CHAPTER I

INTRODUCTION

The Human Resource plays an important role in deciding the destiny of a nation. A country with abundance of physical resources can’t do anything without the help of human resources. In fact, in order to make use of natural and physical resources of a country, committed labour force is very essential. An efficient and committed labour force is the backbone of the economic development of a nation. In short the economic development of a country is the outcome of higher Labour Productivity.

According to Meirer and Baldwin “development does not occur spontaneously as a natural consequence. When economic conditions are right, an agent is needed. This requires people with the drive and vision”. One of the important factors which create drive and vision is the compensation or reward. In the words of S.E. Thomas, "labour consists of all human efforts of body or mind which is undertaken in the expectation of the reward”.

The term reward is not restricted to monetary rewards and incentives, such as wages or salary and bonuses, commission and profit sharing, which relate to extrinsic motivation. It is also concerned with non-monetary rewards, which satisfy the employee’s psychological needs. In fact these monetary and non-monetary rewards and incentives play a very important role in the labour productivity.

Productivity is the ratio between the output and input. Labour Productivity is simply the ratio of the output of goods and services produced to the amount of
labour used (measured by number of workers or worker-hours employed in generating the output). Increase in volume of production does not mean increase in productivity. The increase in production must be accompanied by reduction in the cost of every additional unit. In short the increase in production must be economical. This means securing higher productivity. Thus, productivity means highest possible production with lowest production and social cost.

Kerala is a small state located in the south-west corner of India. It is basically an agrarian state. The industrial sector of Kerala consists of medium and a few large scale industries in the public and private sectors. It is one of the least industrially developed states in India. Labour unrest is one of the important reasons for its dismal performance. For growth of the national economy it is essential that public sector enterprises should be productive. However, the overall performance of the public sector undertakings of the state is very poor.

The Public Sector has come to occupy a significant and a pivotal position in the economy of India. It has grown steadily in size over the years and encompasses a wide spectrum of the industrial economy covering segments such as heavy engineering, petroleum, minerals, chemicals, machine tools, electrical, ferrous and non-ferrous metals, ship buildings, automobiles and consumable. In many areas it occupies a monopolistic position. Starting with a comparatively small investment at the beginning of the first Five Year plan, the investment in the public sector has grown significantly.

However, in Kerala, the overall performance of public sector undertakings is poor. The economic development in different countries like Japan, which is poor in
natural resources, is rich with its human resources. So in order to raise the productivity, it is required to enrich the human resources.

Now a day, various techniques have been employed to increase the productivity of labour force. One of the techniques applied is to provide attractive packages in the form of monetary as well as non-monetary incentives to the labour force. A large number of companies have come out with attractive incentive schemes to its labour force. But unfortunately no clear cut criteria are followed by these companies. Lack of vision in implementing the incentive schemes may adversely affect the labour productivity.

Problem in Brief

In the Indian context, the public sector enterprises on the majority have been performing in a dismal way. One important reason for the dismal performance of the public sector enterprises has been the problem of labour. Labour unrest poses as a big threat to the very existence of public sector enterprises. The containment of labour force has been one of the challenges of public sector management. It has been observed that the labour unions are often agitated for more incentives, at the same time the management has been conceding the demands of labour unions and thereby causes labour unrest. In some other cases, the payment of monetary incentives is not based on labour productivity; it leads to heavy losses to the organization. In most of the public sector undertakings, no clear criterion is followed for the payment of incentives.

In recent days, some managers express the opinion that, especially in the process industries output is given by the machines and it is the modernity of the
machines that govern productivity. But it should be noted that it is the man behind these machines. It is the man who creates and operates the machines. If the man is not efficient it will affect the productivity of the machine also. So the modernity of the machine alone will not increase productivity without the help of efficient and committed labor force. In order to maximize the productivity, both man and machine should work harmoniously and in unison to supplement the efforts of each other.

