

Chapter- VI

Analytical Discussions and Findings

6.1: Analytical Discussions

To attain the objectives of our study, 33 sample tea estates have been chosen through stratified random sampling technique with proper proportion. Out of these 33 sample tea estates, 16 samples have been selected from Public Limited Tea Company, 13 samples have been selected from Proprietorship Tea Company, 2 samples have been selected from Partnership Tea Company, and 2 samples have been selected from Public Sector Undertakings Tea Company. The analysis has been made through diverse statistical techniques with the help of SPSS. In the following, detail of analysis and discussion has been furnished.

6.1.1: Recruitment and Selection

Tea industry is one of the labour oriented industries as it is agro based. It requires massive labour at each phase of its exertion right from the cleaning of jungle, nursery preparation, shaping the land appropriate for plantation, draining, and applying manure in the nursery as well as in the plantation, pesticides spraying, plucking, manufacturing, sorting, and then lastly dispatching it to diverse destinations. Hence, labour is regarded as the heart and soul of tea industry. Devoid of labour, not an individual tea plant can survive; as no baby survives without mother.

In tea industry, labour recruitment system is quite interesting and its history goes long back. During the initial stage of the tea industry in Bengal, labours were recruited from the nearby areas but the numbers were not sufficient. As we know, tea plantations are laying in isolated areas. So, it was not possible by the plantation management to depend only on such labours. Thus, the planters have realized the needs for the alternative sources of labour. Then they started to recruit '*Coolies*'. These *Coolies* were the actual residents of Bihar, Uttar Pradesh, and Odisha. Initially, they were bought by the British for another purpose; to pave the railway track in the northern part of our country. They were called '*Coolies*' because they had to work hard specially

lifting heavy weights, cleaning jungles, etc. Their actual livelihoods were the agricultural labour and poor peasant. However, the plantation administration has been identified that on a constant interval, a huge number of the recruited *Coolies* returned back to their respective native place to meet their families and sometimes they never returned to the tea plantation for work. To prevent this practice, the British planters have realized to settle the family of *Coolies*' to the work place i.e. in the tea plantation area and the other family members of *Coolies*' also were involved in tea plantations. Thus, the family base recruitment system has started in the tea plantations of the North Bengal region and till now this system of recruitment of workers prevail.

In tea plantations, mainly two broad categories of workers are employed: **i)** Permanent worker and **ii)** Casual worker.

i) Permanent Worker: Permanent workers are those residing inside the tea estates and whose names are entered in the estates' workers roll (Register). The position of permanent workers remains same over the years. No new permanent workers position can be created and similarly no such positions can be removed without the approval of appropriate authority. Recruitment process of such positions is family based recruitment i.e. dependant's right. If any worker dies in a particular garden, the legal heir of the deceased person gets job in that position. In addition to this, sometimes permanents workers are recruited through '*Namkati*'. '*Namkati*' is a technical term which means that worker who left the job permanently. In such situations, replacement is made by relatives or dependants of that worker who has left the job. However, in case of the above mentioned two issues, if no dependants or relatives present, recruitment is made in such positions with the consultation of unions.

ii) Casual Worker: Casual worker is technically termed as '*Bigha*' worker. Generally, *Bigha* worker primarily recruited in the peak time of year. Usually, they are recruited during the months of June to September. *Bigha* worker may be available from within the same tea estate or from the outside the tea estate. At the time of recruitment of *Bigha* worker, first precedence is given to the dependants or family members of the permanent worker of the same tea estate. When the number of existing *Bigha* workers is not sufficient, they are recruited from the external sources with consultations of the trade unions.

The process of recruitment of *Bigha* workers from within the tea estate involves a permanent worker (say, husband) whose dependant (wife) would be the *Bigha* worker. He (husband) has to apply to the plantation management. Then the plantation management would ask for medical fitness certificate issued by the Medical Officer of that tea plantation. Then only it may recruit the *Bigha* worker. While recruitment of *Bigha* worker is done from outside the plantations, the common practice is manager or his assistant would observe and ascertain the physical fitness of that person.

Besides the above two categories of workers, '*Thikka*' (contractual) workers are recruited through contractor. In such case, the entire responsibility regarding recruitment is handed over to the contractor.

The permanent workers are recruited among the dependants or through replacements. Since the number of vacancy for permanent workers remain same over the year, no new position is created. However, the criteria includes for recruitment in such positions, the person should reach at least 16 years of age and should be of sound health. To be concerned under this criterion, the

person should have to produce, medical certificate issued by the Medical Officer of that tea plantation to the plantation manager.

Promotions of labour to the higher positions of tea garden are rare in the tea plantations in this region. Only in few tea estates, some labours have been promoted in the higher positions. Those workers were promoted, their position changed to sub-staff and staff for rare cases only. No record exhibits regarding the promotion of worker to managerial position. So, it may be inferred that promotional opportunity is limited for the tea garden workers of Bengal. However, those who were promoted in the staff and sub-staff positions were only male workers. The chance of promotion of male and female workers is not equal to large extent.

So, from the above discussions, it is concluded that selection of labour by dependants' right is one of the traditional and conventional selection systems by the tea plantations in this region. If, any worker dies in a particular garden, the legal heir of the deceased person gets job in that position. If, no legal heir of that particular worker who has died is present, the management can recruit a new incumbent from within or outside the garden in consultation with the trade unions.

6.1.2: Training and Development

In our study, we have considered only workers who have been employed in the tea plantations. The managerial classes of employees have not been considered in our study. Hence, only training aspects of tea plantation workers have been studied. Since, we know that training is given only to the workers.

Chart 6.1: Overall Scenario of Training Program



Source: Field survey

The above stated Chart 6.1 clearly shows that only 36 per cent of sample tea estates are providing training to the workforce in the tea industry of Bengal region. This percentage is very negligible and it also undoubtedly signifies the passive attitudes of the administration of tea estates regarding training for their workers.

As we all know, there is a higher need of massive number of workers throughout the year in the tea plantations. Quality as well quantity of tea fundamentally depends on the types of labour force deployed to the entire process. These labour forces should be trained enough on a variety of aspects of tea cultivation and production to have the standard quality of tea. In addition to this, in the recent time, a buzz word has been arisen in the tea sector that is 'Ethical Tea Partnership' (ETP). 'Ethical Tea Partnership' has immense influences on the world tea market. Tea producers who are associated with 'Ethical Tea Partnership' are gaining extra added advantages. International buyers of tea demand for that quality of tea which has been produced under the guidelines of 'Ethical Tea Partnership'. 'Ethical Tea Partnership' primarily deals with the

sustainability in tea industry by two ways. One is associated with socio-economic status of workers and another is environmental aspect. Child labours, water conservation, conservation of soil, use of chemical and fertilizer, etc. are the codes for ETP. Since, workers are the heart and soul of tea plantation, it is crucial to educate and train them regarding the various codes that have prescribed by the ETP. But study has suggested that 64 per cent tea plantation in North Bengal region have no scope of training. Since, training is the only weapon in the hand of the plantation administration to educate and to make worker aware about the codes of ETP. Hence, our study evidently signifies that tea planters of Bengal have failed to abide by the ETP standards to a large extent. Further, it clearly implies the uncertain market of tea produced from Bengal and also the insecure future of the industry of this region.

