

CHAPTER V

Methodology

5.1: Review of Existing Literature

Several studies have been made of various aspects of tea industry. These are mainly on financial and geographical aspects of tea industry. Till date, a very little effort has been made to find out the relationship between the productivity of employees with the industrial relations in the tea estates of West Bengal.

A brief review of those studies is mentioned here:

Dr. Sharit Bhowmik made a study on “Class Formation in the Plantation System” in 1981. In this study Dr. Bhowmik attempted to investigate into different aspects of class formation among tribal workers engaged in the Dooars tea gardens of West Bengal. This study reflected how class consciousness emerged among garden workers¹.

Since the study was based on sociological theories, less focus was given to the aspects of labour.

Productivity and greater effort was made to show how social relations of the tribal workers changed with the changing organization of production. Three articles written by Dr. Manas Dasgupta (1988) on the trade union movement in tea plantation of Terai region is of course a pioneer in this field. It had however some limitations also. It described well the background of Terai tea plantation, plantation economy and wage of the labourers but the relationship between industrial relations with the productivity of labourers was not fully covered².

The study of Sri Umanand Phukan on “The Ex-Tea Garden Labour Plantation in Assam” in 1984, attempted to recall how labourers from different parts of the country entered into the various tea plantations of Assam and how their number grew with the passage of time during the 19th century which constituted a sizeable segment of the rural population of Assam. It explains the historical circumstances under which the immigrant tea garden workers left their regular employment. It is a socio-economic study of the workers of Assam tea plantations³.

“The History of Indian Tea Industry” conducted by Sir Percival Griffiths in 1967 was a complete study on the historical growth of Indian tea industry. While describing the evolution passage of the growth of the tea industry in India, the study also described the origin of plantation labourers, recruitment systems and the state of planters’ oppression⁴ on which the workers had to undergo during the pre-independence period.

This study, had not separately discussed the relationship between the productivity of labourers with the industrial relations in the tea plantations.

The study on “Economics of Tea Industry of India” by R.C Awasthi in 1975 was a comprehensive study on the problems of tea industry.

Along with the subject matters like finance, supplies, transport, marketing etc, this study had gone through issues relating to labourers. This study primarily dealt with the labour relations. Important indices of industrial relations such as industrial disputes, role of Governments and unions have not however been taken up significantly in this study. Moreover, the entire study was based on the tea gardens of Assam⁵.

“Tea Gardens of West Bengal” conducted by Tushar Kanti Ghosh in 1987, was a study on the land management policies of tea gardens. This study covered the history of tea industry in West Bengal land management policy, rules, regulations etc. This study established correlation between the problems of sick and closed gardens with improper land management policies⁶.

The thesis of Dr. Kanchan Sarkar titled “Study of Trade Union Organization among the Tea Workers in Terai and Dooars Region” in 1998 has discussed the trade union movement in tea industry in different periods. But the study does not provide the reaction of employers with the development of trade union movement in tea industry⁷.

The thesis of Dr. Mita Bhadra on life and labour of plantation women workers in 1992 had provided focus on the labourer of tea plantations.

It was a sociological study on women which dealt with the life of women workers in a tea plantation of Darjeeling district of West Bengal. It reflected changes in the status and role of women employed in tea industry.

A study conducted by the International Labour Organization 2005, had tried to analyse the impact of globalization on the overall tea prices in India. According to this report, the large tea companies have been benefited to the largest extent from the fall in auction prices because they enjoy tremendous power to push down the prices and by doing so, they take the advantages of depressed market condition⁸.

A study conducted by Lalit Premlal Tirkey on “Tea Plantation in the Darjeeling district of India: Geocological and Socio-Economic impacts in post-Independence period” published in 2005 by Natural Resource Institute, University of Manitoba which was conducted with the objective to find out the evolution process of tea plantations in the Darjeeling area since India’s Independence. This study concentrated mainly on geocological impact arising from development and evolution of tea plantations. It highlighted about the problems of deforestation caused by initial clearing of teas.

It has also concluded very categorically that tea plantations are unable to provide sustainable livelihood to the communities related to plantations in the same way as they once did⁹.

