INTRODUCTION

Since independence Indian industries have lived under the shelter of protection, leaving little chance for structural adjustments. The result was lack of research and development, low productivity, unplanned growth and lack of competence. The liberalisation packages introduced in 1991 have necessitated embracing a whole new world of technology.¹

Before 1991, the focus of the policy had been to invest in heavy industries to accelerate economic development. Though both the private and public sectors were taken care of the tilt was towards the public sector. And today, many public sector enterprises are sick as they lack a professional approach and are saddled with social responsibilities. Imports were kept at minimal levels with the emphasis on import substitution while exports were over looked. There was not much foreign direct investment. Neither the government nor the private sector tried to strengthen Research and Development activities. The laws relating to the corporate governance were not reviewed or modified to meet the changing requirements. They became obsolete and hampered the growth of economic activity.

The imperatives that expedited the opening up of the Indian economy were the balance of payments crisis of 1991 and the obligations to
World Trade Organisation since 1995. The country's foreign exchange reserves had depleted to a week's import equivalent by 1991. To manage this crisis, many hard decisions were made. The rupee was devalued by almost 35% and was later made convertible on current account. Import controls were eased by lowering tariff rates. The conditions for foreign direct investments were liberalised. Though exports grew by almost 20% annually till 1995, imports too rose sharply. As a result the trade deficit increased from $5.8 million in 1993-94 to $7.6 million in 1995-96. The FDI flow surged from a mere $97 million in 1990-91 to 1929 million in 1995-96.²

Indian industries, both under the public sector and private sector, came under severe threat as a result of liberalisation. Even the public sector units were forced to show efficiency and profitability in their working.

Since it is a signatory to the WTO, India is obliged to meet its requirements. With economic barriers, both tariff and non-tariff, being brought down under the WTO frame work, it has become indispensable to gear up Indian industries for global competitiveness, for which there is a need to rewrite many of the laws, policies and method of implementation. It is essential to restructure and remodel the functioning of institutional mechanisms.

In short, for Indian industry, time has come to prove the very logic of its existence. It has only two options - either to grow or die. In the current
competitive environment, it has to cope with the standards of its major competitors. Even the most leading companies are trying to locate areas where they can co-operate for mutual benefits. Indian industry has to enhance the efficiency of production mechanism, human resources and distribution systems to survive and excel in its performance. This could be achieved through a willful attempt to review the whole system and upgrade the men and machinery to suit the demands of the time.

Productivity and Labour Efficiency

The changing concepts about the management of industrial organisations require a new approach at the concept of productivity. In the past, productivity was defined in terms of rise in output per worker with the same or reduced level of input, through improved methods of work and improved technology. However, it is through the employees that the ultimate increase in production is achieved. The performance and efficiency of employees are more important than equipment and raw materials. Every employee's satisfactory performance is vital to the proper functioning of machinery and equipment in industry. If the employees are not motivated to work harder, better, with sincerity, initiative and co-operation, no amount of sophisticated technology is going to help.

The growing importance for labour efficiency is emphasised in the developed countries like the USA, Russia, Germany & Japan. In Russia
labour productivity is measured on the basis of set standards followed by detailed technical studies. In the United States, employees are free to suggest productivity improvement schemes and are offered incentives like a percentage of the savings resulting from the implementation of the suggestions.

The productivity linked wage payment system is employed in Germany. The industries are prepared to share the gains of higher productivity through national consensus. The Japanese also attribute their success in linking productivity with wages to worker's participation in introducing and monitoring the productivity-linked wage system. In India, incentives by way of cash payments for achieving production levels beyond the base level performance by at least 50%, has not resulted in a reduction of overtime expenses, labour turnover, absenteeism etc.

The case of successful organisations like Bharat Heavy Electricals Ltd., National Fertilisers Ltd., Larson & Tubro and Tata Iron and Steel Company is a different story. Their experience shows that greater emphasis should be laid on improving the quality of employees through upgradation of their conceptual, managerial, behavioural and technical skills. The attitude of the employees in the organisation and the work culture play a dominant role in achieving positive results in terms of labour efficiency.
It is equally important to absorb the changing dimensions of productivity from efficiency to effectiveness, concern for linkages between profitability and productivity on the one hand and between productivity and quality of work life on the other. A motivated involved human resource is a precondition without which the gains of technology cannot be achieved. Hence greater stress should be laid on improving the quality of employees through an upgradation of their conceptual, managerial, behavioural and technical skills.

In the Indian context, the key to people orientation is 'trust'. Some of the successful organisations have won in creating among employees a feeling of commitment and emotional involvement interwoven into a corporate culture by the top management. This will naturally result in high morale and positive work culture of employees. In otherwords, labour efficiency can be improved through effective motivational forces. Then, it becomes essential to identify the factors which may motivate the workers to elicit their best performance and ultimately an over all increase in their efficiency.