However, in the following table, an effort has been made to explain about the positions of the tea companies based on the training program offered.

Table 6.1: Percentage of Training Program among Tea Plantations

SL No:	Types of Tea Company	Number of Tea Plantation Surveyed	Providing Training	Percentage (%)	Rank
1.	Public Limited Tea Company	16	4	25%	3
2.	Proprietorship Tea Company	13	7	53.84%	1
3.	Public Sector Undertaking Tea Company	2	0	0%	4
4.	Partnership Tea Company	2	1	50%	2

Source: Field survey

Table 6.1 shows that 33 sample tea plantations have been surveyed under the four types of Tea Company. It exhibits that the Proprietorship Tea Company occupies the top most position in terms of training program. Under the Proprietorship category, 13 plantations have been surveyed out of which 7 plantations have training program for their workers, which constitute about 53.84 per cent. The Partnership Tea Company occupies the second position in this respect. Under The Partnership Tea Company, 2 plantations have been surveyed out of which 1 plantation offered training program and which implies 50 per cent tea plantations have training provision. Subsequently, under the Public Limited Tea Company, about 25 per cent tea plantations have training provision and under the Public Sector Undertaking Tea Company, no tea plantations have training provision for their workers.

6.1.2.1: Modes of Training

Modes of training imply the way or process by which trainees acquire knowledge, attitudes, and set of skills on their current jobs. In our study, we have asked to the plantation management through which way they are providing training to their workers. However, based on the feedback of respondents, the detail accounts of modes of training in tea plantations have been presented in the following table.

Table 6.2: Modes of Training Provided by the Sample Tea Plantations

SL No.	Modes of Training	Number of Plantations	Percentage	Cumulative Percentage
1.	Mentoring	3	25	25
2.	Coaching	1	8.33	33.33
3.	Coaching & Mentoring	5	41.67	75
4.	Mentoring & Job Rotation	2	16.67	91.67
5.	Lectures & Conferences	1	8.33	100

Source: Field survey

Table 6.2 depicts that the modes of training program have been adopted by the different tea plantation companies in the North Bengal region. From Chart 1, we have observed that only 12 tea plantations out of 33 sample tea plantations have training program for their workers. These 12 tea plantations fall under different types of tea plantation companies. However, we know that there are lots of modes of training under on-the-job and off-the-job training methods. Table 2 delineates, five tea plantations have the combination of Coaching & Mentoring modes of training which constitutes about 41.66 per cent. In three tea plantations have Mentoring modes of training which constitutes 25 per cent and in two tea plantations have Mentoring & Job Rotation modes of training which constitutes 16.66 per cent. One tea plantation offers Coaching modes which are 8.33 per cent and finally Lectures & Conferences modes offer by one tea plantation which is also 8.33 per cent.

However, this is undoubtedly signifies from the above discussion that Coaching & Mentoring modes of training are the mostly preferred in the tea plantation of this locale. Coaching & Mentoring comes under the on-the-job training method. This method of training is most preferred because workers in tea plantations like to work under someone's supervision, who guides them at the time of work.

6.1.2.2: Measurement the Effectiveness of Training Program

To measure the effectiveness of training program which have been initiated by different types of tea companies, the overall performance of workers before participating and after participating of training program has been taken into contemplation. For this purpose, an individual garden has been considered as a sample unit. Managers of sample tea plantations have been interviewed. They were asked about the performance of trainees before attaining the training program and after attaining the training program. However, we have identified seven areas where training is

given. These are Plucking, Manure, Weeding, Spraying, Pruning, Planting, and Manufacturing. Five point Likert Scale has been developed for this purpose. Based on the nature of the collected data, Wilcoxon sign ranks test has been used.

Wilcoxon signed ranks test is one of the non-parametric tests. This is like as paired sample t-test but it is used while the assumption of paired sample t-test is not meet. One of the most central assumption of paired sample t-test is the data should be normally distributed. In the study, first, we have examined the normality of the collected data and based on the result of the normality test we precede to the subsequent statistical test for each types of Tea Plantation Company.

i). Proprietorship Tea Company

Test of Normality

Ho: Data is normally distributed.

Table 6.3: Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
After training	.278	7	.109	.772	7	.022
Before training	.302	7	.053	.791	7	.034

a. Lilliefors Significance Correction

The normality test has shown in the above Table 6.3. Since we know, in case of the sample size lesser than 2000, the Shapiro-Wilk test is followed; otherwise, the Kolmogorov-Smirnov test is preferred. In case of Proprietorship Tea Companies, since we have only seven respondents, the Shapiro-Wilk test is followed.

However, the calculated p value of the Shapiro-Wilk test in case of after training and before training are .022 and .034 respectively which are below 0.05. Hence, the null hypothesis is

rejected. Now, based on the result of normality test, decision might be taken that paired sample t-test cannot be performed by this data set. Hence, Wilcoxon signed ranks test is appropriate.

Wilcoxon Signed Ranks Test

Null Hypothesis (Ho): There is no significant disparity between the performance of workers before providing training and after providing training.

Table 6.4: Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
After training	7	24.5714	2.14920	23.00	29.00
Before training	7	20.7143	2.05866	19.00	25.00

The above descriptive statistics (Table 6.4) is experimental that the mean values of same set of data are different in respect of time. The mean value for the same sample set varies 24.5714 and 20.7143 for 'After training' and 'Before training' respectively. Standard deviation is also found to be different, 'Before training' it was 2.05866 and 'After training' it is 2.14920. This is lucid that training program has impact on the performance of the workers i.e. the average performance has improved after attaining training program. But to be confirmed about the mean's difference statistically important or not, Test Statistics have to follow in the Table 6.

Table 6.5: Ranks

	N	Mean Rank	Sum of Ranks
Before training – After training			
Negative Ranks	7	4.00	28.00
Positive Ranks	0	.00	.00
Ties	0		
Total	7		

Table 6.5 exposes the mean rank for Negative Ranks is 4.00 and for Positive Rank is 0.00 respectively. Here, we can assume that there exists only a difference between the mean of

Negative Ranks and Positive Ranks. But this would be confirmed by the significant p value of the following test. In the following table, the significant p value is shown.

Table 6.6: Test Statistics

	Before training - After training
Z	-2.530
Asymp. Sig. (2-tailed)	.011

The above table exposes, Z value (Sig.) of the Wilcoxon signed ranks test is **.011** which is less than 0.05 (5% level of significance). The result explains that the disparity between Negative Ranks and Positive Ranks is statistically momentous from each other.

Hence, we reject the null hypothesis. Thus, there is significant dissimilarity between the performance of workers before providing training and after providing training. Finally, we may assert that training program for tea workers have great influences on enhancing workers present job performances.

ii). Public Limited Tea Company

Test of Normality

Ho: Data is normally distributed.

