With the advent of the industrial revolution disputes became common in most of the industrial economies of the world. In India, however, industrial disputes became evident only during the First World War. After independence, with the enlargement of the level of industrial development, proliferation of the disputes took place particularly after 1960’s. Since then disputes have changed their form and magnitude. The present study focused on the incidence and impact of disputes in pre and post-reform periods. An attempt was also made to identify the determinants of disputes, strikes and lockouts in the manufacturing sector from 1981 to 2006.

6.1 SUMMARY AND CONCLUSIONS

6.1-1 SUMMARY

The present study was done in order to:

(i) Study the relative shares of strikes and lockouts in total disputes in pre and post-reform periods in all sectors.

(ii) Analyze the shares of strikes and lockouts in public and private sectors in pre and post-reform periods.

(iii) Find out the industry-wise comparative shares of public and private sectors in total disputes / strikes / lockouts in pre and post-reform periods.

(iv) Identify the causes of disputes, strikes and lockouts in manufacturing industries in all sectors.

On the basis of the above objectives and extensive review of literature, the following hypotheses were empirically tested:

i. As compared to the pre-reform period, the relative share of strikes decreased and the share of lockouts increased in manufacturing industries in post-reform period in all sectors.
ii. In comparison to the pre-reform period, the relative share of strikes decreased and the share of lockouts increased in public sector in post-reform period. The same was expected in private sector.

iii. In contrast to the pre-reform period, the comparative share of public sector decreased and the share of private sector increased in disputes, strikes and lockouts in post-reform period.

iv. The degree of trade unionization was positively related with disputes and strikes and negatively related with lockouts. However, real wages and salaries per worker were negatively related with disputes and strikes but positively related with lockouts. The coefficients of average factory size and economic reforms were negatively affecting disputes, strikes and lockouts. The coefficient of the dummy variable for the historic textile strikes was positively related with the dependent variable.

The study covered 46 industries (3 digit NIC) in manufacturing sector and a comparison of pre and post-reform periods was done. The data were taken from the various issues of Statistics on Industrial Disputes, Trade Unions in India, published by Government of India, Ministry of Labour and Employment, Labour Bureau, Shimla and Chandigarh. The data for number of workers, number of factories and wages and salaries were taken from the Annual Survey of Industries published by Government of India, Ministry of Statistics and Programme Implementation, CSO, New Delhi. The data for Wholesale Price Index were taken from the publications of RBI. Labour bureau provides the data on number, mandays lost and workers involved in disputes/ strikes/ lockouts. However, the 3 digit industry wise data on disputes were available from 1981-2007 and the industry wise data on strikes and lockouts were available from 1984-2007. With these variables various ratios were calculated. In order to find out the causes of disputes/strikes/lockouts from 1981 to 2006, the model given by Saha and Pan (1994) was followed. An attempt was also made to study the changes in the determinants in pre and post-reform periods. The dependent variable was the mandays lost in disputes/strikes/lockouts per worker and the independent variables were the degree of trade unionization (trade union membership per worker), real wages and salaries per worker and the average factory size (number
of workers/number of factories). Two dummy variables were taken (D1 and D2). D1 was included to capture the impact of the historic textile strikes and the similar such disputes which occurred till 1984 in selected industries and D2 was incorporated to capture the impact of economic reforms on disputes, strikes and lockouts in all industries. Feasible generalized least squares was used for data analysis. The correlation between the different independent variables was also checked and the values were found to be well below the limit.

6.1-2 CONCLUSIONS

The present study contributes to an unblemished understanding of disputes, strikes and lockouts in the Indian manufacturing sector. The empirical analysis of forty-six industries in the manufacturing sector was done at 3 digit level for estimating the incidence, impact and determinants of disputes. In the current study many significant conclusions were unfolded.

INCIDENCE AND IMPACT OF DISPUTES

This study unveiled that when the pre and post-reform periods were compared, the incidence of disputes was found to decline in the latter period. But their impact and coverage had increased as mandays lost per dispute and mandays lost per worker involved in disputes increased in majority of the industries in all sectors in the latter period.

The sector-wise comparison revealed that relatively private sector witnessed more disputes which caused more loss of mandays and involved more workers than public sector in both pre and post-reform periods. Also, the share of the private sector increased further in the latter period. This was further supported with majority of the industries indicating a rise in mandays lost per dispute and mandays lost per worker involved in disputes and in workers involved per dispute. However, few industries in public sector also experienced a relative increase in their share in mandays lost in post-reform period.
It was also observed that out of all the industries in manufacturing sector, spinning, weaving and finishing of textiles industry had the major share in disputes and the analysis revealed that private sector had a major share in the disputes in this industry. The problem of disputes was also found to be critical in private sector in manufacture of other textiles industry, office, accounting, and computing machinery industry, medical appliances and instruments and appliances industry, watches and clocks industry and television and radio transmitters and apparatus for line telephony and line telegraphy industry. The same severity was observed in public sector in refined petroleum products industry, basic precious and non-ferrous metals industry, special purpose machinery industry, electronic valves and tubes and other electronic components industry and optical instruments and photographic equipment industry.