A study conducted by Tessy Kurian “A Study of Women Workers in the Plantation Sector of Kerala” in 2004 with the objective to find out the different roles of women workers in tea plantation.

Another study conducted by Khemraj Sharma “The Himalayan Tea Plantation Workers” in 2000. The main dimension of the study was that unlike any other areas of tea industry of the country, the basis of trade union formation was the common ethnic bonds of the leaders hailing from hilly region of Darjeeling¹⁰.

Ethnicity as a tool for consolidating working class of gardens was the guiding principle and the same is found even today. The present study highlights the nature of socio-economic conditions of the workers, their participation in trade unions, welfare measures, history of recruitment, settlement of workers etc, considering the changes brought about by the policy of Liberalization, Globalization and Privatization of Indian economy after 1991.

So, it can be stated that there had been a very little effort to study in depth the relationship between the productivity of employees with the industrial relations in the tea gardens of West Bengal.

The research works so far have been made by the different scholars of sociology and social anthropology had given much emphasis on the changing social relations of workers. But these studies have helped us to frame out objectives of the present study. It is expected that this study will be able to throw some lights on that area which remains either unexplored or under explored.

5.2: Research Questions

- i) What is the impact of industrial relations on productivity?
- ii) What is the degree of relationship between the variables of industrial relations and productivity of the tea gardens located in the Dooars region of West Bengal?
- iii) What is the relationship between the different variables of industrial relationships viz., man days used, social cost, number of disputes settled through bipartite settlement machinery and number of gate meeting with the productivity of the tea garden?
- iv) What are the impacts of globalization on industrial relations of the tea gardens located in the Dooars region of West Bengal?

5.3: Objectives of the Study

An organization as a system consisting of different inter-dependent components or sub-systems e.g. technological, managerial, people, structure etc.

The basic goals of an organization are very difficult to achieve unless different sub-systems are integrated into a structured manner for the smooth functioning of an organization. The organization, therefore, requires structuring and integrating of human activities around various sub-systems or components in order to accomplish its basic goals.

But, in this study, we are not concerned with all those multiple components or sub-systems as a whole. Rather, this study attempts to emphasize more on a specific sub-system i.e. industrial relations for understanding the specific characteristic of a particular sub-system and its relationship with productivity.

This study has regarded productivity as a performance indicator as well as the basic goal for all the organizations under the purview of this study. Productivity may be studied at the national level as well as firm level. However, a large number of factors contribute to productivity at the national level. However, at the organizational level, the two factors are important e.g. i) Technology and ii) Human Resources.

It is a universally recognized phenomenon that technological factor may be very effective and many studies have been made on the impact of technology on productivity performance.

In the past, different studies have focused on improving productivity through adopting latest technology, improved machinery, computers, robots etc.

Unfortunately, because of past success with technology, human factor has been neglected and technological factors have been given more emphasis by the management. Recently, it is realized that human factor plays no less significant role in improving productivity of a concern than technological factor.

Since, it is very difficult to measure industrial relations because industrial relations deals with a large number of individuals of different sex, age, having educational standards etc.

Industrial relations can not be directly measured. That's why an attempt has been made to select some of the action oriented parameters which generally determine the industrial relations of an organization.

Therefore the main objectives of this study are:

- i) To determine the nature of relationship between man days used and productivity of each tea garden and also the degree of relationship.

- ii) To find out the nature and degree of relationship between social cost and productivity.
- iii) To determine the nature and degree of relationship between numbers of disputes solved through bipartite settlement machinery and productivity.
- iv) To find out the nature and degree of relationship between numbers of gate meeting held with productivity.
- v) To find out the impacts of globalization on industrial relations of the tea gardens located in the Dooars region of West Bengal.

5.4: Scope of the Study

There may be number of factors that are responsible for the changes in the productivity of employee of an organization over a period of time .The same organization may be efficient in achieving productivity performance in one year than its preceding or succeeding performance between two periods. The difference between these two periods of time may be due to the difference either in technology and capacity of machine or in the state of industrial relations of a concern.

A study has been revealed that there was negligible increase in productivity in spite of share increase in capital-labour ratio during 1985 to 1991 in Indian industrial enterprises. Therefore, high-tech formulae may not be the answer to all questions concerning productivity improvement of an Indian enterprise.