Table 6.7: Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
After training	.384	4	.	.760	4	.048
Before training	.367	4	.	.758	4	.045

a. Lilliefors Significance Correction

The normality test is shown in the above Table 6.7. We know, in case of the sample size smaller than 2000 the Shapiro-Wilk test is followed. Since, for the case of Public Limited Tea Company the sample size is four, no significance value is given by Kolmogorov-Smirnov test. However, the calculated p value of the Shapiro-Wilk test in case of after training and before training are .048 and .045 respectively which are below 0.05. Hence, the null hypothesis is rejected. The outcome of normality inferred that paired sample t-test cannot be performed by this data set. Hence, Wilcoxon signed ranks test is appropriate.

Wilcoxon Signed Ranks Test

Null Hypothesis (Ho): There is no significant distinction between the performance of workers before and after providing training.

Table 6.8: Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
After training	4	21.0000	8.75595	15.00	34.00
Before training	4	18.5000	8.42615	13.00	31.00

The above descriptive statistics (Table 6.8) shows that the mean values of the two related data set are different in respect of time. The mean value for the same sample set varies 21.0000 and 18.5000 for ‘After training’ and ‘Before training’ respectively. This is apparent that training program has impact on the performance of the workers i.e. the average performances of workers has improved after attaining training program. However, to be confirmed whether these mean’s difference is statistically momentous or not, the following tests have to follow.

Table 6.9 depicts that mean rank for Negative Ranks is 2.50 and for Positive Rank is 0.00 respectively. Here, we have noticed differences between the Negative Ranks and Positive Ranks

mean values. We cannot conclude any statistical inference until this confirms by the significant p value of the test. In the following table, the significant p value is shown.

Table 6.9: Ranks

		N	Mean Rank	Sum of Ranks
Before - After	Negative Ranks	4	2.50	10.00
	Positive Ranks	0	.00	.00
	Ties	0		
	Total	4		

Table 6.10: Test Statistics

	Before training – After training
Z	-1.857
Asymp. Sig. (2-tailed)	.063

Table 6.10 reveals that the value of Z is significant as the value (.063) is more than 0.05 (5% level of significance). This result of test statistics implies that the value of positive mean rank and negative mean rank is not statistically significantly unusual from each other.

So, based on the test statistics, null hypothesis (there is no significance difference between the performances of workers before providing training and after providing training) is accepted. This further confirms that training program provides by the Public Limited tea companies are not statistically significant.

iii). Partnership Tea Company

Under the Partnership Tea Company, only one sample tea plantation has been surveyed. With this no statistical analysis is feasible. Since, we have taken into consideration the data of

individual tea plantation for this purpose i.e. individual tea garden is a sample unit. Manager's opinion about the average performance of all workers before training and after training is considered. However, according to manager, workers average performance score before training was 23 and after training it is 27.

From this score, it can be generalized that the training program was effective enough. Further, Partnership Tea Companies in the North Bengal region benefited through the workers training program.

6.1.3: Wage Structure of the Tea Plantation Workers

The prevailing rate of wage for the tea plantation workers in the tea industry of Bengal region is comparatively lower than the tea industry of other parts of the country. This difference of wage is also observed abysmally lesser than the agricultural minimum wages. Presently, the existing wage rate of tea worker in tea plantations of North Bengal is Rs. 132.50 per day. On the other hand, the approved minimum wage for unskilled worker of agricultural activities is Rs. 220 (without food) in West Bengal (with effect from 1st July, 2017). However, management of tea plantations is paying fringe benefits in addition to the basic wage which accounts Rs.142.94 for the Terai and Dooars and Rs. 144.60 for the Darjeeling.

The determination of wage rate in the tea industry of Bengal is made through the tripartite agreement in which representatives of trade unions, representatives of planters associations and representatives from Government are present. Usually, once in a period of three years interval, the representatives are considered mutually to secure the minimum rate of wage. In the following table, a brief outline of yearly wage along with its percentage changes has been presented:

Table 6.11: Yearly Wages and its Percentage of Growth

Year	Wage in Rs.	Percentage of Growth
2001	45.9	-
2002	49.9	8.714597
2003	54	8.216433
2004	54	0
2005	56.5	4.62963
2006	59	4.424779
2007	62	5.084746
2008	66.1	6.612903
2009	70.6	6.807867
2010	75.1	6.373938
2011	75.1	0
2012	85	13.18242
2013	90	5.882353
2014	95	5.555556
2015	112.5	18.42105
2016	122.5	8.888889
2017	132.5	8.163265

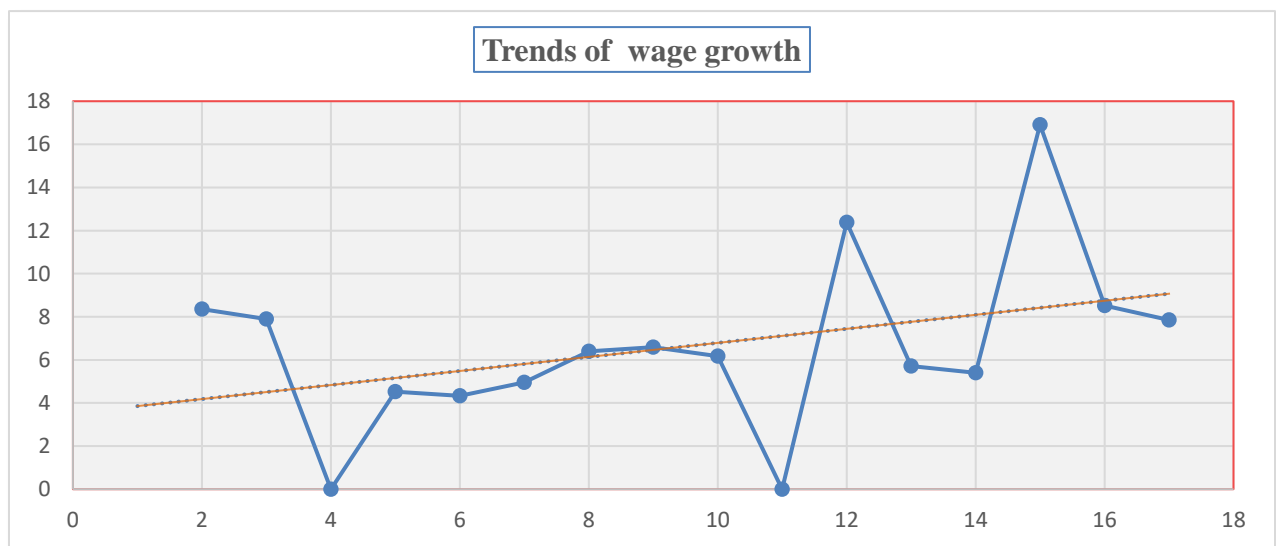
Source: Combination data of Labour Department of West Bengal

The above Table 6.11 clearly illustrates the growth of wages for tea workers in Bengal over the years. The growth pattern is observed zigzag in nature. From 2001 to 2011, it is found that the percentage changes of amount of wage moves below 10 per cent. Surprisingly, a notable change

i.e. 13.18 per cent is found in 2012. There is a genuine clue behind this sudden change of wage rate. This is because of changes of Government in West Bengal. The year 2011 was the political transition period in Bengal, so during that period, the political condition was in serious turmoil. Due to this condition, no change was made in 2011. However, at the end of this year on 4th November 2011, memorandum of settlement of wage was signed. Hence, the actual implication of this settlement of wage was not took place in 2011. Though, it was mentioned in the settlement that the implication of this would from 1st April, 2011. However, the ruling Government then realized the need to improve the conditions of labour and made a notable change of daily wages in 2012. Again, the ruling Government before the election in the state assembly of 2016 in Bengal, brought a drastic change in the wage rate (18.42 per cent) in 2015. In the history of tea industry of Bengal, this wage growth of 18.42 per cent is undoubtedly a record.