The increase or decrease in labor productivity is dependent on various factors such as, the reward or compensation, working conditions, decision making opportunity, job satisfaction, feeling of belonging etc. Among these factors the reward or compensation system is very important. Of course, money is important to every one except hermits, if only to ensure survival. In fact, money reward systems are based on the belief that people only work for money and therefore money is the only way to get them to work. The compensation system, policies and review philosophies of any organization can be said to be one of the most vital factors for the motivation, retention and the morale amongst the employees.

Under this compensation system, wage or salary constitutes a major portion. In addition to this the workers may get some incentives. These incentives may be monetary or non-monetary. Cambridge International Dictionary of English defines incentives as "something which encourages a person to do something". It is an extra pay for extra performance in addition to the regular wages or salaries. In fact the incentive scheme is a managerial devise for increasing the labor productivity. So, sufficient care should be taken while framing the incentive schemes.
The socio-economic factors of the workers may affect their productivity. So the management should be aware of the socio-economic back-ground of the workers. Some of the studies conducted in developed countries, it is noted that they are not giving much importance to the monetary rewards. But our case is different. Here, the workers are more concerned with the monetary rewards. In India, especially in Kerala, the monetary and non-monetary incentives play an important role in increasing the labor productivity.

In this context, this study had taken maximum effort to understand the role of incentives in the productivity of labour by taking the case of certain selected Public sector undertakings in Kerala. These undertakings include Kochi Refineries Ltd. (KRL), Hindustan Organic Chemicals Ltd. (HOC), The Fertilizers And Chemicals Travancore Ltd. (FACT), Hindustan Machine Tools Ltd. (HMT), and Travancore-Cochin Chemicals Ltd. (TCCL). The case of these undertakings is particularly interesting on two counts. The first is that some of these undertakings are major profit making companies, some are not making much profit and some are running in a loss and in case of salaries and incentives also there is considerable difference between these organizations.

Second is that the incentives play a big role in the increased performance of labour and consequently on the rising profits. A study unraveling the management of labour through incentives would be of importance to other public sector and private sector industries also. Human nature can be very simple, yet very complex and differ from person to person. An understanding and appreciation of this is a prerequisite to effective employee motivation in the work place and thereby effective
management and leadership and it leads to increased productivity. The study also aims to understand other aspects which affect labor productivity and to frame an ideal reward payment scheme and hence the study is relevant.

**Earlier Studies**

Since 1940s, a number of studies have been conducted to investigate the effect of incentives in labour productivity. In India, National Productivity Council (NPC) conducted several studies on incentives and productivity. But a study on the role of incentives in labour productivity based on the public sector undertakings in Kerala was not done. Some of the studies have made an explicit reference to the role of incentives in labour productivity, but these studies are simply indicative rather than exhaustive. At this juncture a study on role of incentives in labor productivity based on selected public sector undertakings of Kerala will be ameliorating and enriching the public sector undertakings, the workers, the private sector undertakings, the Government and also the general public. It will facilitate the management to utilize the work force efficiently and there by improved productivity.

**Objectives of the Study**

Following are the important objectives of the study.

1. To study the relationship between the socio-economic background of the employees and satisfaction with salary, incentives and working conditions.
2. To trace out the reasons for dissatisfaction with salary, incentives and working conditions.
3. To trace out different incentives and its effect on employees.
4. To throw light on various factors affect labour productivity.

5. To analyse the relationship between the socio-economic background of the employees and their productivity.

6. To highlight the pitfalls in the incentive system in public sector enterprises.

7. To identify the problems and difficulties experienced by the employees of public sector undertakings.

8. To analyse the role of various incentives in promoting more accountability and thereby increased labour productivity.

9. To design an effective incentive scheme for the public sector enterprises.

10. To offer suggestions on the basis of the findings and conclusions of the study, so that deficiencies and shortcomings can be rectified.

Hypothesis

The following hypotheses were developed for the purpose of the study.

H₁: There is no relationship exists between the age of the worker and productivity.

H₂: The sex of the worker does not have any relationship with productivity.

