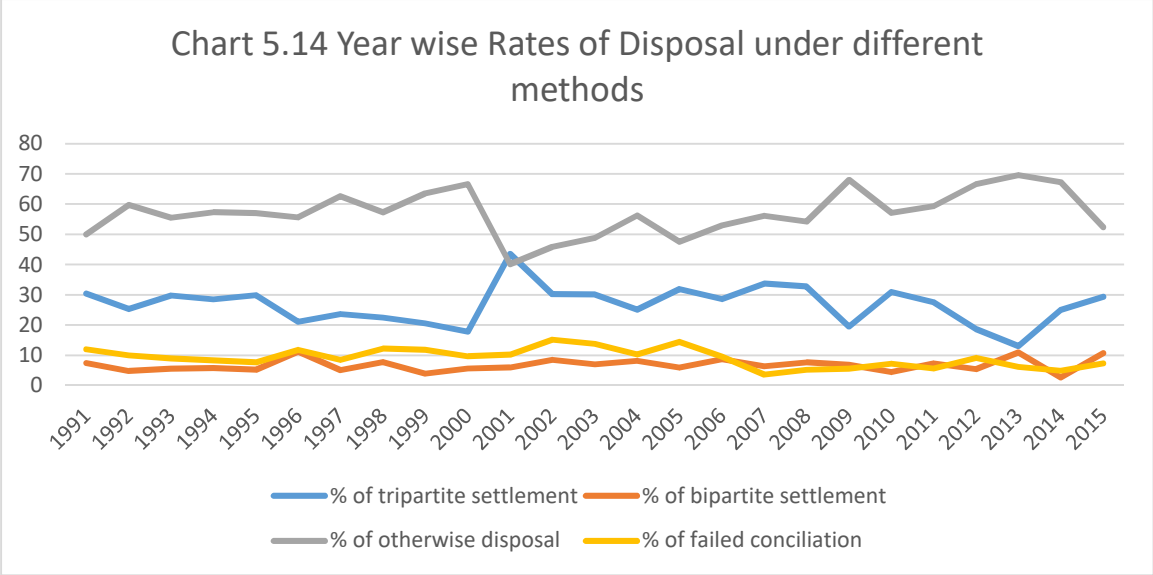
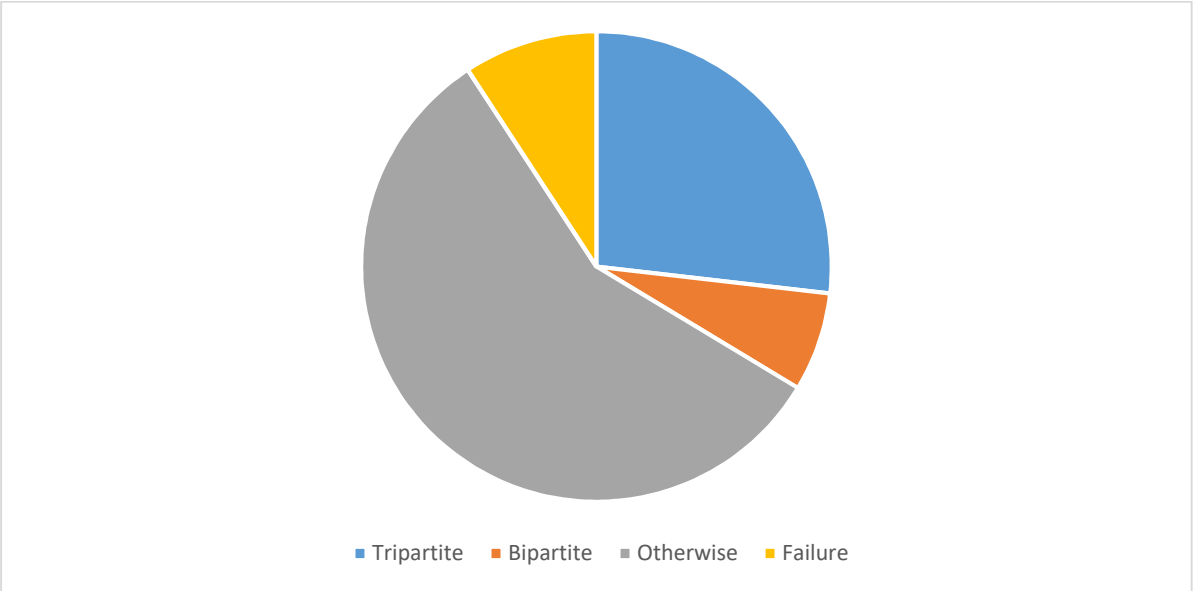


Table 5.18 Descriptive statistic of Rates of Disposal under different methods

	No. of Disputes disposed of during the year.	% of tripartite settlement	% of bipartite settlement	% of otherwise disposal	% of failed conciliation
Mean	1926.2	26.832	6.8136	57.1388	9.2152
Standard Error	225.1521	1.27172	0.430383	1.484654	0.618227
Median	1769	28.59	6.42	57.08	9.21
Standard Deviation	1125.76	6.358599	2.151916	7.423271	3.091135
Sample Variance	1267337	40.43178	4.630741	55.10495	9.555118
Kurtosis	-1.12542	1.035917	0.082821	-0.16822	-0.62066
Skewness	0.345636	0.155978	0.540353	-0.20131	0.170681
Range	3762	30.48	8.54	29.5	11.59
Minimum	296	13.1	2.73	40.16	3.68
Maximum	4058	43.58	11.27	69.66	15.27
Sum	48155	670.8	170.34	1428.47	230.38
Count	25	25	25	25	25

Source: Calculated by the researcher

Chart 5.15 Disposal under different methods



Average failure rate during the period under study is 9.21% and disposal through tripartite settlement is 26.82%. However, the actual disposal rate is much higher because many times disputes are shown to be settled at bipartite level or as otherwise though the dispute got settled because of conciliation.

The percentage of tripartite settlement was stable from 1991 to 1995 ranging from 25.33 in 1992 to 30.51 in 1991with a mean of 28.84. For the next five years i.e., from 1996 to 2000, the mean was 21.15 ranging from 17.89 in 2000 to 23.68 in 1997. It spiked in 2001 with the percentage of 43.58. It was stable from 2002 to 2008 with a mean of 30.39 and ranging from 25.16 in 2004 to 33.72 in 2007. In 2009 it decreased to 19.51 but next year in 2010 it was 31.03. In 2011, when there is a change in the government it was 27.58 but for the next two years it was low with 18.73 in 2012 and 13.1 in 2013 but again regained its position with 25.03 in 2014 and 29.39 in 2015.

The percentage of bipartite settlement was stable throughout the study period except in 1996, 1999, 2013, 2014 and 2015. It was quite low in 1999 (3.98%) and 2014 (2.73%). It was comparatively high in 1996 (11.27), 2013 (11.03%) and 2015

(10.81%). Apart from these years the percentage of bipartite settlement varied from 4.55 in 2010 to 8.77 in 2006 with a mean of 6.52.

The percentage of otherwise disposal cases ranged between 40.16 in 2001 and 69.66 in 2013 with a mean of 57.12. The percentage gradually increased from 50.04 in 1991 to 66.71 in 2000 and then drastically fell to 40.16 in 2001 and then again it started rising. The percentage was quite high during 2012 to 2014 but again decreased in 2015.

The percentage of failed conciliation ranged from 3.69 in 2007 to 15.27 in 2002 with a mean of 9.21. Here also after 2006, the percentage was quite low with the exception of 2012 when it was 9.21.