So, it may be concluded that the changes of wage rate in the tea industry of Bengal is directly linked with the political influences to a large extent. However, in the following chart a trend line has been presented for easy representation of the wage growth.

Chart 6.2: Trends of Wage Growth



The above chart reveals that the growth of wage rate of tea workers of Bengal over the phase of time has followed a typical randomness. From this trend of wage growth, we cannot infer any conclusions until it is statistically proved. Hence, it is imperative to justify statistically, whether the sequence of observations of growth rate of wage over the period of time is random or not. However, in the following Run test, it confirms the randomness of wage growth.

Run Test

H₀: The growth rate of wage is random.

Table 6.12: Run Test

Year	Wage	Percentage Change	Sign of Change
2001	45.9	-	
2002	49.9	8.714597	
2003	54	8.216433	
2004	54	0	- Run 1
2005	56.5	4.62963	+ Run 2
2006	59	4.424779	- Run 3
2007	62	5.084746	+
2008	66.1	6.612903	+
2009	70.6	6.807867	+Run 4
2010	75.1	6.373938	-
2011	75.1	0	- Run 5
2012	85	13.18242	+ Run 6
2013	90	5.882353	-

2014	95	5.555556	- Run 7
2015	112.5	18.42105	+ Run 8
2016	122.5	8.888889	-
2017	132.5	8.163265	- Run 9
$ Z \text{-Statistics} = \frac{ r - \mu }{\sigma}$		Positive Run (n_1) = 6 Negative Run (n_2) = 8 Total Run (r) = 9 Calculated $Z = 0.65$	

The calculated z value is = **0.65**

At 5% level of significance, the tabulated value of $|Z|$ -statistics is 1.96. Since, the calculate value of $|Z|$ is less than the tabulated value, the null hypothesis is accepted. Hence, conclusion can be drawn based on the Run test that the sequence of growth rate of wage is random.

Since 2001, the wage growth rate for workers of tea industry in Bengal region has not been followed a systematic pattern. It is preferred that the wage growth rate should follow a systematic pattern. Since we know, the wage or salary in the organized sector grows based on the consumer price index. In case of tea industry of Bengal, the wage growth is based on political influences. Not even, wage for tea workers is based on the prescribed minimum wages of the state. Due to which the wage growth pattern is observed volatile in nature. These may be the probable reasons behind the sudden strikes, closures, and lockouts of tea estates in Bengal. Due to which, the industry became vulnerable.

6.1.4: Working Conditions of Tea Plantation Workers

In this section, under working conditions of tea workers in Bengal, two working condition related provisions have been studied. These are average working hours and average overtime

hours. Though there are several other working conditions related provisions available in the Plantation Labour Act, 1951 for the tea workers. Due to the complicatedness in data gathering, only these two provisions of the Act have been considered in our study.

However, average working hours and average overtime hours of plantation workers have been studied with the help of one sample t-test. The rationale behind choosing one sample t-test, we have attempted to measure the standard working hours that has been prescribed by the Act with the actual working hours of worker. Further, we have justified the normality of our collected data. In the following, detail analyses have been presented.

6.1.4.1: Average Working Hours

For measuring the actual average working hours of tea worker with standard average working hours, an effort has been made to showcase it based on the ownership pattern of tea estate. However, first of all, normality has been justified and based on the result of it one sample t-test has been conducted.

However, as per the PLA 1951, the average working hours for the adult worker is 48 hours in a week and it assumed as standard for our study. Based on this standard, one sample t-test has been designed.

i). Public Limited Tea Company

Test of Normality

Ho: Data is normally distributed.

Table 6.13: Tests of Normality

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Average working hours	.147	16	.200*	.959	16	.641

From the Test of Normality table 6.13, it is observed that the value of Shapiro-Wilk is **.641** which specifies that our null hypothesis is accepted, i.e. data is normally distributed. So, one sample t-test can be performed.

One Sample T-test

Ho: Sample mean = Population mean.

Table 6.14: One-Sample T-Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Average working hours	16	51.4375	1.67207	.41802

From the table 6.14, it is observed that under the category of Public Limited Tea Company, 16 sample tea plantations have been surveyed to compare their actual weekly average working hours with the standard weekly average working hours. However, the table clearly shows that the actual mean of weekly average working hour is 51.4375 which is greatly higher than the standard value. The value of standard deviation is 1.67207 which is not satisfactory for this case.

Table 6.15: One-Sample T-Test

	Test Value = 48					
	T	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Average working hours	8.223	15	.000	3.43750	2.5465	4.3285

From the above table 6.15, it is revealed that the value of p is less than .05 which implies, the sample mean is not equal to the population mean. Further, it indicates that the sample mean is significantly different from the population mean.

From the outcome of the analysis, it is found that the actual working hours differ from the standard working hours. It signifies that workers under the category of Public Limited Tea Companies work more hours in a week than the stipulated working hours that have been prescribed in the Plantation Labour Act, 1951. This seems good to us that workers can have more earnings due to more work. In fact, the factual scenario is totally different. Managers and the supervisors most of the time do not tend to calculate the workers' extra hours on duty in order to satisfy the owners or the directors. The owners and the directors always strive for cost minimization by any means. This practice is in vogue in about half of the tea estates under the Public Limited Tea Company in Bengal.

ii). Proprietorship Tea Company

Test of Normality

Ho: Data is normally distributed.

Table 6.16: Tests of Normality

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Average working hours	.138	13	.200*	.972	13	.914

From the test of normality table 6.16, it is observed that the value of Shapiro-Wilk is **.914** which is above the generally accepted value of p (.05). Hence, we may conclude that our data is approximately normally distributed. So, one sample t-test may be conducted.

One Sample T-test

Ho: Sample mean = Population mean.

Table 6.17: One-Sample T- Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Average working hours	13	51.2308	1.69085	.46896

From the table 6.17, it is observed that under the category of Proprietorship Tea Company, 13 sample tea plantations have been surveyed for comparing their actual weekly average working hours with the standard weekly average working hours. However, the table clearly shows that the mean of average working hours is 51.2308 which found much higher than the standard value. The value of standard deviation is observed to be 1.69085 which is not satisfactory for this case.

Table 6.18: One-Sample T-Test

	Test Value = 48					
	T	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Average working hours	6.889	12	.000	3.23077	2.2090	4.2525

From the above table 6.18, it is revealed that the value of p is less than .05 (**.000**) which indicates that the sample mean is significantly different from the population mean.