Labour Efficiency and Motivation

The term 'motivation' is derived from the Latin word 'emover' which means 'to move'. It is a process of stimulating people to action to accomplish desired goals. The process of motivation, involves needs,
drives and goals. There is 'need' behind most of the actions of a man. Better facilities, more pay, recognition, opportunities for promotion etc. are some of the needs of the people. Drives are called motives and they represent the behaviour in the process of motivation. Every undertaking has certain goals which it wants to achieve, which can be materialised only through the efforts of employees.

Trust, hard work and sincere efforts of employees help an organisation to achieve the goal of high productivity. Job involvement or belongingness induces a person to put in his best in the development of the organisation.

Motivation is an internal feeling - a psychological phenomenon which generates within an individual. Each individual in the organisation is a self contained and inseparable unit and all his needs are interrelated which creates continuity in human behaviour.

Early writers like F.W. Taylor believed in the economic basis of motivation. Workers would be motivated by obtaining the highest possible wages through working in the most efficient and productive way. Performance was limited by psychological fatigue. For Taylor, motivation was a comparatively simple issue - what the workers wanted from their employers more than anything else was high wages. This approach is the "rational-economic concept" of motivation.
The human relations writers, however, demonstrated that people go to work to satisfy a range of different needs, and not simply for monetary rewards. They emphasised the importance of social needs of individuals and gave recognition to the work organisation as a social organisation, as illustrated in the Hawthorn Experiment. The human relations approach to organisation and management led to the 'social concept' of motivation.

The system approach also supports the social concept of motivation. The socio-technical system is concerned with the interaction between both the psychological and social features, and the needs and demands of people; and the structural and technical requirements of the organisation. The Longwell Coalmining study, for example, demonstrated the importance of redesigning work in a manner which provides opportunities for team work and social interaction.

The findings of the Hawthorn experiment, and the subsequent attention to the social organisation and theories of individual motivation, gave rise to the work of "neo-human relation" writers. The writers adopted a more psychological orientation to motivation. Greater attention was focussed on the content and meaning of the task, and attempts to make work more intrinsically satisfying. The major focus of concern was the personal adjustment of the individual within the work situation. This approach is the "self actualisation" concept of motivation.
The "contingency approach" to organisation and management, takes the view that there are a large number of variables, or situational factors which influence organisational performance. Contingency theory is concerned more with difference between organisations than with similarities. Managers must be adaptable, and vary their behaviour according to the peculiar situation and the different needs and motivation of the staff. The varying situational factors together with the complicated nature of human behaviour lead to the "complex-person concept" of motivation.

A major determinant of behaviour is the particular situation in which individual workers find themselves. Motivation varies over time and according to circumstances. Differences in patterns of motivation are illustrated by 'Hunt', who had developed average 'goal profiles' showing the relative importance of different categories of needs for people in different occupations and changes in profiles at different stages for an average manager.\(^5\)

The complex nature of motivation is supported by the work of Vroom. Citing more than 500 research investigations, he concludes that there is no all-embracing theory of motivation to work.\(^6\)

Thus, it can be concluded that efficiency and motivation are positively related. The present study focuses on the effects of motivating
factors on the efficiency of employees, in the selected public and private sector units in Kerala.

**Scope of the study**

India, a country with immense natural resources and abundant manpower, is still a developing country only when compared to the USA, Japan and Germany. Technological developments, political stability with visionary leaders, sincere and committed labour force etc. are the backbone of the progress of any nation. What Japan did in fifty years, India could not imagine in hundred years.

Lack of commitment to work and low productivity adversely affect the growth of our nation. Idle and under utilised capacity, outdated technology and negative work culture resulted in low productivity and the poor performance of Indian industry. The situation in Kerala is more or less similar to that of the national scene. The performance of the public sector undertakings in Kerala is far from satisfaction. Only very limited units are enjoying profits. With a high literacy rate, the productivity of our employees is low compared to that of the neighbouring states like Tamil Nadu, Karnataka and Andhra Pradesh.

Hence it is thought worth while to conduct a comparative analysis of the efficiency level of the employees in the selected public sector and private sector units and the impact of motivating factors on their efficiency.
Statement of the Problem

Globalisation and the economic renaissance have compelled the trade and industry to excel in work on par with its counterparts of Multi National Corporations. The sophisticated technology of the west require high degree of specialised skills. The Indian technology is to be adjusted to the prevailing socio-cultural framework of the country.