5.2.2 Rate of Success and Failure in Conciliation

The above analysis is concerned with the different methods of disposal when disputes were handled by the conciliation machinery. However, to understand the efficacy of conciliation as a method of resolving industrial disputes we need to study its success and failure rates. The success and failure rates of conciliation were calculated in the following way:

Failure rate of conciliation = (Number of Failed Conciliation) /(Total number of disputes handled) x 100

Success rate of Tripartite settlement = (Number of tripartite settlements)/ total number of disputes handled) x 100

Resolution rate in conciliation = (Number of disputes resolved)/ total number of disputes handled) x 100

Success rate of conciliation = (Number of resolved cases)/(total number of disputes handled – pending cases) x 100

When an industrial dispute is raised before a conciliation officer, it may get disposed or it may remain pending or the conciliation may fail and in case of failure of conciliation a failure report is sent to the Government by the conciliation officer. Thus it can be said that only in cases where failure reports have been submitted to the government conciliation is ineffective. The pending cases are undecided and may end in failure or success.

Table 5.19 Year wise Success and Failure Rate of Conciliation

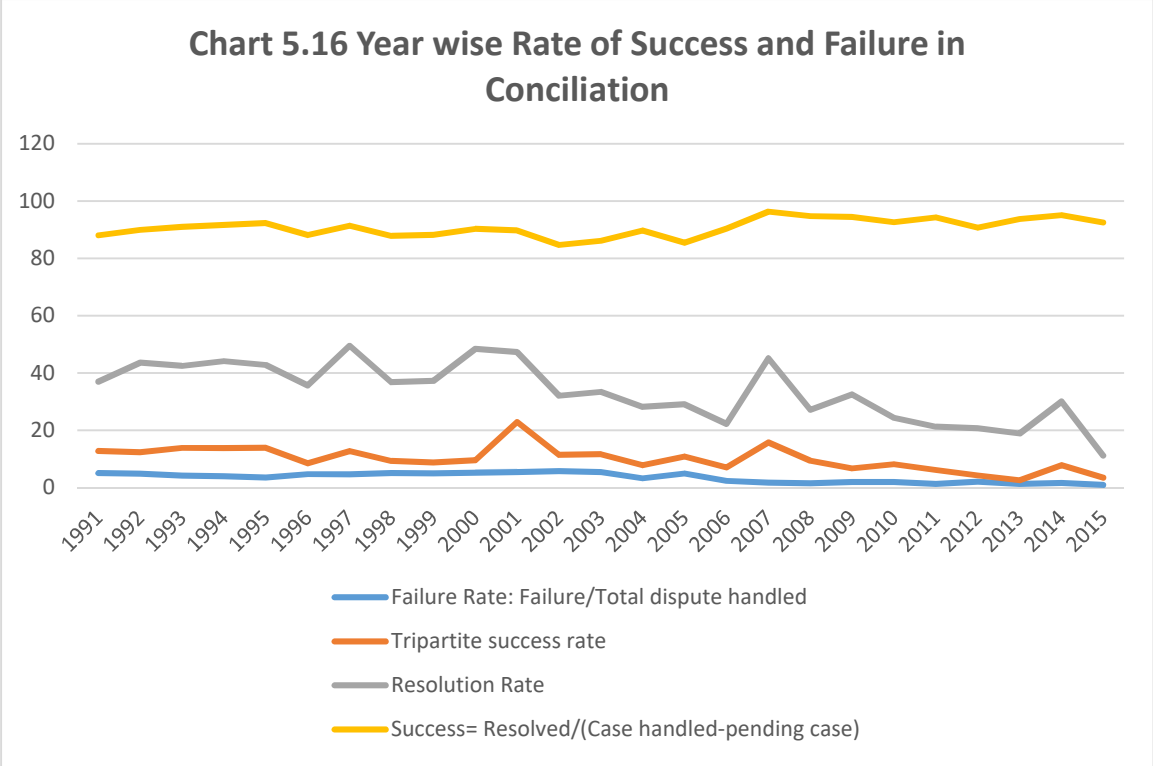
Year	Failure Rate: Failure/Total dispute handled*100	Tripartite success rate: Tripartite settlement/Total dispute handled*100:	Resolution Rate: Resolved dispute/Total dispute handled*100	Success= Resolved/(Case handled-pending case)*100
1991	5.03	12.82	36.97	88.01
1992	4.85	12.29	43.66	90.00
1993	4.22	13.94	42.52	90.98
1994	4.02	13.78	44.18	91.66
1995	3.57	13.88	42.78	92.29
1996	4.80	08.58	35.70	88.14
1997	4.65	12.84	49.57	91.43
1998	5.10	09.37	36.81	87.84
1999	5.00	08.72	37.28	88.18
2000	5.22	09.59	48.42	90.27
2001	5.42	22.98	47.32	89.73
2002	5.79	11.48	32.09	84.73
2003	5.38	11.72	33.44	86.15
2004	3.24	07.93	28.25	89.70
2005	4.92	10.85	29.06	85.53
2006	2.36	07.06	22.32	90.43
2007	1.73	15.82	45.19	96.31
2008	1.52	09.40	27.16	94.71
2009	1.93	06.72	32.50	94.40
2010	1.93	08.17	24.41	92.69
2011	1.28	06.23	21.33	94.35
2012	2.11	04.28	20.77	90.79
2013	1.25	02.64	18.89	93.79
2014	1.57	07.93	30.13	95.06
2015	0.90	03.57	11.25	92.57

Source: Computed from data published in Labour in West Bengal, Labour Department, Government of West Bengal (Various Years)

Table 5.20 Descriptive Statistics of Year Wise Success and Failure Rate of Conciliation

	*Failure Rate: Failure/Total dispute handled*100*	*Tripartite success rate: Tripartite settlement/Total dispute handled*100:*	*Resolution Rate: Resolved dispute/Total dispute handled*100*	*Success= Resolved/(Case handled-pending case)*100*
Mean	**3.5116**	**10.1036**	**33.68**	**90.7896**
Standard Error	**0.331597**	**0.868361**	**2.06668**	**0.617155**
Median	**4.02**	**9.4**	**33.44**	**90.79**
Standard Deviation	**1.657987**	**4.341805**	**10.3334**	**3.085777**
Sample Variance	**2.748922**	**18.85127**	**106.7791**	**9.522021**
Kurtosis	**-1.67936**	**1.990668**	**-0.70212**	**-0.61147**
Skewness	**-0.2305**	**0.823315**	**-0.26309**	**-0.17288**
Range	**4.89**	**20.34**	**38.32**	**11.58**
Minimum	**0.9**	**2.64**	**11.25**	**84.73**
Maximum	**5.79**	**22.98**	**49.57**	**96.31**
Sum	**87.79**	**252.59**	**842**	**2269.74**
Count	**25**	**25**	**25**	**25**

Source: Calculated by the researcher



The failure rate ranged from 3.24 in 2004 to 5.79 in 2002 with a mean of 4.75. Thereafter it drastically decreased ranging from 0.90 in 2015 to 2.36 in 2006 with a mean of 1.47. Thus overall failure rate is quite negligible and it appears that from 2006 the rate of failure had decreased further. In West Bengal, Politically, the year 2006 was a significant year. Here the rate of failure low does not mean that conciliation was effective. If the disputes remain pending for long, then also the rate of failure will be low.

Next we will see the rate of resolution of disputes. From 1991 to 2001 it was considerably high ranging from 35.70 in 1996 to 49.57 in 1997 with a mean of 42.29. From 2002 to 2015 it decreased considerable with the exception of 2007 when it was 45.19. If we do not take into consideration the year 2007 then the rate of resolution from 2002 to 2015 ranged from 11.25 in 2015 to 33.44 in 2003 with a mean of 25.51. Again 2001 was the year in which the government of west Bengal launched a scheme for unorganised workers and the focus shifted for industrial relations to labour welfare

which may be the reason for sudden fall in rate of resolution of disputes by the conciliation machinery.