From the outcome of the above analysis, it is found that the actual working hours is significantly different from the standard working hours. Since, the value of mean difference is observed to be 3.23077, it implies that workers under this category of tea plantation company work more hours than the stipulated working hours mandated in the Plantation Labour Act, 1951. Similar to Public Limited Tea Company, in most of the Proprietorship Tea Company the malpractice regarding extra working hours of workers continues to a larger extent. It is crucial to note in this connection, the largest part of the Proprietorship Tea Company in Bengal is owned and managed by the Marwari community. They presume that investing in tea plantation is a kind of gambling. They are always profit centered. They don't bother about Plantation Labour Act, labour, tea

plant, environment, ecology, market, and even sustainability of the industry. This kind of attitudes of the owner of tea plantation makes the industry vulnerable.

However, under the Public Sector Undertaking Tea Company and Partnership Tea Company, only two samples from the each category of tea companies have been drawn. So, for these two categories of tea companies, no statistical analysis has been made. But a brief description has been presented for easy representation of working hours.

Public Sector Undertaking Tea Company of Bengal managed by the Andrew Yule Group, a public sector enterprise, calculates the workers overtime in a proper way and pays wage accordingly. In Partnership Tea Companies, on the other hand, violates the actual practice of overtime calculations and actual payment on overtime hours.

6.1.4.2: Average Overtime Hours

To compare the actual average overtime hours of tea worker with standard average overtime hours, an endeavor has been made to present it based on the ownership pattern of sample tea estate. However, before going to the one sample t-test, normality of gathered data has been justified.

However, as per the PLA 1951, the average overtime hours for the adult worker is 54 hours in a week and this is assumed as a standard hour in this study. Then, based on this standard, apposite analysis has been furnished.

i). Public Limited Tea Company

Test of Normality

Ho: Data is normally distributed.

Table 6.19: Tests of Normality

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Average overtime hours	.146	16	.200*	.953	16	.533

From the Test of Normality in table 6.19, it is observed that the value of Shapiro-Wilk is **.533** which indicates that data is normally distributed. Hence, we can move to one sample t-test.

One Sample T-test

Ho: Sample mean = Population mean.

Table 6.20: One-Sample T-Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Average overtime hours	16	57.5625	2.06458	.51615

Table 6.20 reveals that under Public Limited Tea Company, total 16 sample tea plantations have been surveyed. The value of mean for actual average overtime hours of worker is 57.5625 which is much higher than the standard test value of 54 hours. However, in the following table, it proves the statistically momentous disparity between the actual and standard overtime working hours of worker.

Table 6.21: One-Sample T-Test

	Test Value = 54					
	T	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Average overtime hours	6.902	15	.000	3.56250	2.4624	4.6626

From the above table 6.21 it is revealed that the value of p is less than .05 (**.000**) which specifies that the sample mean is notably unusual from the population mean.

From the outcome of the above analysis, it is also found that the actual average working hours is significantly unlike from the standard working hours. Since, the mean difference is noticed 3.56250; it implies that individual worker under Public Limited Tea Company works 3.56250 hours more in a week than the stipulated average working hours that have been prescribed by the Plantation Labour Act, 1951. Further, this also confirms that Public Limited Tea Companies are violating the provisions of the Act.

ii). Proprietorship Tea Company

Test of Normality

Ho: Data is normally distributed.

Table 6.22: Tests of Normality

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	Df	Sig.
Average overtime hours	.138	13	.200*	.972	13	.914

From the normality table 6.22, it is observed that the value of Shapiro-Wilk is **.914** which indicates that data is normally distributed. Hence, one sample t-test can be carried on.

One Sample T-test

Ho: Sample mean = Population mean.

Table 6.23: One-Sample T-Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Average overtime hours	13	58.7692	1.69085	.46896

Table 6.23 reveals that under Proprietorship Limited Tea Company, total 13 sample tea plantations have been surveyed. The value of mean for actual average of overtime hours of workers is 58.7692. It is undoubtedly much higher than the standard test value of 54 hours. In contrast to Public Limited Tea Company, the mean value of actual average overtime hours is more for Proprietorship Limited Tea Company. Since we know, the owners of this kind of tea companies are profit centered. Profit maximization is their prime objective. They are not concerned about labour. However, in the following table, it validates the statistically significant disparity between the actual and standard overtime working hours of worker.

Table 6.24: One-Sample T-Test

	Test Value = 54					
	t	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Average overtime hours	10.170	12	.000	4.76923	3.7475	5.7910

From the above table 6.24, it is observed that the value of p is less than .05 which implies that the sample mean is extensively diverse from the population mean.

From the above one sample t-test, it is found that the weekly actual average overtime working hours is considerably diverse from the weekly standard average working hours. Here, mean difference is observed to be 4.76923. This difference of mean is also higher than of the Public Limited Tea Company. Further, it implies that workers under this category of tea plantation companies work added hours than the stipulated overtime working hours that have been approved by the Plantation Labour Act, 1951. Pathetic to note that in the case of more works in terms of hours beyond the stipulated overtime hours, workers do not receive any wage.

However, from the study of working conditions of tea plantation workers in Bengal, we can arrive at two subtle issues. Firstly, they work beyond the stipulated hours but due to the malpractice of plantation management, their extra working hours are not considered for wage payment. Secondly, worker works for overtime but the time frame is beyond the stipulated time that prescribed by the Act. Hence, conclusions can be strained based on the above elicited issues that working conditions of tea plantation workers in Bengal is unexpectedly poor. Though, in the study, only two aspects of working conditions have been exposed there are several other measures of working conditions exist.

6.1.5: Health, Safety, and Welfare of the Tea Plantation Workers

Health, safety, and welfare of the tea workers have been measured in accordance with the PLA, 1951. In our study, we have compared the health, safety, and welfare facilities of different types (ownership pattern) of tea companies in the study area with the help of one way ANOVA. For the purpose of our study, we have taken into consideration the previous four years average expenses of the sample tea estates on health, safety, and welfare of the workers. However, for conducting one way ANOVA, the following assumptions should be satisfied:

- a) Dependent and independent variable;
- b) Test of normality; and
- c) Homogeneity of variances

a) The dependent variable should be continuous. In our study, the dependent variable is previous four years average expenses of health, safety, and welfare. So, these are continuous data. The independent variable should possess various levels. In our study, the independent variable is ownership pattern and it has four levels i.e. Partnership Tea Company, Public Limited Tea

Company, Proprietorship Tea Company, and Public Sector Undertakings Tea Company. Thus, the first criterion serves.

However, assumption **b) Test of normality**, and **c) Homogeneity of variances** will be justified for health, safety, and welfare individually.

Detail analyses have been presented below:

6.1.5.1: Health of the Tea Plantation Workers

Test of Normality

Normality test suggests us whether we will apply parametric test or nonparametric test. If the data set is somehow normally distributed then it would be parametric test and on the other hand, if the data set is not approximately normally distributed, it would be nonparametric test. Since, one way ANOVA is one of the parametric tests; normality is a serious criterion.

Ho: Data is normally distributed.

Table 6.25: Tests of Normality

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Health expenses	.077	33	.200*	.988	33	.968

The normality test has been exposed in the above Table 6.25. Since, we know that if the sample size is smaller than 2000, the Shapiro-Wilk test is followed; otherwise, the Kolmogorov-Smirnov test is suggested. In the case of this study, we have only 33 respondents. So, the Shapiro-Wilk test has been followed.