**INCIDENCE AND IMPACT OF STRIKES**

Strikes had a major share in all the variables in both pre and post reform periods but their share in frequency and the loss of mandays diminished in the latter period in all sectors. The same trend was observed in each sector (public and private).

It was further observed that more strikes took place in private sector and these caused more loss of mandays and involved more workers as compared to the public sector in both pre and post-reform periods. The share of the private sector increased further in the latter period. In post-reform period, the mandays lost per strike and mandays lost per worker involved in strikes and workers involved per strikes also reflected the similar trend.

However, it was observed that more industries represented a rise in the workers involved per strikes in all sectors in post-reform period indicating that more workers participated in strikes in the same period. The private sector also revealed similar trend.

**INCIDENCE AND IMPACT OF LOCKOUTS**

Lockouts had a minor share in all the variables in both pre and post reform periods in all sectors. However, the share of lockouts in total number of disputes increased and
these caused more loss of mandays in the latter period in all sectors, public sector and private sector.

The sector-wise comparison revealed that more lockouts took place in private sector in both pre and post-reform periods. The lockouts caused more loss of mandays and involved more workers in private sector than the public sector in both the periods. The relative share of the private sector augmented further in the post-reform period in all the variables. Same trend was observed in the mandays lost per lockouts, mandays lost per worker involved in lockouts and workers involved per lockouts in the post-reform period.

It was also observed that in private sector more industries revealed a rise in the mandays lost per worker involved in lockouts as compared to mandays lost per lockouts in post-reform period. This implies that in private sector in post-reform era lockouts caused more loss to the workers.

Lastly, it was also revealed that public sector reported an increase in the workers involved per lockouts in post-reform period.

Thus, the analysis revealed that more lockouts took place in private sector in post-reform period. These lockouts caused more loss of mandays in post-reform period. But in private sector more workers were involved in strikes and in public sector more workers were involved in lockouts in post-reform period.

**DETERMINANTS**

In the fifth chapter the determinants of disputes were identified. The analysis uncovered that the degree of trade unionization had a significant impact on the dependent variables as the coefficient was significant in many industries. Half of the total industries revealed a negative and significant relationship between disputes and degree of trade unionization, which runs contrary to the perception about trade unions. It was further found that some industries depicted positive and significant relationship between disputes and unionization. Similar trend was observed in the pre and post-reform analysis of disputes. However, when the analysis was done for strikes and lockouts (overall period), it was found that though the coefficient was significant in
many industries but the number of industries depicting positive relationship was very close to the number of industries depicting negative relationship. Thus, no clear trend was observed. However, it was also observed that in post-reform period many industries revealed positive and significant relationship of strikes with trade unionization. Thus, in post-reform era unions led to more strikes in some industries.

Real wages and salaries per worker were also found to be a significant variable. However, the number of industries depicting positive and significant relationship was quite close to the percentage of industries that revealed negative and significant relationship with disputes, strikes and lockouts in overall period. During the pre-reform period, out of the total industries in which the coefficient was significant, comparatively, more industries revealed a positive and significant relationship of wages with disputes and lockouts. However, in post-reform period, relatively, more industries revealed negative relationship of wages with disputes and lockouts. Thus, after the reforms there has been a change in the perceptions of the employers. However, no clear trend was observed in the pre and post-reform periods of strikes.

Average factory size was also found to be significantly affecting disputes as the coefficient was significant in more than fifty percent industries. Out of the total industries in which the coefficient was significant, majority of the industries showed negative and significant relationship of average factory size with disputes. This implies that in these industries large factories faced fewer disputes. This trend was specifically observed after reforms. However, the coefficient was also found to be insignificant in many industries. The analysis of strikes and lockouts revealed that the coefficient of average factory size was significant in more than fifty percent industries. Out of the total industries in which the coefficient was significant, comparatively, many industries revealed negative and significant relationship of average factory size with strikes and lockouts. It was further observed that the number of industries indicating negative relationship of average factory size with strikes and lockouts increased specifically after reforms. However, more than forty percent industries showed insignificant relationship between average factory size and strikes. The same trend was observed with lockouts as the percentage of industries indicating insignificant relationship was close to fifty percent. Thus, no such clear trend was
observed. Also, some industries revealed positive and significant relationship of average factory size with disputes, strikes and lockouts.