However, this rate of resolution does not correctly reflect the effectiveness of conciliation as the pending cases has not been taken into account. After taking into account the pending cases the success rate jumps. From 1991 to 2006, the success rate ranged from 84.73 in 2002 to 92.29 in 1995 with a mean of 89.07. From 2007 to 2015, the success rate ranged from 93.85. Thus the decreasing resolution rate did not affect the success rate. It is because when resolution rate was low the number of pending cases increased.

5.2.3 Issues Involved in Successful or Failed Conciliation

The issues involved in successful and failed conciliation were also studied. The issues involved in conciliation are categorised as follows:

- Monetary Issues
- Personnel Issues
- Non-monetary benefits
- Other issues

Wages, bonus, allowances, incentives etc. come under the category of monetary issues. Dismissal, retrenchment, discipline etc. come under personnel issues. Non-monetary benefits include canteen, uniform etc. The issues that cannot be categorised in the above three categories are clubbed as ‘Other’.

The year wise data regarding issues involved are given below:

Table 5.21 Issues involved in successful or failed Conciliation

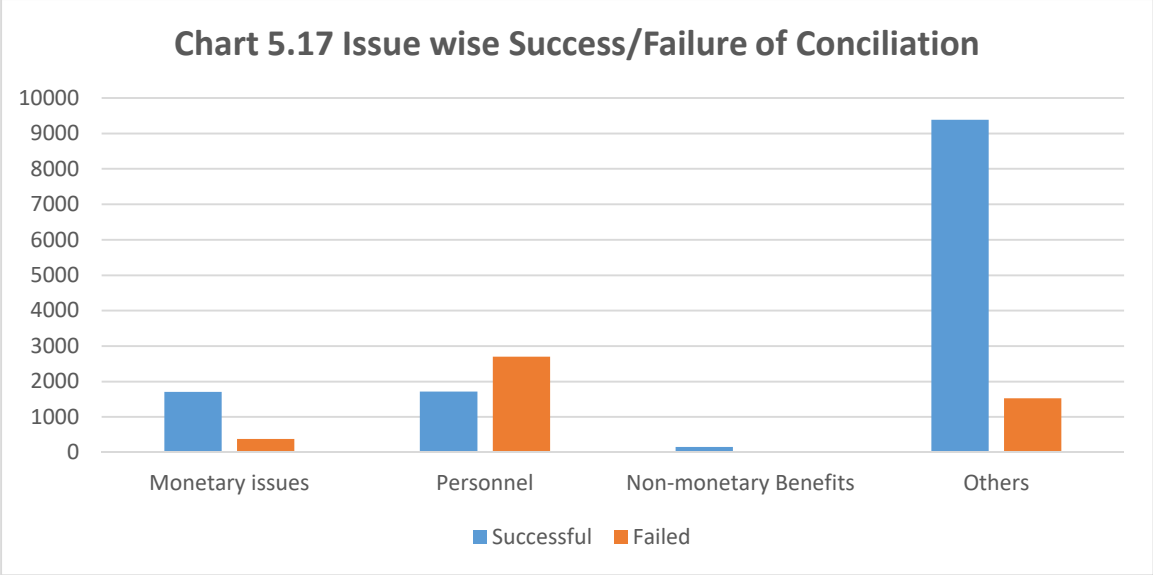
Year	Successful conciliation of monetary disputes	Successful conciliation of personnel disputes	Successful conciliation of non-monetary benefit disputes (NS)	Successful conciliation of other disputes (OS)	Failed conciliation of monetary disputes (MF)	Failed conciliation of personnel disputes (PF)	Failed conciliation of non-monetary benefit disputes (NF)	Failed conciliation of other disputes (OF)
1991	104	130	09	788	26	224	1	154
1992	178	121	12	717	21	221	3	161
1993	122	133	04	849	19	202	0	114
1994	119	139	06	747	20	206	2	067
1995	137	140	14	629	19	135	1	082
1996	137	122	38	201	27	164	3	085
1997	164	157	50	252	27	161	1	089
1998	074	089	01	293	20	152	0	086
1999	065	073	00	293	28	136	1	073
2000	087	089	04	327	16	121	3	121
2001	074	088	01	957	31	149	5	079
2002	063	095	03	339	22	160	1	069
2003	045	053	01	435	19	140	3	083
2004	039	051	00	257	13	078	2	049
2005	036	031	00	401	19	152	0	041
2006	032	030	01	224	15	061	0	020
2007	045	033	03	596	06	045	0	023
2008	024	009	00	258	04	020	1	022
2009	019	013	01	176	05	033	0	022
2010	017	015	00	192	04	025	3	021
2011	019	017	01	134	04	021	1	009
2012	022	014	01	087	03	048	0	010
2013	007	011	01	057	03	017	0	016
2014	055	042	04	137	06	021	0	020
2015	021	026	01	039	02	010	0	010

Source: Computed from data published in Labour in West Bengal, Labour Department, Government of West Bengal (Various Years)

Table 5.22 Descriptive Statistics of Issues involved in successful or failed Conciliation

	Successful conciliation of monetary disputes	*Successful conciliation of personnel disputes*	*Successful conciliation of non-monetary benefit disputes (NS)*	*Successful conciliation of other disputes (OS)*	*Failed conciliation of monetary disputes (MF)*	*Failed conciliation of personnel disputes (PF)*	*Failed conciliation of non-monetary benefit disputes (NF)*	*Failed conciliation of other disputes (OF)*
Mean	68.2	68.84	6.24	375.4	15.16	108.08	1.24	61.04
Standard Error	9.990829	9.918952	2.416113	53.30091	1.879433	14.46443	0.278568	8.986931
Median	55	53	1	293	19	135	1	67
Mode	137	89	1	293	19	152	0	20
Standard Deviation	49.95415	49.59476	12.08056	266.5045	9.397163	72.32215	1.392839	44.93466
Sample Variance	2495.417	2459.64	145.94	71024.67	88.30667	5230.493	1.94	2019.123
Kurtosis	-0.48158	-1.41579	8.406174	-0.50331	-1.39995	-1.45705	0.455812	-0.29848
Skewness	0.788077	0.337371	2.925971	0.814439	-0.05367	0.029052	1.041377	0.679334
Range	171	148	50	918	29	214	5	152
Minimum	7	9	0	39	2	10	0	9
Maximum	178	157	50	957	31	224	5	161
Sum	1705	1721	156	9385	379	2702	31	1526
Count	25	25	25	25	25	25	25	25

Source: Calculated by the researcher



The data reveals that conciliation is mostly successful in monetary issues and other miscellaneous issues. Failure of conciliation is more pronounced in personnel issues.

5.3 Effectiveness of Adjudication

There are nine Industrial Tribunals and two Labour Courts functioning in the State of West Bengal. Usually, Industrial Tribunals are presided over by the officers belonging to the cadre of West Bengal Higher Judicial Service deputed by the Hon'ble High Court at Kolkata. Occasionally a few of the judges of the Tribunals are appointed by the Labour Department by way of re-employment. The Labour Courts are also headed by the judicial officers belonging to the West Bengal Judicial Service and posted on deputation by the Hon'ble High Court at Kolkata.

Industrial Tribunals and Labour courts are empowered to adjudicate various disputes covered under Industrial Disputes Act, 1947, Industrial Employment (Standing Order) Act, 1946, and Working Journalists (Miscellaneous Provisions) Act, 1955. Industrial Tribunals and Labour courts adjudicates matters under section 10, 10(1B)(d),33A,36A,33(2)(d),33(3)(b), 33C(2),2A(2) of the Industrial Disputes Act,1947. However, for the purpose of this study we will consider the performance of

Industrial Tribunals and Labour courts under section 10 and 10(1B)(d) of the Industrial Disputes Act, 1947 under which it directly adjudicates industrial disputes.

Under section 10 of the Industrial Disputes Act, 1947, the state Government refers industrial disputes for adjudication and under section 10(1B)(d) the affected workman can directly approach the Labour Court or Industrial Tribunal for adjudication of his dispute.