In case of health expenses, the calculated p value of the Shapiro-Wilk test is **.968** which is above 0.05; hence, the null hypothesis is accepted. From the extracted result of the normality test, conclusion may be drawn that the data set is somewhat normally distributed.

Homogeneity of Variances

Ho: There is no significant disparity between the group's variances.

Table 6.26: Test of Homogeneity of Variances

Levene's Statistic	df1	df2	Sig.
1.842	3	29	.162

From the above table 6.26, it is clearly shown that the calculated value for Levene's test is 1.842 with a significant (p) value of **.162**. The significant value is more than the generally accepted value of alpha ($p > .05$). Hence, we keep up the null hypothesis for the homogeneity of variance. It can be concluded that there are no statistically significant differences among the variances of four groups.

However, for conducting the one way ANOVA, the data set has met the stipulated criteria. Now, we can conduct the following analysis.

Analysis of Variances (ANOVA)

Hypotheses

Ho: There is no significant disparity among the various types of tea plantation company's average health expenses in the North Bengal region.

Ha: There is significant disparity among the various types of tea plantation company's average health expenses in the North Bengal region.

Table 6.27: Descriptive

Ownership pattern	N	Mean	Std. Deviation	Std. Error	Minimum	Maximum
Public Limited	16	8.9291	2.62986	.65747	2.90	14.70
Proprietorship	13	5.3162	2.66075	.73796	.68	9.92
Public Sector Undertakings	2	7.4200	6.81651	4.82000	2.60	12.24
Partnership	2	8.4500	2.39002	1.69000	6.76	10.14
Total	33	7.3853	3.24487	.56486	.68	14.70

The Table 6.27 describes that total 33 tea plantations have been surveyed and the table further describes mean of average expenses incurred by the different tea plantation company. Health expenses expresses the amounts of money spend on workers health purpose.

As per the mean value of the health expenses, Public Limited Tea Company occupies the top most position (8.9291) followed by Partnership Tea Company (8.4500), Public Sector Undertakings Tea Company (7.4200), and Proprietorship Tea Company (5.3162). However, from these mean values of health expenses, we can easily interpret about the health scenario of the tea companies. As it is clearly showing in the above table, Public Limited Tea Company provides better health measures to its workers in contrast to other tea companies in Bengal. However, from this descriptive table, it cannot be justified whether there is statistically major difference exists among different types of tea companies in terms of average health expenses. In the following table, we have confirmed about it.

Table 6.28: ANOVA

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	96.059	3	32.020	3.855	.019
Within Groups	240.875	29	8.306		
Total	336.933	32			

From the ANOVA table 6.28, it is clearly experimental that the F value is 3.855 and the corresponding p value is **.019** which is less than the generally accepted value of p (.05). Hence, our null hypothesis is rejected and thus we may conclude that there is a statistically considerable disparity of average health expenses among various types of tea companies. Further, it infers that the health facilities of different tea plantations in the North Bengal region are not same. From this significant F value, we cannot determine exactly where and more precisely between in which group the difference exists. However, in the next table with the help of post hoc analysis, we have confirmed about it.

The F ratio of the ANOVA, we came to know that some sort of statistically important differences exist somewhere among the groups being studied. Subsequently, post hoc analyses are meant to indicate where the difference exists.

In table 6.29, it is detected that the difference exists only between Public Limited Tea Company and Proprietorship Tea Company. Since, the significant p value in this particular case is **.011** which is less than the generally accepted value of p (.05).

Table 6.29: Multiple Comparisons

Dependent Variable: Health Expenses

Tukey HSD

(I) ownership	(J) ownership	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Public Limited	Proprietorship	3.61291*	1.07613	.011	.6810	6.5448
	Public Sector Undertakings	1.50906	2.16151	.897	-4.3800	7.3981
	Partnership	.47906	2.16151	.996	-5.4100	6.3681
Proprietorship	Public Limited	-3.61291*	1.07613	.011	-6.5448	-.6810
	Public Sector Undertakings	-2.10385	2.18905	.772	-8.0679	3.8602
	Partnership	-3.13385	2.18905	.491	-9.0979	2.8302
Public Sector Undertakings	Public Limited	-1.50906	2.16151	.897	-7.3981	4.3800
	Proprietorship	2.10385	2.18905	.772	-3.8602	8.0679
	Partnership	-1.03000	2.88202	.984	-8.8821	6.8221
Partnership	Public Limited	-.47906	2.16151	.996	-6.3681	5.4100
	Proprietorship	3.13385	2.18905	.491	-2.8302	9.0979
	Public Sector Undertakings	1.03000	2.88202	.984	-6.8221	8.8821

*. The mean difference is significant at the 0.05 level.

Therefore, we can remark that health facilities provided by the tea companies in north Bengal region are not equal. Since, it is detected that between the Public Limited Tea Company and the Proprietorship Tea Company, the entire scenario of health benefits are utterly different. Further, the mean difference between these two companies has observed to be 3.61291. In fact, this mean difference is the highest among the four groups.

6.1.5.2: Safety of the Tea Plantation Workers

Test of Normality

Ho: Data is normally distributed.

Table 6. 30: Tests of Normality

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Safety expenses	.108	33	.200*	.973	33	.568

From table 6.30, it is observed that the calculated p value of Shapiro-Wilk test is **.568** which is above 0.05, so, the null hypothesis is accepted i.e. the data set is normally distributed. Hence, with this data parametric test can be conducted.

Homogeneity of Variances

Ho: There is no significant difference between the group's variances.

Table 6.31: Test of Homogeneity of Variances

Levene's Statistic	df1	df2	Sig.
1.027	3	29	.395

From table 6.31, it is observed that the F value for Levene's test is 1.027 with a Sig. (p) value of **.395**. The significant value is greater than the alpha of .05 ($p > .05$). So, we retain the null hypothesis for the homogeneity of variance. Thus, it can be inferred that there are no statistically cabalistic differences among the variances of four groups. Hence, the assumption of homogeneity of variance is up to standard.

However, for conducting the one way ANOVA, the data set has matched the stipulated criteria. Now, we can conduct the following analysis.

Analysis of Variance (ANOVA)

Hypotheses

Ho: There are no significant dissimilarities among the various types of tea plantation company's average safety expenses in the North Bengal region.

Ha: There are significant dissimilarities among the various types of tea plantation company's average safety expenses in the North Bengal region.

Table 6.32: Descriptive

Ownership Pattern	N	Mean	Std. Deviation	Std. Error	Minimum	Maximum
Public Limited	16	2.6850	.90309	.22577	.54	3.62
Proprietorship	13	1.8738	.43441	.12048	1.02	2.78
Public Sector Undertakings	2	3.8500	.09899	.07000	3.78	3.92
Partnership	2	1.5900	.70711	.50000	1.09	2.09
Total	33	2.3697	.89081	.15507	.54	3.92

Table 6.32 of safety describes a detail account of safety expenses of different types of tea companies. As per mean value of the safety expenses, Public Sector Undertakings Tea Company holds the apex position (3.8500) followed by Public Limited Tea Company (2.6850), Proprietorship Tea Company (1.8738), and Partnership Tea Company (1.5900). However, from these mean values of safety expenses, we can easily interpret about the safety scenario of the tea companies. As it is clearly showing in the above table, Public Sector Undertakings Tea Company provides better safety measures to its workers in contrast to other tea companies in Bengal. In terms of standard deviation, Public Sector Undertakings Tea Company is also in far better

position. Since, the value of standard deviation is observed to be .09899. However, from this descriptive table, it cannot be justified whether there is statistically considerable difference exists among different types of tea companies in terms of average safety expenses. The following table confirms us about it.