As the number of factors affecting productivity is very large, it is very difficult to cover all variables for a single study. However, it would also be very difficult to deal with all the various technological and human related factors for the empirical study.

That is why; we have restricted the scope of the study to the human related factors only. Accordingly, an attempt has been made to measure labour productivity at the organization level.

Moreover, it is very complicated to translate industrial relations into quantitative terms.

We, therefore, have selected in this study some of the parameters of industrial relations to examine how far these parameters of industrial relations are responsible for changes in productivity performance and also the impact of globalization on industrial relations in the tea gardens located in West Bengal in general and Dooars region in particular.

5.5: Area of Study

It has already been stated that Dooars region of West Bengal has been selected for this empirical study. In the Dooars region there are 163 organized tea gardens. Out of 163 organized tea estates we have taken 30 tea gardens for our study. Out of 30 tea gardens five tea gardens are Govt.

undertaking, seven are run by Goodricke group, seven are run by Duncan's group, seven are run by private ownership and four are run by Tata Tea Group.

However, at the time of using random sampling method, some specific norms have been established so that organizations of diverse features can be selected.

On the basis of some selected norms e.g. i) forms of ownership ii) industry affiliation iii) availability of data iv) location etc, 30 gardens have been identified for this empirical study. We have rejected those gardens which are bought-leaf factories, small tea grower's gardens and also closed tea gardens.

5.6: Period of Study

The basic objectives of the study are to examine the impact of industrial relations on the productivity of tea gardens and to show the impact of globalization on industrial relations. We have collected data for the period i.e. 1991 to 2007.

Firstly, in order to show the impact of industrial relations on the productivity of tea gardens located in the Dooars region of West Bengal, we have taken data from 1998 onwards. The reason is that although the process of globalization in India was initiated in the year 1991, our participation in the globalization process was however reaffirmed with the establishment of the World Trade Organization in 1995.

The price situation of agricultural commodities in the international market began to show a dramatic turn around mostly from 1998 onwards. It started to fall down gradually, because of which Indian domestic price turned higher than international price, which prompted the exporters of other countries to export their agricultural commodities in the Indian market.

This situation resulted in a wide spread decline in agricultural export and had also created pressure on domestic prices which is considered to be the root cause for the crisis most particularly felt in plantation industry in general and tea industry in particular.

Secondly, in order to show the impact of globalization on industrial relations of the tea gardens located in the Dooars region of West Bengal, we have taken data from 1991 to 2006 for obvious reason. Although the process of globalization in India was initiated in the year 1991, but we observed the affect of globalization from 1998 onwards in the agricultural sector. Therefore we have divided the total time period into two segments. The first segment indicates Pre-Globalization period (1991 to 1998) and the second segment indicates Post-Globalization period (1999 onwards).

Therefore, our study covers a period of 17 years (1991-2007) to obtain a representative picture of average productivity of employees and its relationship with industrial relations and also the impact of globalization on industrial relations in the tea gardens of Dooars region of West Bengal.

5.7: Sources of Data

We have used both primary data and secondary data. Primary data have been collected through field survey in 30 tea gardens belonging to Dooars region of West Bengal. Secondary data have been collected from several tea statistics published by Tea Board, Report published by West Bengal Development Corporation and Report published by National Productivity Council.

5.8: Sampling Technique

Regarding the selection of organizations for the study, it may be stated here that a random sampling method has been applied for this purpose, as it is not possible to cover all the tea gardens of a particular region for this study. On the basis of Random Number Table, sample tea gardens were selected. Out of 30 sample tea gardens five tea gardens are Govt. undertaking, seven are run by Goodricke group, seven are run by Duncan's group, seven are run by private ownership and four are run by Tata Tea Group.

5.9: Standardization of the Parameters

The Parameters which would be used for our empirical study are stated under:

The basic objectives of the study are to examine the impact of industrial relations on the productivity of tea gardens and to show the impact of globalization on industrial relations. In our study productivity has been taken as dependent variable and the predictor variables of industrial relations have been taken as independent variables.