To evaluate the performance of the adjudication machinery for both types of disputes taken together data were collected from 1991 to 2015 in respect of total number of cases referred or filed before the adjudicating machinery, total number of cases handled (which includes cases carried forward from previous year), total number of cases disposed and total number of complaints regarding violations of award. In conciliation, settlement is arrived at when all the parties agree to it. However, in adjudication agreement of the parties are not required. In that sense adjudication cannot fail. In two cases adjudication can be considered to have failed – when any of the parties' files appeal before higher courts against the award of the labour court or industrial tribunal or when the parties do not carry out the award. The data regarding cases where the parties preferred appeal before the higher courts against the awards are not available in the official records. However, the data regarding number of complaints of violation of award by the parties are available.

Following three measures are used to evaluate the effectiveness of adjudication:

Rate of Disposal = (total number of cases disposed in a year)/ (total number of cases handled in a year) x 100

Rate of Violation of Award = (total number of complaints of violations of award)/ (total number of cases disposed) x 100

Rate of successful disposal = (total number of cases disposed – total number complaints of violation of award)/ (total number of cases handled) x 100

Table 5.23 Performance of Adjudication Machinery u/s 10 & 10(1B)(d) of I.D. Act, 1947

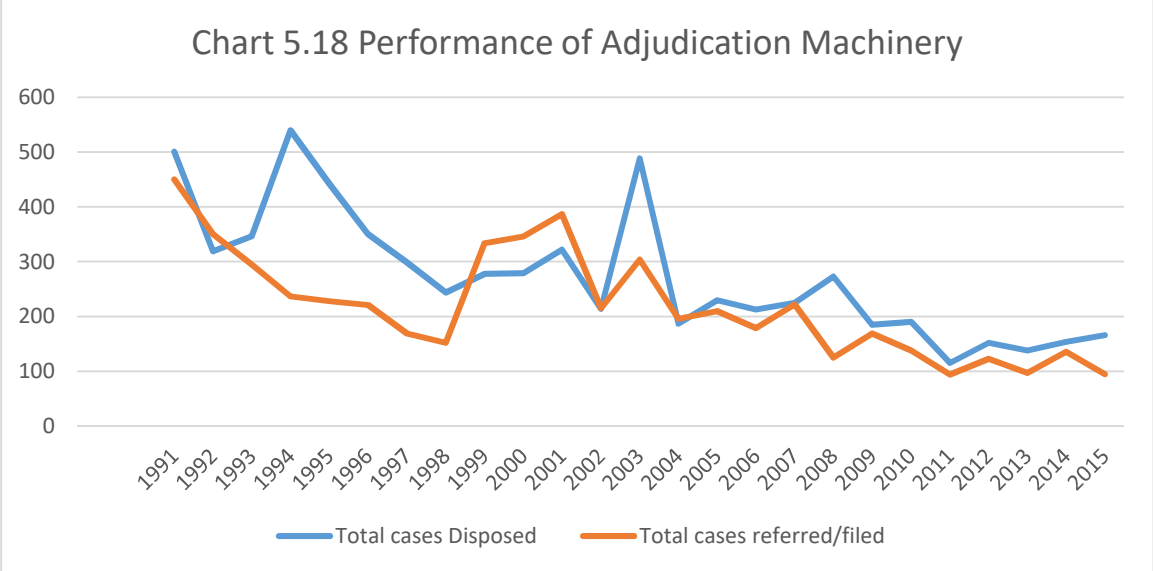
Year	Total cases Handled	Total cases Disposed	Total cases referred/filed	No. of complaints regarding violation of Awards	Disposal Rate (%) = Disposed cases/handled cases*100	Rate of violation= Violation cases/cases disposed*100	Successful disposal rate = (disposed cases-violation cases)/cases handled*100
1991	2733	501	450	79	18.33	15.77	15.44
1992	2582	319	350	62	12.35	19.44	09.95
1993	2558	347	295	51	13.57	14.70	11.57
1994	2448	540	237	87	22.06	16.11	18.50
1995	2136	442	228	77	20.69	17.42	17.09
1996	1915	350	221	86	18.28	24.57	13.79
1997	1734	299	169	67	17.24	22.41	13.38
1998	1587	244	152	70	15.37	28.69	10.96
1999	1677	278	334	75	16.58	26.98	12.10
2000	1745	279	346	80	15.99	28.67	11.40
2001	1853	322	387	55	17.38	17.08	14.41
2002	1746	214	215	41	12.26	19.16	09.91
2003	1858	489	304	73	26.32	14.93	22.39
2004	1565	187	196	57	11.95	30.48	08.31
2005	1588	230	210	22	14.48	09.57	13.10
2006	1537	213	179	26	13.86	12.21	12.17
2007	1546	225	222	20	14.55	08.89	13.26
2008	1390	273	125	15	19.64	05.49	18.56
2009	1105	185	169	12	16.74	06.49	15.66
2010	1037	190	138	12	18.32	06.32	17.16
2011	0941	115	094	37	12.22	32.17	08.29
2012	0949	152	123	24	16.02	15.79	13.49
2013	0894	138	097	21	15.44	15.22	13.09
2014	0893	154	136	40	17.25	25.97	12.77
2015	0834	166	095	16	19.90	09.64	17.99

Source: Computed from data published in Labour in West Bengal, Labour Department, Government of West Bengal (Various Years)

Table 5.24 Descriptive Statistics of Performance of Adjudication Machinery u/s 10 & 10(1B)(d) of I.D. Act, 1947

	Total cases Handled	*Total cases Disposed*	*Total cases referred /filed*	*No. of complaints regarding violation of Awards*	*Disposal Rate(%) = Disposed cases/handled cases*100*	*Rate of violation= Violation cases/cases disposed*100*	*Successful disposal rate = (disposed cases-violation cases)/cases handled*100*
Mean	1634.04	274.08	218.88	48.20	16.67	17.77	13.79
Median	1588.00	244.00	210	51.00	16.58	16.11	13.26
Standard Deviation	558.90	117.73	98.03	26.23	3.40	7.96	3.43
Kurtosis	-0.57	0.04	-0.25	-1.58	1.29	-0.95	0.25
Skewness	0.34	0.89	0.77	0.00	0.87	0.23	0.57
Range	1899.00	425.00	356	75.00	14.37	26.68	14.10
Minimum	834.00	115.00	94	12.00	11.95	5.49	8.29
Maximum	2733.00	540.00	450	87.00	26.32	32.17	22.39