Table 6.33: ANOVA

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	10.385	3	3.462	6.689	.001
Within Groups	15.008	29	.518		
Total	25.393	32			

From ANOVA table 6.33, it is observed that the F value is 6.689 and the corresponding p value is **.001** which is less than the generally accepted value of p (.05). Hence, our null hypothesis is rejected and we may conclude that the significance disparity exists among the average safety expenses of the different tea plantation companies i.e. safety expenses of different tea plantations in the North Bengal region are not same. In the next table, it will be ascertained where the difference exactly exists.

From the F ratio of the ANOVA, we have confirmed that statistically significant differences exist somewhere between the groups being studied. Post hoc analysis confirmed us accurately where the different exists.

In table 6.34, it is detected that the difference exists between Public Limited Tea Company and Proprietorship Tea Company with the significant p value (**.025**), Proprietorship Tea Company and Public Sector Undertakings Tea Company with the significant p value (**.006**), Partnership Tea Company and Public Sector Undertakings Tea Company with the significant p value (**.019**).

Table 6.34: Multiple Comparisons

Dependent Variable: Safety Expenses

Tukey HSD

(I) ownership	(J) ownership	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Public Limited	Proprietorship	.81115*	.26861	.025	.0793	1.5430
	Public Sector Undertakings	-1.16500	.53954	.159	-2.6350	.3050
	Partnership	1.09500	.53954	.201	-.3750	2.5650
Proprietorship	Public Limited	-.81115*	.26861	.025	-1.5430	-.0793
	Public Sector Undertakings	-1.97615*	.54641	.006	-3.4649	-.4875
	Partnership	.28385	.54641	.954	-1.2049	1.7725
Public Sector Undertakings	Public Limited	1.16500	.53954	.159	-.3050	2.6350
	Proprietorship	1.97615*	.54641	.006	.4875	3.4649
	Partnership	2.26000*	.71938	.019	.3000	4.2200
Partnership	Public Limited	-1.09500	.53954	.201	-2.5650	.3750
	Proprietorship	-.28385	.54641	.954	-1.7725	1.2049
	Public Sector Undertakings	-2.26000*	.71938	.019	-4.2200	-.3000

6.1.5.3: Welfare of the Tea Plantation Workers

Test of Normality

Ho: Data is normally distributed.

Table 6.35: Tests of Normality

	Statistic	Df	Sig.	Statistic	Df	Sig.
Welfare expenses	.117	33	.200*	.977	33	.694

In case of welfare expenses, the calculated p value of the Shapiro-Wilk test is **.694** which is above 0.05, so, the null hypothesis is accepted. In another way, we may conclude that the data set is approximately normally distributed.

Homogeneity of Variances

Ho: There is no importance difference among the group's variances.

Table 6.36: Test of Homogeneity of Variances

Levene's Statistic	df1	df2	Sig.
2.507	3	29	.079

From the above table 6.36, it is clearly shown that the F value for Levene's test is 2.507 with a Sig. (p) value of **.079**. The Significant value is greater than the generally accepted value of alpha ($p > .05$). Hence, we retain the null hypothesis (no difference) for the assumption of homogeneity of variance and conclude that there are no considerable differences among the variances of four groups.

However, the assumption of normality and homogeneity are satisfied and we may proceed for ANOVA.

Analysis of Variance (ANOVA)

Hypotheses

Ho: There are no significant disparities among the various types of tea plantation company's average welfare expenses in the North Bengal region.

Ha: There are significant disparities among the various types of tea plantation company's average welfare expenses in the North Bengal region.

The Table 6.37 of welfare of tea workers describes the mean value of welfare expenses ownership pattern wise. As per the mean value of the average welfare expenses, Public Limited Tea Company stands in the apex position (17.6925) followed by Proprietorship Tea Company (14.7908), Partnership Tea Company (6.1950), and Public Sector Undertakings Tea Company (6.1500).

Table 6.37: Descriptive

Ownership pattern	N	Mean	Std. Deviation	Std. Error	Minimum	Maximum
Public Limited	16	17.6925	5.23228	1.30807	9.29	29.26
Proprietorship	13	14.7908	2.12496	.58936	11.04	17.80
Partnership	2	6.1950	4.53255	3.20500	2.99	9.40
Public Sector Undertakings	2	6.1500	.91924	.65000	5.50	6.80
Total	33	15.1530	5.34356	.93019	2.99	29.26

However, interpretation can be drawn based on the average expenses made by the tea companies during the last four years; Public Limited Tea Company provide comparatively better welfare facilities to its workforces. From the mean value of average welfare expenses, the position of tea companies can only be identified. It cannot be justified whether there is statistically important difference exists among different types of tea companies in terms of average welfare expenses. The following table assures us about it.

Table 6.38: ANOVA

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	427.490	3	142.497	8.499	.000
Within Groups	486.226	29	16.766		
Total	913.716	32			

From ANOVA table 6.38, it is discerned that the F value is 8.499 and the corresponding p value is **.000** which is less than the generally accepted value of p (.05). Hence, our null hypothesis is rejected and we may infer that there are statistically considerable dissimilarities among the various types of tea plantation company's average welfare expenses in the North Bengal region. However, more precisely to observe exactly where the difference subsists, the next multiple comparisons undoubtedly helps us.

Table 6.39: Multiple Comparisons

Dependent Variable: Welfare Expenses

Tukey HSD

(I) ownership	(J) ownership	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Public	Proprietor	2.90173	1.52893	.251	-1.2638	7.0673
	Partnership	11.49750*	3.07101	.004	3.1305	19.8645
	PSU	11.54250*	3.07101	.004	3.1755	19.9095
Proprietor	Public	-2.90173	1.52893	.251	-7.0673	1.2638
	Partnership	8.59577*	3.11013	.046	.1222	17.0694
	PSU	8.64077*	3.11013	.044	.1672	17.1144
Partnership	Public	-11.49750*	3.07101	.004	-19.8645	-3.1305
	Proprietor	-8.59577*	3.11013	.046	-17.0694	-.1222
	PSU	.04500	4.09468	1.000	-11.1110	11.2010
PSU	Public	-11.54250*	3.07101	.004	-19.9095	-3.1755
	Proprietor	-8.64077*	3.11013	.044	-17.1144	-.1672
	Partnership	-.04500	4.09468	1.000	-11.2010	11.1110

From F ratio of the ANOVA in Table 6.38, we have confirmed that statistically momentous difference exist somewhere among the groups being studied. Post hoc analysis elaborately described in the above table 39, specifically where the differences exist.