H₃: There is no relationship between religion in which the worker belongs and productivity.

H₄: Marital status of the worker does not affect labour productivity.

H₅: Spouse of the worker employed or not does not affect labor productivity.

H₆: There is no close relationship between nature of work and labor productivity.
H7: Educational qualification of the worker does not make any difference in labor productivity.

H8: Length of service of the worker does not have any relationship with labor productivity.

H9: Employees’ participation in decision-making does not improve labour productivity.

H10: Active participation in labor unions does not affect labor productivity.

H11: Satisfaction with the work environment does not have any relationship with productivity.

H12: Amount of Salary and labour productivity are inversely related.

H13: Money is not a motivator for increased productivity.

H14: Satisfaction with salary, monetary and non-monetary incentives and working conditions, among these variables, incentives do not contribute much to labor productivity.

Variables Studied

The dependent and independent variables of the study are listed below:

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<thead>
<tr>
<th>Dependent Variable (DV)</th>
<th>Independent Variable (IV)</th>
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<tbody>
<tr>
<td>1. Productivity</td>
<td>1. Capital</td>
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<td>2. Technology</td>
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<td>3. People</td>
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<td>2. Labor Productivity</td>
<td>1. Reward or compensation</td>
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<td>a. Salary/wages,</td>
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3. Incentives

b. Monetary as well as Non-monetary incentives

2. Working conditions

3. Freedom of decision making

4. Job satisfaction

5. Feeling of belonging

6. Personnel policies

7. Ability

8. Age

9. Sex

10. Religion

11. Length of service

12. Salary

13. Trade union participation

14. Nature of work

15. Marital status

16. Spouse employment

17. Educational qualifications.

4. Worker’s job behavior

1. Productivity

2. Profitability

4. Number of times late

2. Quality of output
5. Satisfied/dissatisfied with working conditions

1. Age
2. Sex
3. Attitude of the supervisors & Management
4. Safety measures
5. Machinery

6. Machine Productivity

1. Technology
2. Operator

7. Non-technological factors of Productivity improvement

1. Efficient designing of the work process
2. Operational practices
3. Administrative set-up
4. Efficiency of labor.

8. Labor Efficiency

1. Personal Skills and capabilities of the worker
2. Organising skills of the firm
3. Work facilities and work environment
4. Motivational inputs provided to the workers.

5. Inter-personal communication network

6. Job content

9. Satisfied/dissatisfied with salary

1. Age
2. Sex
3. Religion
4. Marital Status
5. Spouse of the worker employed/not
6. Educational qualification
7. Nature of work
8. Length of service

10. Salary differentials

1. Skill
   a. Skilled
   b. Semi-skilled
   c. Unskilled
   d. Complexity of the skill acquired

2. Working conditions

3. Difficulty in getting a substitute

4. Length of service

5. Qualifications.

11. Search for another job

1. Salary
2. Monetary as well as non-monetary incentives
3. Good working conditions
4. Future prospects
5. Good management

12. Satisfied/dissatisfied with incentives
   1. Age
   2. Sex
   3. Religion
   4. Marital Status
   5. Spouse of the worker employed/not employed
   6. Educational qualification
   7. Nature of work
   8. Length of service

**Database and Methodology**

The required data for the conduct of the study was collected from primary and secondary sources. Primary data was collected in two stages, through a field survey in the selected public sector enterprises. While selecting 600 respondents in the first stage and 300 respondents in the second stage, due importance was given to age, sex, marital status, length of service, nature of work, educational qualification etc, of the respondents. A structured questionnaire was prepared for collecting the information.
The secondary data for the study was collected from the published journals and magazines like various issues of Productivity Journal, Economic and Political Weekly, Human Capital, Indian Management, Management Researcher, Personnel Today, Vikalpa and a number of other periodicals, books, published Research works etc. were collected and critically analyzed. Internet services were also used to collect latest information through various websites.