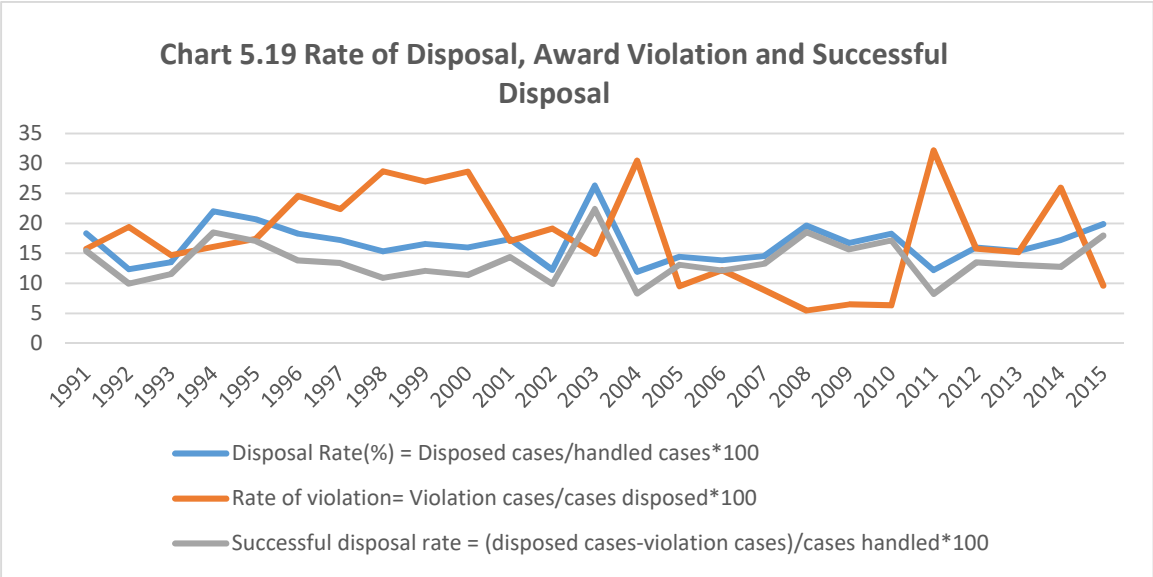
Source: Calculated by researcher

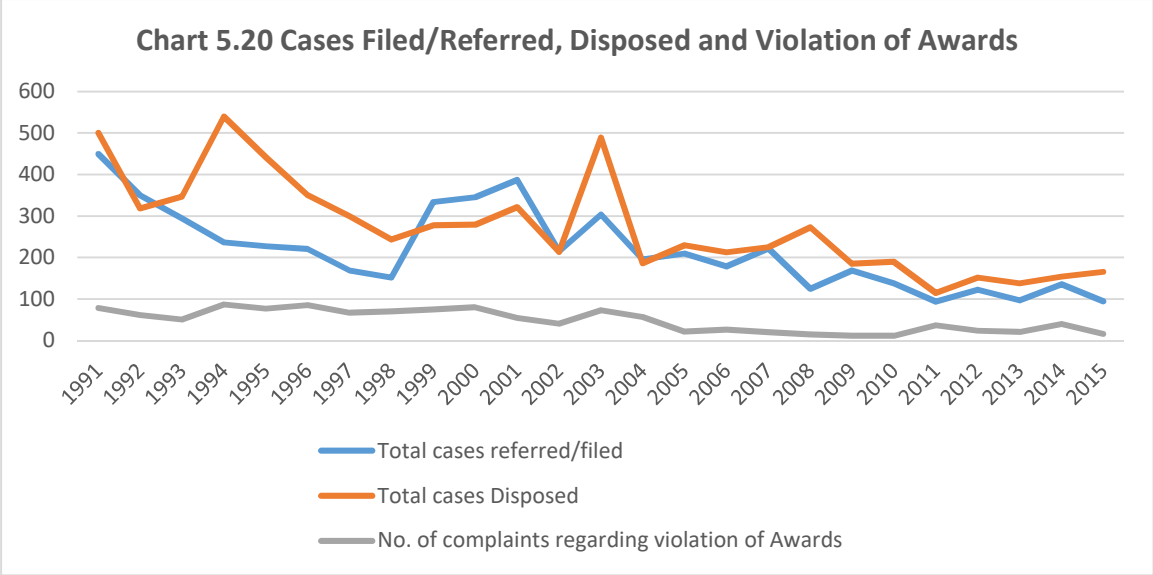


During the 25 years' study period the state adjudication machinery handled on an average 1634 disputes per year and disposed of around 274 cases. The mean rate of

disposal per year is 16.67%. A dispute when adjudicated upon results in award or no award. The parties have the option of preferring an appeal in higher courts. But in some cases, the parties neither go for appeal nor comply with the award. In such cases, the other party files complaint regarding violation of award. On an average, in 48 cases per year there are complaints regarding violation of award. Further, unlike conciliation, the adjudicating machinery has the power to dispose of the cases on its own. They do not need the consent of the parties to pronounce the award. Considering these, the rate of disposal by the adjudicating machinery is quite low. If we deduct the cases of award violation, the effective rate of disposal comes to around 13.79%.

During the study period the rate of disposal ranged from 11.95 in 2004 to 26.32 in 2003 with a mean of 16.67 and standard deviation of 3.40. Rate of violation of award ranged from 5.49 in 2008 to 32.17 in 2011 with a mean of 17.77 and standard deviation of 7.96. Rate of successful disposal ranged from 8.29 in 2011 to 22.39 in 2003 with a mean of 13.79 and standard deviation of 3.43.





From the above chart, it can be seen that till 2005 there is a relation between the number of cases of disputes handled and the number of cases of disputes disposed. However, after 2005 the number of disposals stabilised around 200 irrespective of the number of disputes handled and the number of disputes handled steadily declined over the years. The number of disputes handled declined because the number of disputes referred or filed for adjudication declined.

It is seen that even after adjudication in many cases the award is not honoured/implemented. Apart from violation of award the parties have the option of preferring an appeal in higher courts. However, data relating to cases where the parties preferred appeal is not available.

From the above chart, it is interesting to note that when the disposal rate showed an upward trend the violation rate showed downward trend and vice versa. One reason may be that there is a time lag between the two. Complaints of violation of award are filed not immediately after the case is disposed of by award. The affected party waits for some time and even pursues the case before the other party before filing a formal complaint.

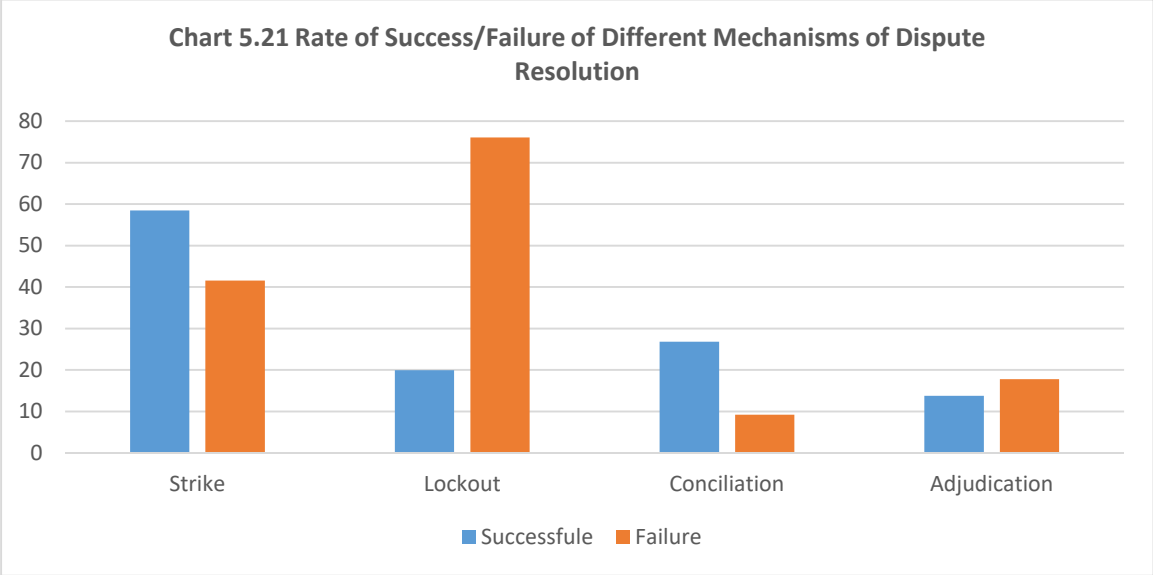
5.4 Comparison of Effectiveness of Different Mechanisms of Industrial Disputes Resolution

A comparison of success and failure rate of different methods of resolving industrial disputes are given below:

Table 5.25 Rate of Success and Failure of Different Industrial Disputes Resolution Mechanism

	Strike	Lockout	Conciliation	Adjudication
Rate of Success	58.47	19.93	26.83	13.79
Rate of Failure	41.53	76.07	09.21	17.77

Source: Calculated by the researcher



To compare the effectiveness of all the methods it is necessary to study both their rates of success and failure. If the criterion of rate of success is considered, then most successful is strike followed by conciliation. However, strike has a cost attached to it. The workers lose their wages during the strike. In addition, there is uncertainty about the outcome. If the rate of failure is considered, then conciliation is most effective as the rate of failure of conciliation is the least.