Here, it is spotted that the differences exist among Public Limited Tea Company and Partnership Tea Company (p = .004), Public Limited Tea Company and Public Sector Undertakings Tea

Company ($p = .004$), Proprietorship Tea Company and Partnership Tea Company ($p = .046$), Proprietorship Tea Company and Public Sector Undertakings Tea Company ($p = .044$). In all the cases, p value is less than .05.

6.2: Major Findings

The major findings of the study are as follows:

6.2.1: Recruitment and Selection of the Tea Workers

1. From the study it has found that in tea plantation the number of permanent job positions remains same over the years. No new job position is created in tea plantation.
2. Recruitment in tea plantation is made only on account of death of permanent worker, enduringly left of job by permanent worker and replacement in jobs.
3. One of the peculiar issues have been found in recruitment of tea worker that is only the legal heir gets job of the deceased person or the person who left job permanently. For replacement in job, only family members get job in that position.
4. On special occasions, fresh recruitment is done rarely on non-availability of legal heir of deceased person or person who left the job permanently, these is done in consultation with the unions.
5. The study found that recruitment of *Bigha* workers is made during the peak season only. Study also found that *Bigha* workers are recruited from within and outside of tea estate.
6. The study revealed that physical fitness is the prime criterion for recruitment of permanent and as well as for the *Bigha* worker.

7. The study further confirmed that the traditional and conventional methods of recruitment systems are being followed by the tea plantations in the study region.

6.2.2: Training and Development of the Tea Workers

1. Our study found that training is crucial for the tea workers. Since, tea plantation industry is one of the labour concentrated industries. A huge quantum of labour is necessary all over the year for nurturing tea plant and for manufacturing process of tea.
2. The study has established that only 36 per cent i.e. in 12 out of 33 sample tea estates have training provision for their workers.
3. Proprietorship Tea Company occupies the top most position in terms of training program offered. Under this company, 7 sample tea estates have training provision out of 13 sample tea estates surveyed, which is about 53.84 per cent.
4. Our study has identified that Public Sector Undertaking Tea Company has no training provisions for their workers.
5. 'Coaching and Mentoring' modes of training is the mostly preferred by workers. This mode of training is offered by almost 42 per cent of the sample tea estates.
6. The study has established that training program offered by Proprietorship Tea Company and Partnership Tea Company has positive effectiveness. The overall performance of worker before training and after training varies largely.
7. Training program offered by the Public Limited Tea Company is not statistically important. The overall performance of worker before and after attaining training remains same.

6.2.3: Wages of the Tea Workers

1. In tea industry of Bengal, wage rate is fixed through the peculiar negotiation process in the presence of three parties i.e. representatives from planters associations, representatives of labours unions and Government officials.
2. The amount of wage fixation for tea worker is done once in a three years interval. The amount of wage fixation for a particular period is seen usually for three folds i.e. once the memorandum for wage rate is settled, the rate is payable in three installments.
3. Our study has found that in between 2001 to 2011, amount of wage growth rate was confined below 10 per cent.
4. Unanticipated changes in wage growth rate has been found in the year 2012 (13.18 per cent) and in the year 2015 (18.4 per cent).
5. Study has unveiled a genuine clue for the drastic changes in wage rate that is political influences. In 2011, there was assembly election in Bengal and political condition was in deep turmoil, so, no change on tea worker wage was made. In 2012, to acquire good faith, the ruling Government of then increased wage rate of 13.18 per cent. Again, before the assembly election of 2016, in 2015, a historic wage growth rate of 18.4 per cent was made.
6. Study has established that the wage growth rate for tea worker in North Bengal is directly linked with the political influence.
7. The study further confirms that the overall trend of wage growth rate follows a typical randomness. This randomness has been justified by the Run test.
8. Wage issue is the prime reason for the sudden strikes, closure, and lockout of tea estates of this region. Due to which the industry has become vulnerable.

6.2.4: Working Condition of the Tea Workers

1. Study identified that actual weekly average working hours and actual weekly average overtime hours are significantly higher than the standard weekly working hours and standard weekly overtime hours for Public Limited Tea Company.
2. Study has identified in case of Public Limited Tea Company, the mean difference between actual and standard weekly working hour is 3.437 hours.
3. The study has recognized that in most of the Public Limited Tea Company, managers and supervisors are not considered intentionally worker extra working hours for the purpose of calculation of overtime wage rate.
4. Study confirmed that for Proprietorship Tea Company, the actual average weekly working hours for workers are significantly higher than of standard weekly working hours.
5. The mean difference of actual and standard weekly working hour for workers in Proprietorship Tea Company is observed 3.230 hours.
6. The study exposed that most of the tea estates under the Proprietorship Tea Company are managed and run by the Marwari people. They presumed that investing in tea plantation is a kind of gambling. So, they don't bother about labour, environment, ecology, market, sustainability, etc.
7. Public Sector Undertakings Tea Company is the only tea company in the North Bengal tea plantation industry calculates and pays worker extra working hours in accordance with the Plantation Labour Act.
8. Partnership Tea Company also violates provisions of the Plantation Labour Act, regarding the calculation of worker extra working hours.

9. As far as overtime hour is concerned, in Public Limited Tea Company and in Proprietorship Tea Company, it observed statistically momentous disparity of weekly actual and weekly standard overtime working hour of workers.
10. The outcome of the statistical analysis for the Public Limited Tea Company on mean difference of weekly actual and weekly standard overtime working hour of worker is noticed 3.562 hours.
11. The mean difference of weekly actual and weekly standard overtime working hour of workers in Proprietorship Tea Company is observed 4.769. The mean difference of the Proprietorship Tea Company is quite higher than that of the Public Limited Tea Company.

6.2.5: Heath, Safety, and Welfare of the Tea Workers

1. Study found that the Public Limited Tea Company occupied the top most position in terms of average heath expenses incurred in the previous four years, followed by the Partnership Tea Company, Public Sector Undertakings Tea Company, and the Proprietorship Tea Company.
2. Study detected that statistically significant disparity of health expenses exists between the Public Limited Tea Company and Proprietorship Tea Company with significant p value of .011.
3. As far as safety of tea workers is concerned, Public Sector Undertakings Tea Company provides better safety measures to its workers in terms of previous four years average safety expenses, followed by the Public Limited Tea Company, Proprietorship Tea Company, and Partnership Tea Company.

4. Study noticed that statistically significant disparity exists based on safety measures between Public Limited Tea Company and Proprietorship Tea Company with the significant p value (.025), Proprietorship Tea Company and Public Sector Undertakings Tea Company with the significant p value (.006), Partnership Tea Company and Public Sector Undertakings Tea Company with the significant p value (.019).
5. Based on the welfare facilities of tea workers, Public Limited Tea Company stands in the apex position followed by Proprietorship Tea Company, Partnership Tea Company, and Public Sector Undertakings Tea Company.
6. The study confirmed based on welfare facilities that statistically momentous difference exists among Public Limited Tea Company and Partnership Tea Company ($p = .004$), Public Limited Tea Company and Public Sector Undertakings Tea Company ($p = .004$), Proprietorship Tea Company and Partnership Tea Company ($p = .046$), Proprietorship Tea Company and Public Sector Undertakings Tea Company ($p = .044$).