First of all, for measuring the productivity of tea gardens we have considered labour productivity as one of the best parameters in our study. Here we have calculated average labour productivity for measuring productivity of tea gardens. As tea industry is labour intensive industry so we are more interested to measure the productivity with the help of labour productivity parameter in our empirical study.

5.9.1: Labour Productivity

If we divide total made tea produced in a particular year by the average number of employee of that year is known as average labour productivity.

In tea garden, there are two types of workers. One is permanent worker and the other one is contractual worker or bigha worker. Bigha worker can not work throughout the year. How many bigha workers will be employed in a particular garden it depends upon the work load of that particular garden? Therefore we have taken average number of employee in our study instead of

taking only permanent workers in a particular year. Here labour productivity = total made tea produced per year/average number of employee per year.

On the other hand, to examine the impact of industrial relations on the productivity of tea gardens four parameters which are basically considered as the main parameters of industrial relations. These are man days used, social cost, number of gate meeting and settlement of disputes through bipartite settlement machinery. Most of the management usually treats these parameters as insignificant elements in explaining productivity. However, this study would concentrate on these aspects of industrial relations for assessing the nature of industrial relations of a concern. Therefore, an empirical study would not only provide valuable information relating to industrial relations scenario but also help us to identify the factors which ail the industrial relations situation.

5.9.2: Man days Used

Man days used is one of the parameters to measure industrial relations. If the man days used is the maximum then we can say that industrial relations is cordial. Mandays is calculated by multiplying average number of employee with total working days in a particular year over the period of study.

Mandays = average number of employee per year x total working days in a year.

5.9.3: Social Cost

According to the Indian Tea Association (ITA) that is working on the modalities, the four heads identified for rationalization of the social cost are medical, education, water supply (including sanitation) and housing. In our study we have considered all the above mentioned elements of social cost over the period of study.

5.9.4: Number of Gate Meeting

In our study we have mainly considered gate meeting which leads to huge amount of man days lost in the tea gardens. We have not separately considered strike and lockout as there were very few numbers of strikes and lockout cases except in the year 1999 and 2005 only in the tea gardens located in the Dooars region of west Bengal. It has also been observed that man days lost due to economic factor or technical factor, which have no direct connection with industrial relations would not be considered.

Along with strike and lockout, gate meeting is one of the most decisive factors in determining industrial relations in the tea gardens. The workers hold gate meeting to discuss about their grievances and in order to attract the notice of the management towards those grievances. The

occurrence of gate meeting in the tea gardens is more frequent than strikes but its duration is much smaller than those of strikes. The gate meeting takes place for minimum of half an hour and it can stretch to about 2 hours depending upon the gravity of the issues involved.

The gate meetings generally take place in front of the gate of the factory or the office of the management. It is held generally in the working hours of morning shift before resuming the work. All the workers of the gardens assemble in front of the gate of the factory or the staff room and raise slogans in support of their demands. The leaders of the trade union are also present during the gate meeting. Among the various issues involved in gate meeting in tea gardens, few notables are as under:

- 1) Delayed wages
- 2) Construction of new houses
- 3) Fringe benefits (umbrella, slippers, tarpaulin etc)
- 4) Additional employment
- 5) Badli workers
- 6) Electricity connection
- 7) Bonus rate
- 8) Decasualization of workers
- 9) Elephant depredation
- 10) Repairing of houses

So far as Dooars tea gardens are concerned, the occurrence of gate meeting has been a regular feature. Therefore, gate-meeting has been taken as a separate parameter to examine the impact of industrial relations on the productivity of tea gardens.

5.9.5: Numer of Bipartite Settlement Machinery

Industrial disputes are generally solved by bipartite settlement machinery and tri partite settlement machinery in the tea gardens. But in our study we have only considered the number of bipartite settlement machinery instead of tripartite settlement machinery. If any dispute is not solved through by bipartite settlement machinery then it is referred to tripartite settlement machinery.

Tripartite settlement machinery takes much time to give an amicable settlement of a particular dispute. Therefore the grievance increases .So; we are interested to see that how many disputes had been settled by bipartite settlement machinery and its affect on labour productivity over the period of our study.