Year wise comparison

Table 5.26 Year wise Rate of Success and Failure of Different Industrial Disputes Resolution Mechanism

Year	% Resolved Strike	% Resolved Lockout	% of tripartite settlement Conciliation	Successful Adjudication	% Not Resolved Strike	% Not Resolved Lockout	% of failed conciliation	Rate of violation= Violation cases/cases disposed*100
1991	071.43	28.72	30.51	15.44	28.57	71.28	11.99	15.77
1992	079.31	33.64	25.33	09.95	20.69	66.36	10.00	19.44
1993	080.00	33.51	29.83	11.57	20.00	66.49	09.02	14.70
1994	050.00	56.20	28.59	18.50	50.00	43.80	08.34	16.11
1995	075.76	46.32	29.94	17.09	24.24	53.68	07.71	17.42
1996	050.00	33.59	21.17	13.79	50.00	66.41	11.86	24.57
1997	041.67	38.67	23.68	13.38	58.33	61.33	08.57	22.41
1998	044.00	25.60	22.57	10.96	56.00	74.40	12.28	28.69
1999	058.82	30.86	20.64	12.10	41.18	69.14	11.82	26.98
2000	053.85	22.99	17.89	11.40	46.15	77.01	09.73	28.67
2001	035.00	14.75	43.58	14.41	65.00	85.25	10.27	17.08
2002	048.28	12.28	30.30	09.91	51.72	87.72	15.27	19.16
2003	039.39	14.04	30.19	22.39	60.60	85.96	13.85	14.93
2004	020.00	15.69	25.16	08.31	80.00	84.31	10.30	30.48
2005	019.23	07.24	31.94	13.10	80.77	92.76	14.47	09.57
2006	012.50	08.52	28.62	12.17	87.50	91.48	09.57	12.21
2007	045.45	12.31	33.72	13.26	54.55	87.69	03.68	08.89
2008	058.33	07.31	32.77	18.56	41.67	92.69	05.29	05.49
2009	040.00	11.03	19.51	15.66	60.00	88.97	05.60	06.49
2010	058.82	11.15	31.03	17.16	41.18	88.85	07.32	06.32
2011	080.00	07.61	27.58	08.29	20.00	92.39	05.65	32.17
2012	100.00	09.52	18.73	13.49	00.00	90.48	09.21	15.79
2013	100.00	07.07	13.10	13.09	00.00	92.93	06.21	15.22
2014	100.00	09.69	25.03	12.77	00.00	90.31	04.94	25.97
2015	100.00	00.00	29.39	17.99	00.00	00.00	07.43	09.64
Average	**058.47**	**19.93**	**26.83**	**13.79**	**41.53**	**76.07**	**09.22**	**17.77**

Source: Computed from data published in Labour in West Bengal, Labour Department, Government of West Bengal (Various Years)

Table 5.27 Descriptive Statistics of year wise Rate of Success and Failure of Different Industrial Disputes Resolution Mechanism

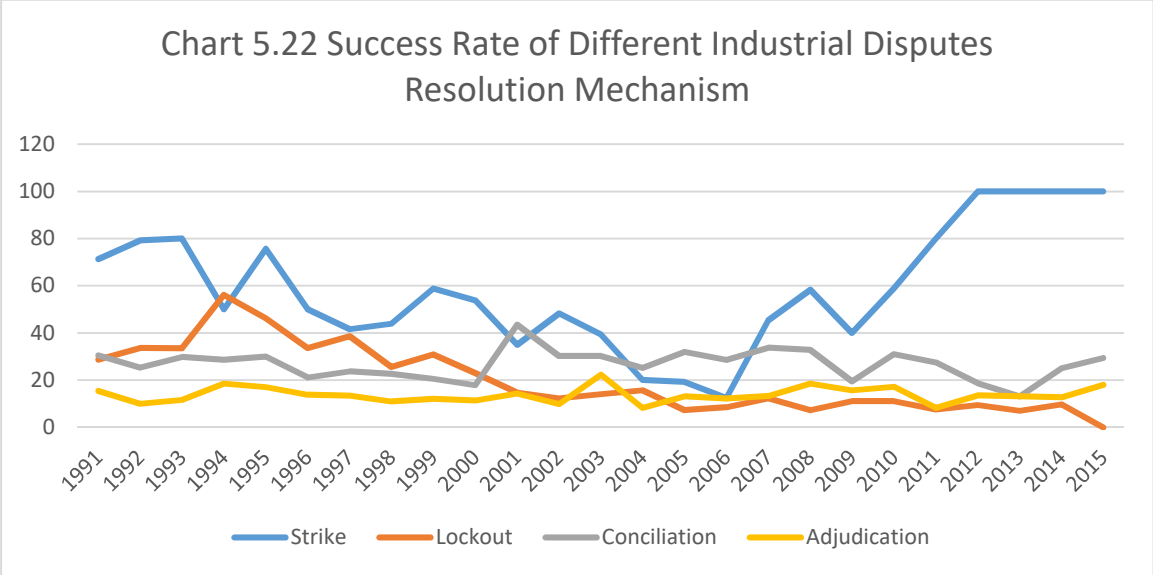
	% Resolved Strike	*% Resolved Lockout*	*% of tripartite settlement*	*Successful Adjudication*	*% Not Resolved Strike*	*% Not Resolved Lockout*	*% of failed conciliation*	*Rate of violation= Violation cases/cases disposed*100*
Mean	58.4736	19.9324	26.832	13.7896	41.526	76.0676	9.2152	17.7668
Standard Error	5.171446	2.855059	1.27172	0.68574	5.171385	4.184164	0.618227	1.591135
Median	53.85	14.04	28.59	13.26	46.15	85.25	9.21	16.11
Standard Deviation	25.85723	14.2753	6.358599	3.428699	25.85692	20.92082	3.091135	7.955676
Sample Variance	668.5963	203.7841	40.43178	11.75598	668.5804	437.6808	9.555118	63.29278
Kurtosis	-0.73451	0.173562	1.035917	0.247938	-0.73443	6.490297	-0.62066	-0.95378
Skewness	0.18252	0.935965	0.155978	0.567072	-0.18251	-2.24398	0.170681	0.230895
Range	87.5	56.2	30.48	14.1	87.5	92.93	11.59	26.68
Minimum	12.5	0	13.1	8.29	0	0	3.68	5.49
Maximum	100	56.2	43.58	22.39	87.5	92.93	15.27	32.17
Sum	1461.84	498.31	670.8	344.74	1038.15	1901.69	230.38	444.17
Count	25	25	25	25	25	25	25	25

Source: Calculated by researcher

The success rate of adjudication varied from 8.29% in 2011 to 22.39% in 2003 with a range of 14.1 and that of conciliation varied from 13.1% in 2013 to 43.58% in 2001