Survey Design

For the purpose of this study, primary data was collected in two stages. At the first stage, 600 respondents were personally interviewed with the help of a structured questionnaire. Of the 600, 150 respondents each from Kochi Refineries Ltd. (KRL), Fertilizers And Chemicals Travancore Ltd. (FACT) and Travancore-Cochin Chemicals Ltd. (TCCL) and 75 respondents each from Hindustan Organic Chemicals (HOC) and Hindustan Machine Tools (HMT) were selected. At the second stage, 150 respondents were interviewed. Of the 150, 50 respondents each from, Kochi Refineries Ltd. (KRL), Fertilizers and Chemicals Travancore Ltd. (FACT) and Travancore-Cochin Chemicals Ltd. (TCCL) were selected. The public sector undertakings taken for this study were chosen on the basis of their relative importance. Due importance was given to the profitability, strength, ownership, working conditions etc of the organization. While selecting the respondents due importance was given to various factors such as age, nature of work, salary, length of service, marital status etc. of the respondents.
Pilot Study

The first step in the process of the data collection was a pilot study. For this, 25 employees each from Kochi Refineries Ltd, Fertilizers and Chemicals Travancore Ltd and Travancore Cochin Chemicals Ltd were selected and a questionnaire was issued to them to fill in duly. An informal talk was also held with these employees. On the basis of the pilot study, necessary modifications were made to the questionnaire and then it was finalized. The pilot study also envisaged an insight to conduct field survey for collecting primary data.

Collection and Analysis of Data

The collected data were edited, coded and then entered in to a master chart by the investigator. MS Excel programme was applied for achieving the same. Each item of the data was strictly checked for its accuracy before being entered into the master chart. Tables were prepared and using these as the guidepost, the data were analyzed with reference to the objectives and hypotheses of the study. Due care was taken to employ the analytical tools depending upon the type of the data. For the purpose of measuring workers’ productivity, an index is prepared by taking mainly 10 variables. These are quality of output, interest in work, absences, obedience, cooperativeness, initiative, sincerity, job knowledge, dependability and decision making capability. All these variables are rated on a three point scale with a weightage of three, two and one for high, average and low levels. Thus the productivity index of a most efficient worker is 30, an average worker’s is 20 and that of a least efficient one is 10. In other words the value of the index ranges between 10 and 30. To test the hypotheses that two attributes are associated or not,
the Chi-square test of independence were used. Pearson’s Co-efficient of Correlation and regression analysis was also used for this study. For easy understanding charts are also used. Statistical Package for Social Science (S.P.S.S.) has been used for the analysis.

**Resume of the Work Done**

Following is the summary of the work done.

a. Analysis of the profile of the respondents.

b. Analysis of employees satisfied/dissatisfied with working conditions on the basis of age and length of service.

c. Company wise analysis of satisfaction/dissatisfaction with working conditions and the reasons for dissatisfaction.

d. Analysis of various methods for improving satisfaction with working conditions.

e. Analysis of employees satisfied/dissatisfied with salary on the basis of age, sex, religion, marital status, spouse employed/not, educational qualifications, nature of work, length of service and salary and the reasons for dissatisfaction.

f. Company wise analysis of satisfaction/dissatisfaction with salary and the reasons for dissatisfaction.

g. Analysis of employees satisfied/dissatisfied with incentives on the basis of age, sex, religion, marital status, spouse employed/not, educational qualifications, nature of work, length of service and salary and the reasons for dissatisfaction.

h. Money: A motivator for productivity.

i. Detailed analysis of the incentive schemes and factors affect labor productivity.
j. Thorough analysis of the relationship between incentives and labor productivity.

k. A comprehensive analysis of the relation between socio-economic background of the workers and their productivity.

Reference Period

The primary data was collected in the year 2001-2002. In case of secondary data, care was taken to cover almost all available data from the very beginning itself.

Concepts and Definitions used in the Study

Acceptable Productivity Level (APL) - Acceptable Productivity Level is that level of output rate or productivity above which the incentive wage payment starts.