The dummy variables were also found to be significant determinants. D1 was found to be positive and significant in many industries indicating a major impact of severe disputes like the historic textile strike on these industries. It was also found to be negative and significant in electric lamps and lighting equipment industry. This implies that disputes in one industry lead to a decline in disputes in other industry. The analysis further revealed that the dummy variable D2 had a negative and significant relationship with mandays lost in disputes per worker in majority of the industries. The same coefficient was found to have a significant relationship with strikes as the coefficient was significant in more than seventy percent industries. From the total industries in which the coefficient was significant, comparatively, majority of the industries showed negative and significant relationship between the dummy variable and strikes. Although the coefficient had a significant relationship with lockouts in fifty five percent industries yet no clear trend was observed as the coefficient was insignificant in forty six percent industries.

6.11 RECOMMENDATIONS

The analysis highlighted that although there was a decline in disputes after the implementation of reforms yet there was a rise in the share of lockouts and largely these took place in the private sector. Some public sector industries were also found to be inflicted with this syndrome and were thus, experiencing lockouts in post-reform period. Disputes are thus, changing their dimensions thereby affecting production, revenues, wages and economy at large.

Therefore, the present study proposes the following recommendations:

(i) Before the introduction of economic reforms in the Indian economy, public sector was the leader and private sector was the follower. However, with the introduction of reforms reversal of the role took place as more space was given to the private sector to expand and lead the economy. Although, the
future development of the economy is now heavily dependent on the private sector yet the Government agencies should keep a watch on those industries which have experienced repeated disputes in private sector. And the industries in private sector which have experienced minimum disputes or no disputes should be kept in special category by the same agencies.

(ii) Since, some of the industries in public sector have also witnessed a surge in disputes; therefore, a specific policy should be designed exclusively for public sector as this sector has, still, special significance for the Indian economy. Public sector was started and expanded to achieve varied objectives specifically social objectives which are unlike the private sector. Hence, the two should not have similar policies for regulating disputes. It is further suggested that such a policy for the public sector should be framed based on the findings of a comprehensive research of those public sector undertakings which have cut down disputes in post-reform period.

(iii) It is also suggested that an independent bureau should be set up by the Government in every state so that significant attention could be paid to the local issues affecting disputes. The task of this bureau should be to identify the reasons behind the occurrence of strikes and lockouts in each state. Such bureaus should cover industries in both public and private sectors.

(iv) It is further suggested that some recognition should be given to those units which have not experienced disputes or have experienced fewer disputes in the long run. An incentive in the form of branding the firms as ‘Dispute Free Firm’ should be given. This could be done for both public and private sectors. Another incentive for reducing disputes could be given in the form of devising a system of assigning ‘stars’ to the firms based on their performance in disputes. The assigning of the stars should be done on a scale of one to five depending on the performance of the firm related with disputes. Workers and trade unions of such firms should also be recognized through the introduction of either rewards or certification or monetary benefits. Such
rewards may encourage the workers to perform better as they may feel recognized. Even private sector should introduce such rewards.

(v) Special workshops or training programs should be organized for the employers and trade unions from time to time so that both sides can communicate with each other. Special cells should be set up in plants with trained councilors where a worker can go and share not just the professional problems but also the personal problems and a solution be provided to him. Such a step strengthens the bond between the two sides.

(vi) The unions / workers should carefully calculate the desired wage hike preceding their negotiations with the employers. Their bargaining skills should also be strengthened failing which they fall short of clinching a sufficient wage hike.

(vii) Since, size of the firm was also found to be affecting disputes, thus, specific studies should be done by the Government of those industries in which the coefficient was significant. Based on such studies appropriate policies should be devised and implemented.

6.III LIMITATIONS OF THE STUDY AND FUTURE SCOPE

(i) While studying the disputes in manufacturing sector from 1981-2007, certain industries could not be covered in the analysis. The data were on different NIC classifications and the conversions of the same for some industries required 4 digit data but the data on disputes were not available on 4 digit.

(ii) The analysis of the determinants of disputes could not be done for public and private sectors as the data on trade union membership was not available sector wise at 3 digit level. Hence, the analysis of only all sectors was done.
(iii) The study does not cover the employers union as the data were not available for 3 digit industries.

(iv) Indiscipline and violence is one of the important determinants of disputes. Such a variable can reveal interesting insights into the problems of disputes. However, the industry wise 3 digit data on this variable are not available.

With the recent disputes taking an ugly turn it is imperative that specific research into the causes of disputes emerging in private sector be done. Plant based research should also be encouraged. Since in India there are heterogeneous states which have their different economic, social and political conditions, therefore, it is suggested that a comparative study of the causes of disputes in the respective states could be done so as to provide further insight into the problems of disputes.