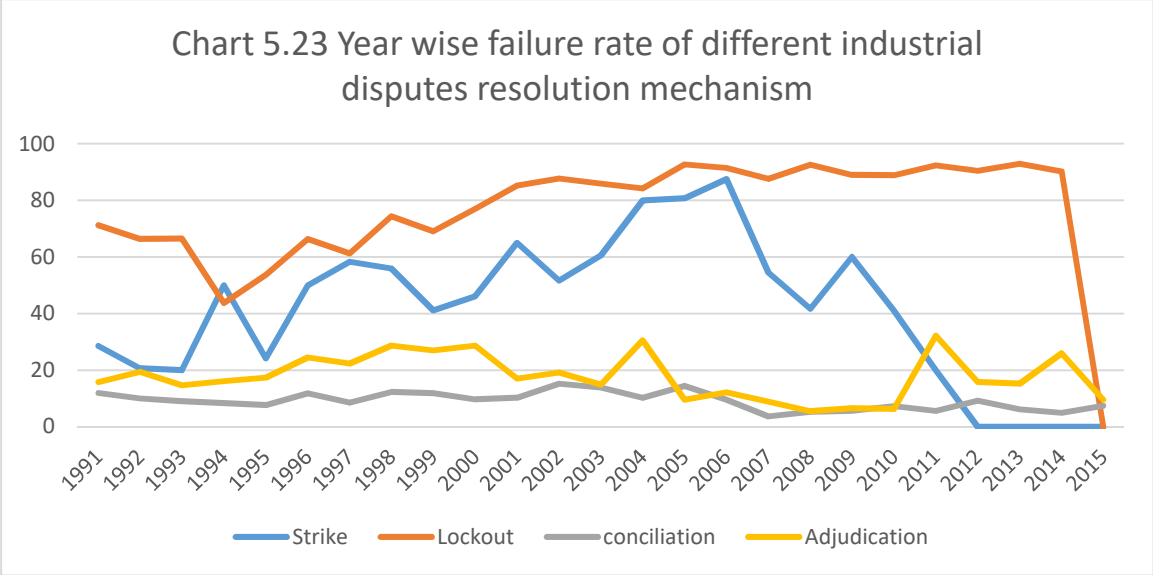
with a range of 30.48. However, there are wide variations in cases of strikes and lockouts. The success rate of strike varied from 12.5% in 2006 to 100% from 2012 onwards with a range of 87.5 and that of lockout varied from 0% in 2015 to 56.2% in 1994.

The failure rate of conciliation varied the least from 3.68% in 2007 to 15.27% in 2002 with a range of 11.59 and that of adjudication varied from 5.49% in 2008 to 32.17% in 2011 with a range of 26.68. The failure rate of strike varied between 0% in 2012 onwards and 87.5% in 2006 whereas that of lockout varied from 0% in 2015 to 92.93% in 2013.



From the above graph it can be seen that the success rate of strikes decreased gradually from 1992 to 2006 though there were some year wise fluctuations. After 2006 it again started increasing rapidly with a dip in 2009. The success rate of lockouts increased from 1991 to 1994 when it reached its peak and then like strike it continued to fall. However, unlike strike it did not recover in 2006 but continued its fall.

The success rate of conciliation gradually decreased from 1991 to 2000 and interestingly reached its peak the very next year i.e., 2001. Thereafter it again started decreasing gradually and reached lowest points in 2009 and 2013. The success rate of adjudication was comparatively steady with crossing the 20% marks only once in 2003 which falls between two low points in 2002 and 2004.



The failure rate of strikes steadily increased and reached its peak in 2006 with year wise fluctuations and thereafter started declining steadily. The failure rates of lockout decreased from 1991 to 1994 and then continuously increased till 2014. From 2005 onwards the failure rates of lockouts hovered around 90%.

The failure rates of conciliation were quite steady over the years and hovered around 10%. It was lowest in 2007 and then it slightly increased but remained steady. The failure rates of adjudication were almost always above that of conciliation and had its peaks in 200, 2004 and 2011. The rates were lowest and below 10% only during the period from 2005 to 2010.

5.5 Result and Discussion

The results of the study are discussed below in accordance with the objectives:

5.5.1 Effectiveness of Strikes and Lockouts

The study reveals that during the period under study, 762 cases of strikes were reported of which 66.01% were due to monetary issues like wages or bonus, 6.30 % were due to personnel issues like dismissal, retrenchment etc., only 2.23% were due to economic viability and 25.46% were due to other unclassified causes. After 2006, there was a sharp fall in the number of strikes which further dipped after 2011.

The leftist trade unions were famous for their militancy and may be after 2006 they were losing their grip over the trade union movement in the state. It may also happen because of the pro-industry stance of the then government. It may not be mere coincidence that in 2006 the then Government of West Bengal took control of the land in Singur for setting up the Nano factory by the Tatas. In 2011, the new government came into power and took strong stand against strikes which resulted in almost zero strikes in West Bengal. In 2014, 314 number of strikes happened because of the industry wide strike in tea industry for wage settlement.

In both the cases of strikes and lockouts the years 2006 and 2011 are significant. In 2006, the left front government look over land in Singur for setting up Nano plant by the Tatas and in 2011 there is a change in the government. How these incidents affected the strikes and lockouts is beyond the scope of this study but clearly demonstrates the impact of external political situations in Industrial Relations.

Again, from the data it can be seen that monetary issues are major causes of strikes whereas personnel and economic viability are the major reasons of lockouts.

Duration ratio measures average duration of strikes. Longer duration means both the parties are adamant and it also reflects the resilience of the workers. Politically in West Bengal both 2006 and 2011 were important as during those times there were shifts in political power. And interestingly, in subsequent years the duration ratios were quite high. It may reflect the power shift in the trade unions also. Generally, the employers were reluctant to accept the newly powerful trade union and its leaders which may lead to strike on any issue. The newly formed trade unions and their leaders need to establish their authority and acceptance to both the workers and the employers. In old traditional organizations it becomes difficult as the employers were dealing with leftist trade unions and their leaders for quite a long time and were comfortable with them. They naturally hesitate to accept the unknown and step out of their comfort zone. Interestingly, the duration ratio was lowest in 2006 when the actual shift of power was happening. It may reflect the lack of confidence of the trade union leaders as they were not sure whether the workers were still with them.

However, from 2006 to 2010 the coverage ratio suddenly increased which means more workers were involved in the strikes which in turn mean large organizations were mostly affected by it.

It may be a reflection of the struggle for power between existing leftist trade unions and emerging Trinamool Congress trade unions. May be that is the reason why it drastically fell in 2011 onwards when the shift of power was complete.

Time loss ratio peaked just after liberalisation in 1992 and then again from 2007 to 2010 after which it became almost nil. Time loss ratio measures average mandays loss for strikes. It takes into account both the duration of strikes and the number of workers involved. Time loss ratio was very high in 1992 which was right after the announcement of new economic policy. Then it was lowered and reached its lowest in

1998. It was moderately high in 1999 and 2000. It was moderate in next four years i.e., from 2001 to 2004. In 2005 it spiked though again in 2006 it was low. Interestingly, highest time loss was recorded in 2007. For next three years i.e., from 2008 to 2010 it decreased comparatively but remained quite high. It became negligible from 2011 onwards.

The trends in all these three ratios reflect the significance of external political situation in strikes.

The lockout duration ratio gradually increased over the study period but the coverage ratio steadily declined. Lockout duration ration measures the average duration of lockouts and lockout coverage ratio measures average number of workers affected by lockouts. During the period under study there is not much fluctuation in lockout duration ratio and it veered between 71 days and 190 days. However, the lockout coverage ratio steadily declined over the years. From around 750 it came down around 300. On the one hand it may reflect that gradually smaller organizations are getting affected by lockouts. But it may also be for other reasons. After 1991, most of the organizations opted for continuous downsizing. Therefore, for the same organization over the years the coverage ratio decreased with the decreasing number of workers.

The lockout time loss ratio started declining after 2006 though before that it was more or less stable. Lockout Time Loss ratio measures the average mandays loss due to lockouts. As it can be seen from the graph, lockout time loss ratio fell sharply in 1995 then remained within a band with some fluctuations but with a trend of slight gradual increase. But after 2006 it steadily fell though at a very low rate.

During the period under study, there were 731 strikes of which 539 were resolved. Average rate of resolution is 57.84%. The rate of resolution started falling after 1992 though picked up in 1995 and 1999. The lowest rate of resolution is during 2004-05. After 2009 the rate of resolution steadily went up. Here also, the rate of resolution of strikes increased from 2006 and drastically jumped from 2011. The fall in success rate after 1995 may be attributed to the New Economic Policy and Globalisation because of which the trade unions to a great extent lost their power. The number of strikes also drastically fell after 2005 which may be due to the transition of power. Perhaps the trade unions were not confident enough to go in for strikes.