Collective bargaining - is a process of joint negotiation between the employer and the employee representative, or trade unions, regarding all aspects of the employment relationship.

Employee Stock Ownership Plan (ESOP) – In this system the company gives its shares to the employees as compensation. It allows the company to provide employee benefits with a lower cash outlay. The employees, as owner of the company, will try to improve productivity at its maximum.

Financial incentives – incentives in terms of money. The financial incentives are of two types-
i. Direct financial incentives – reward the employee or group of employees through increased payment, which is related in a certain way to each man’s contribution to the production effort.

ii. Indirect financial incentives – include pension benefits, subsidized meals, medical and leave facilities. These all are financial incentives, but only indirectly.

**Grade or position based remuneration** – remuneration on the basis of grade or post held by the employee.

**Group Incentive Scheme** - Especially in case of process industries, it may not possible to ascertain individual performances. In such situations, incentives are paid to the group as a whole. The amount is later divided among group members on an equitable basis (e.g. with consideration of the basic wage rate of the worker and the number of hours worked by him) agreed up on earlier.

**Higher production** – increase in the level/quantity of output.

**Higher Productivity** – obtaining as much output as possible from a given number of units of input. In other words higher productivity means increase output consistently with less than proportionate increase in the cost of production.

‘**Hygiene factor**’ - In Herzberg’s two factor model, money is treated as a ‘hygiene factor’ which serves as a potential dissatisfier if not present in appropriate amounts, but not as a potential satisfier or positive motivator.

**Incentives** - Something which encourages a person to do something. It is an extra financial motivation to the worker.

**Incentive based remuneration** – incentives as a base for remuneration system. The trend towards the use of incentive based remuneration was closely associated with
the development, power and influence of personnel departments with in the organizations.

Incentive Expectancy – The difference in wages at Motivated Productivity Level and Acceptable Productivity Level is termed as Incentive Expectancy.

Individual Incentive Schemes - Individual incentive schemes are applicable to specific employee performance. It has two distinct sub-classifications: (a) Payment by Results (PBR) system, and (b) Measured Day Work (or Payment by Time) system.

Induction – introduction to work. In induction the supervisor concerned should emphasis the value of factors governing productivity such as, optimum utilization of physical and mental energy, attention to correct work processes and cost consciousness. The worker should also inform of his conditions of service and amenities and facilities available to him; also covered are incentive schemes and maximum bonuses that can be earned.

Job enrichment – Enriching the job with new and challenging tasks. It is a tool for increasing labor productivity.

Job satisfaction – satisfaction derived from the job. We cannot attain life satisfaction if our work does not give us satisfaction. So, job satisfaction is a major goal for everyone.

Labor - consists of all human efforts of body or mind which is undertaken in the expectation of the reward.
**Labor Productivity** - Labor Productivity is the ratio of output of goods and services produced to the amount of labor used. The labor can be measured either by:-

i. number of workers or

ii. worker-hours employed in generating the output.

a. Another measure which takes into account the contribution of labor per rupee of wages paid, i.e., if a labor is paid one rupee as wages, how much output does it produce.

b. Gross Value Added Approach – It is the ratio of Gross Value Added to the total number of employees. It measures the value addition by employee of a firm.

**Measured Day Work (or Payment by Time) system** - Under this system, an employee opts to maintain an agreed target level of output in order to secure a stable higher wage rate. This system has two levels of wages—an agreed higher level of wages for a specified higher level of consistent performance and the basic wage for lower levels of performance. Basically, this system is a Payment by Time System.

**Motivation** – The process of motivation is initiated by someone recognizing an unsatisfied need. A goal is then established which, it is though, will satisfy the need, and a course of action is determines which is expected to lead towards the attainment of the goal and the satisfaction of the need. The cycle is continuous because as one need is satisfied another will arise.

**Intrinsic Motivation** – derived from the content of the work.
Extrinsic Motivation  - This is what is done to and for people to motivate them. It arises when management provides such awards as increased pay, praise or promotion.