5.9.6: Industrial Relations Parameters Relating to Globalization

As we are also interested to show the impact of globalization on industrial relations so we have identified the pre globalization and post globalization period. For this comparative study we have taken 1991 to 1998 as pre globalization period and 1999 to 2006 as post globalization period. After 1998 and onwards different problems took place in the tea gardens located in the Dooars region of West Bengal. During this period lockout took place at an alarming rate. 14 tea gardens were closed down only in the Dooars region. Several employers were not settled the gratuity. So mounting of gratuity dues created a fear psychosis in the minds of the existing employee that they/ their legal heirs may also be deprived of this benefit in the future. So they could not concentrate on their activities and it adversely affected their level of motivation and productivity.

On the other hand, most of the tea gardens in Dooars region have been established during the British period and it is ironical to know that the technology in use in these tea gardens are more or less the same as those being used during the British period except some slight modifications.

Globalization has no doubt thrown challenges to the industries world over, but it has created opportunities as well in the form of gradual exchanges of new ideas, knowledge, technology etc. But it is ironical that the tea industry in India has not been able to utilize these opportunities.

It has not so far gone for the modernization or up gradation of its technology for which it has to pay heavy price in the form of low productivity, high cost of production and poor quality of tea produced. Consequently, it has been losing its conventional and potential markets. On the other hand industrial relations are also deteriorating due to non payment of gratuity, higher wage, higher bonus, higher social cost etc.

Therefore, in order to find out the impact of globalization on industrial relations in the sample tea gardens of Dooars region located in West Bengal, we have taken into consideration the following parameters of industrial relations:

- a) Man days lost due to strike
- b) Man days lost due to gate meeting
- c) Quantum of gratuity dues
- d) Social cost incurred by the planters
- e) Trade union membership
- f) Quantum of money spent for up gradation of technology
- g) Promotional opportunities
- h) Status of permanent workers

In order to achieve the second objective i.e. the impact of globalization on industrial relations, we have not considered man days used and number of disputes settled through bipartite settlement machinery because these are not related to the second objective in our present study.

5.10: Research Design

For the successful completion of the research work undertaken the following steps have been adopted:

- i) The basic objective of the study is to examine the impact of industrial relations on the productivity of a tea garden. To achieve this objective, the value of correlation coefficient between labour productivity and man days used , between labour productivity and social cost , between labour productivity and number of bipartite settlement and between labour productivity and number of gate meeting of thirty tea gardens will be computed in order to know the nature of relationship.
- ii) After that, a linear regression equation model will be employed with labour productivity as dependent variable and man days used, social cost, number of bipartite settlement and number of gate meeting as independent variables in order to find out whether there is cause and effect relationship between these two sets of variables.
- iii) We will also establish multiple regression equation taking average labour productivity as dependent variable and different industrial relations parameters as independent variables in order to find out whether there is cause and effect relationship between these two sets of variables.
- iv) Afterwards an attempt will be made to examine individually the degree of relationship between them.
- v) We will also make a comparative study to observe the impact of globalization on industrial relations during pre and post globalization period in the sample tea gardens of Dooars region located in West Bengal. Necessary data for this purpose will be generated from the sample tea gardens.
- vi) After making the above analysis, we will give conclusion and recommendation on the basis of empirical results followed by bibliography and annexure.

References:

1. Bhowmik, Sharit., (1981), "*Class Formation in the Plantation System*".
2. Dasgupta, Manas., (1988), "*The Trade Union Movement in Tea Plantation of Terai Region*".
3. Umanand, Phukan., (1984), "*The Ex-Tea Garden Labour Plantation in Assam*".
4. Griffiths, Percival., (1967), "*The History of Indian Tea Industry*".
5. Awasthi C.R., (1975), "*Economics of Tea Industry of India*".
6. Ghosh, Tushar Kanti., (1987), "*Tea gardens of West Bengal*".
7. Sarkar, Kanchan., (1998), "*Trade Union Organization among the Tea Workers in Terai and Dooars Region*".
8. Bhadra, Mita., (1992), "*Life and Labour of Plantation Women Workers*".
9. Tirkey, Lalit, Premlal., (2005), "*Tea Plantation in the Darjeeling District of India: Geocological and Socio-Economic Impacts in Post -Independence Period*".
10. Sharma, Khemraj., (2000), "*The Himalayan Tea Plantation Workers*".