From 1991 to 1995 except 1994 the rate of resolution of strike was quite high. Thereafter the rate fell but remained moderate till 2003. For subsequent three years (2004, 20005, 2006) it was quite low. Thereafter it became moderate till 2010. In 2011 it was quite high and thereafter the rate of resolution of strike is hundred percent. So external political situation does not only affect the nature of strike in terms of duration, number of workers involved and mandays lost but it also influences the success of strikes. The new government in 2011 adopted a policy of zero tolerance to strikes the outcome of which is reflected in the data. The large number of strikes in 2014 was due to the industry wide strike in tea industry.

The data reveals that there were 6166 lockouts during the period under study of which 1083 were resolved making the average rate of resolution 19.61%. The rate of resolution of lockouts steadily declined over the years starting from 1994. The reason for low rate of resolution of lockouts are understandable as 46.90% of lockouts are due to economic non-viability which cannot be resolved through the mechanisms under Industrial Disputes Act, 1947.

The rate of resolution of lockouts continuous fell from 1994. One of the reasons is that most of the lockouts were due to economic reasons. Many lockouts are also closures in the disguise of lockout. The Industrial Disputes Act, 1947 stipulates that

for an industry employing 100 or more workers, permission for closure from the government should be taken and the workers were also should be paid compensation at the rate of 15 days' wages for every completed years of work. Government usually does not give permission for closure. So declaring lockout is the easiest way out for the employers. Further, they need not pay the compensation also if there is lockout instead of closure. The workers are also benefitted as they get a financial assistance from the government at the rate of Rs. 1500/- per month till he attains the age of superannuation or till he gets the terminal dues under the scheme of FAWLOI (Financial Assistance to the Workers of Locked Out Industries).

5.5.2 Effectiveness of Conciliation

The number of disputes raised before the conciliation machinery was above 3600 from 1991 to 1993 and thereafter it started decreasing. From 1996 to 2002 it ranged between 2250 and 2469 and then started increasing again till 2007. After 2007 it drastically fell and reached its lowest 2015. Again, it can be linked with the change in the political power. The shift of political power started from 2006 and interestingly number of disputes reached its peak in 2006. It may reflect the political struggle between the trade unions during this period. As the outgoing left trade unions realised that they have lost the support of the workers they became hesitant to raise disputes. The emerging trade unions and their leaders were new in the field and were not also sure about actual support of the workers and as such they also avoided raising disputes in the appropriate forum. In 2011, as the new government came into power with overwhelming majority they did not depend on the conciliation machinery to settle their dispute. The situation remained more or less same till 2015.

The number of disputes handled by the conciliation machinery steadily fell from 8045 in 1991 to 5102 in 1998. The fall continued except in 1999 and 2000.

The percentage of disposal was between 40 and 53 till 2001 but thereafter drastically fell to 37.88% in 2002 and the fall continued except in the year 2007. One of the

reasons for this decreasing effectiveness of conciliation machinery may be shift of focus of the government. In 2001, the Government shifted its focus from the organised to the unorganised sector workers and in 2001 in introduced a Scheme of Provident Fund for Unorganised Workers which was administered by the same conciliation machinery.

During the period under study, the conciliation machinery on an average handled around 4779 disputes per year of which 1927 disputes were disposed. The rate of disposal to the total disputes handled comes to 37.17%.

Average failure rate during the period under study is 9.21% and disposal through tripartite settlement is 26.82%. However, the actual disposal rate is much higher because many times disputes are shown to be settled at bipartite level or as otherwise though the dispute got settled because of conciliation.

The percentage of failed conciliation ranged from 3.69 in 2007 to 15.27 in 2002 with a mean of 9.21. Here also after 2006, the percentage was quite low with the exception of 2012 when it was 9.21.

The failure rate ranged from 3.24 in 2004 to 5.79 in 2002 with a mean of 4.75. Thereafter it drastically decreased ranging from 0.90 in 2015 to 2.36 in 2006 with a mean of 1.47. Thus overall failure rate is quite negligible and it appears that from 2006 the rate of failure had decreased further. In West Bengal, Politically, the year 2006 was a significant year. Here the rate of failure low does not mean that conciliation was effective. If the disputes remain pending for long, then also the rate of failure will be low.

Next we will see the rate of resolution of disputes. From 1991 to 2001 it was considerably high ranging from 35.70 in 1996 to 49.57 in 1997 with a mean of 42.29.

From 2002 to 2015 it decreased considerable with the exception of 2007 when it was 45.19. If we do not take into consideration the year 2007 then the rate of resolution from 2002 to 2015 ranged from 11.25 in 2015 to 33.44 in 2003 with a mean of 25.51. Again 2001 was the year in which the government of west Bengal launched a scheme for unorganised workers and the focus shifted for industrial relations to labour welfare which may be the reason for sudden fall in rate of resolution of disputes by the conciliation machinery.

However, this rate of resolution does not correctly reflect the effectiveness of conciliation as the pending cases has not been taken into account. After taking into account the pending cases the success rate jumps. From 1991 to 2006, the success rate ranged from 84.73 in 2002 to 92.29 in 1995 with a mean of 89.07. From 2007 to 2015, the success rate ranged from 93.85. Thus the decreasing resolution rate did not affect the success rate. It is because when resolution rate was low the number of pending cases increased.

The data reveals that conciliation is mostly successful in monetary issues and other miscellaneous issues. Failure of conciliation is more pronounced in personnel issues.

5.5.3 Effectiveness of Adjudication

During the 25 years' study period the state adjudication machinery handled on an average 1634 disputes per year and disposed of around 274 cases. The mean rate of disposal per year is 16.67%. A dispute when adjudicated upon results in award or no award. The parties have the option of preferring an appeal in higher courts. But in some cases, the parties neither go for appeal nor comply with the award. In such cases, the other party files complaint regarding violation of award. On an average, in 48 cases per year there are complaints regarding violation of award. Further, unlike

conciliation, the adjudicating machinery has the power to dispose of the cases on its own. They do not need the consent of the parties to pronounce the award. Considering these, the rate of disposal by the adjudicating machinery is quite low. If we deduct the cases of award violation, the effective rate of disposal comes to around 13.79%.

During the study period the rate of disposal ranged from 11.95 in 2004 to 26.32 in 2003 with a mean of 16.67 and standard deviation of 3.40. Rate of violation of award ranged from 5.49 in 2008 to 32.17 in 2011 with a mean of 17.77 and standard deviation of 7.96. Rate of successful disposal ranged from 8.29 in 2011 to 22.39 in 2003 with a mean of 13.79 and standard deviation of 3.43.

Data reveals that till 2005 there is a relation between the number of cases of disputes handled and the number of cases of disputes disposed. However, after 2005 the number of disposals stabilised around 200 irrespective of the number of disputes handled and the number of disputes handled steadily declined over the years. The number of disputes handled declined because the number of disputes referred or filed for adjudication declined.

It is seen that even after adjudication in many cases the award is not honoured/implemented. Apart from violation of award the parties have the option of preferring an appeal in higher courts. However, data relating to cases where the parties preferred appeal is not available.

It is interesting to note that when the disposal rate showed an upward trend the violation rate showed downward trend and vice versa. One reason may be that there is a time lag between the two. Complaints of violation of award are filed not immediately after the case is disposed of by award. The affected party waits for some time and even pursues the case before the other party before filing a formal complaint.

To compare the effectiveness of all the methods it is necessary to study both their rates of success and failure. If the criterion of rate of success is considered, then most successful is strike followed by conciliation. However, strike has a cost attached to it. The workers lose their wages during the strike and the employer also loses his production. In addition, there is uncertainty about the outcome. If the rate of failure is considered, then conciliation is most effective as the rate of failure of conciliation is the least.