Motivated Productivity Level (MPL)  - Motivated Productivity Level is the level of output that the management desires to raise the current productivity level to the practicable motivated productivity level with the expenditure of a certain amount of additional money.

Need for achievement  - The need for achievement is defined as the need for competitive success measured against a personal standard of excellence.

Non-financial incentives  - Incentives in non-monetary terms such as, provision for good working conditions, encouragement and appreciation of good work, liberal management outlook and general atmosphere of friendship and co-operation in dealing with common problems, etc.

Participative decision-making  - The worker should also get participation in the decision-making. It will improve the morale of the worker and thereby labor productivity.

Participative management  - The workers should be consulted while taking every important decision. While seeking the opinions of the workers, they feel an attachment with the company and will work more efficiently.

Payment by Result (PBR) System  - In Payment by Result system the reward is based on the result (output). So this has a continuous relation between money and result; therefore, different results would get different wages.
Performance Related Remuneration (PRR) – remuneration is based on the performance of the employee. It is an incentive based system of remuneration to employees.

Premium Pay Plan (PPP) – Under this plan, for different specified levels of performance there are corresponding different levels of wage rates starting from basic to higher and higher premium pay rates.

Productivity – Productivity in formal sense stands for the ratio between the output of goods and services and the input that has been employed for the same.

Productivity may be:

a. Partial Productivity (PP)

b. Total Factor Productivity (TFP)

c. Total Productivity (TP)

d. Comprehensive Total Productivity (CTP)

Partial Productivity – is the ratio of output to one class of input.

Total Factor Productivity – is the ratio of net output to the sum of associated labor and capital (factor) inputs.

Total Productivity – is the ratio of total output to the sum of all input factors.

Comprehensive Total Productivity – index is the total productivity index multiplied by the intangible factor index.

The ‘economic man’ approach - This approach is based on the reinforcement theory. According to this view, people are primarily motivated by economic rewards. It assumes that they will be motivated to work if rewards and penalties are tied directly to the results they achieve.
Wages – is the consideration for ‘labor’ put in by a ‘laborer’

Wage incentive scheme – payment for work of an acceptable quality produced over and above a specified quantity or a standard.

Wastage in labor – improper utilization of labor. These wastages result from bad planning of work, unhealthy labor policy, bad and inadequate maintenance of machinery, accidents, strikes, slowdowns, lockouts, etc.

Work – has been defined as activity performed not for the pleasure of acting, but for the sake of a result beyond the action, such that we would be unwilling to act unless we expected the result to follow.

Limitations of the Study

Labour productivity varies from region to region and from people to people. The present study tries to understand the productivity of the labour force in Kerala only. Studying each and every of these industries and regions is not practically feasible considering the constraints of time, manpower required and last but not the least monitoring/infrastructure requirements.

Since it was a qualitative study, quantification of data became a difficult task. It is, but natural that any research investigation suffers from certain limitations especially when the answers are the subjective response of a group of employees of different public sector undertakings.

Majority of the respondents did not have the habit of maintaining proper records of their income, expenditure, savings etc. Hence, the details supplied by them from their memories had to be relied upon for this study.
It is also observed that during the survey some of the sample respondents were reluctant to give correct information. Therefore the analysis may suffer from non-sampling errors.

Despite the limitations, the study will be very useful to the employers and employees of public and private sector undertakings, the Government, the academicians and to the general public.

**Presentation of the Study**

The present thesis is organized in six chapters including the introductory chapter, which describes the objectives, methodology, hypotheses set, the variables studied, the limitations of the study, etc.

The second chapter describes the ‘incentives’ and ‘labor productivity’ a theoretical perspective, its objectives and importance. It also explains the importance of incentives in improving the labor productivity in the Indian scenario.

An account of available literature on incentives and labor productivity is included in the third chapter.

The next two chapters comprise the analysis of primary data, their results and interpretations.

The sixth chapter contains the findings and conclusions of the study and suggestions to improve labor productivity.
Foot Note