Technology can be adapted and updated. Infrastructural facilities also could be developed. Unless for the effective and efficient utilisation of labour force, these are meaningless. Hence an indepth analysis of the various factors leading to improved efficiency is to be done. In this study an attempt is made to compare the efficiency level of employees both in the selected public sector and private sector units.

Naturally, such an analysis demands more conscious and serious study of the various variables relating to the work life of the employees such as their antecedents, working environment, labour relation, welfare activities provided by the employer, degree of satisfaction with the remuneration and other incentives, scope for personal development, job security, extent of involvement in the firm etc.
Objectives

With this background the following specific objectives have been set for the study:

1. To measure and compare the level of efficiency of workers in the selected public and private sector units in Kerala.

2. To analyse the relationship between the level of efficiency and antecedents of the workers.

3. To study if any significant differences exist in the workers satisfaction in work life in the units under study.

4. To analyse the factors motivating the workers for better performance and compare the companywise variation.

5. To examine the relationship between motivational factors and antecedents of the workers.

6. To study the empirical relationship between workers level of satisfaction and expectation of motivating factors.

7. To identify the most important variables influencing the level of satisfaction.

8. To suggest remedial measures, where necessary, for the improvement of the workers' efficiency.
Hypothesis

1. The average efficiency level of workers in Kerala is medium.

2. There is no significant difference in the level of efficiency of the workers in the public and private sector units in Kerala.

3. There is no significant relationship between the level of efficiency of workers and their antecedents.

4. There is no significant difference in the workers' level of satisfaction with regard to work life in different companies.

5. There is no significant difference in the magnitude of factors motivating the workers for better performance with reference to different companies.

6. There is no significant difference in the relationship between factors motivating the workers and their antecedents.

7. Immediate financial improvement is the most important variable influencing the level of satisfaction.

8. There is no significant difference in the level of satisfaction and expectation of motivating factors of workers between the different companies.
Methodology

The present study has been designed as a descriptive one based on both secondary and primary data.

Source of Secondary Data

The secondary data necessary for the study has been collected from the following sources:

1. Annual Reports and published accounts of the units under study: The Malabar Cements Limited, The Commonwealth Tiles Ltd. and Grasim Industries Ltd.
2. The Memorandum of Settlement signed by the management and trade union leaders of the units.
3. 'Statistics for Planning' published by the Government of Kerala.
4. 'Survey of Indian Industry 1999' published by The Hindu.
5. Published statements of the Manufactures Associations of Cement, Tiles and Pulp.
6. Record of 'Labour Welfare measures of the three units
7. Various academic studies conducted in the field in different parts of India and abroad.
8. Newspapers and periodicals dealing with the subject.
Primary Data

Since most of the information necessary to fulfill the objectives of the study are not available from the secondary source, the researcher mainly based his study on relevant primary data collected from the selected sample units.

Selection of Sample Units

There are about 55 medium and large scale industrial units in modern manufacturing sector in the state, of which 25 belong to the public sector and 30 belong to the private sector. Out of the 25 units in the public sector, only 12 units were running consistently at profit during the last five years. From these twelve units, one unit is selected at random by using lottery method. The Malabar Cements Ltd., Walayar (MCL), was selected from this category to represent the public sector units.

Out of the thirty units in the private sector, only twenty two were earning profit. From among these 22 units, 2 units were selected at random by drawing lots to represent the private sector.

They are:

1. The Commonwealth Tiles Limited, Feroke (CTL) and
2. Grasim Industries Limited, Mavoor (GIL)
Selection of Workers

There are 720 workers (excluding mine workers and headload workers) in Malabar Cements Ltd., 505 workers in the Commonwealth Tiles Ltd. and 640 workers in the Pulp Division of Grasim Industries Ltd. (excluding workers in Turbine, Electrical, Boiler Maintenance, Bamboo Yard and Pulp Shed).

Of these workers, a minimum of 10% have been selected at random by drawing lots from each unit. Thus there are seventy two workers from the Malabar Cements Ltd., fifty six workers from the Commonwealth Tiles Ltd. and sixty four workers from Grasim Industries Ltd., altogether constituting 192 workers, as sample for the survey.

Method of Data Collection

To collect the required information from the respondents, undisguised personal interview method was followed. The researcher himself administered a structured interview schedule comprising four parts - regarding labour efficiency, job satisfaction, motivating factors and antecedents of workers.

Measurement of Labour Efficiency

There is no single criterion to measure labour efficiency in all situations. Both objective and subjective methods are suggested by
industrial psychologists and practicing managers for measuring labour efficiency. Among the several methods a multidimensional measure based on objective and subjective criterion is more appropriate than a unidimensional measure based on dividing the total output by number of workers. Though this method is highly objective in nature it fails to measure the variation in the performance level of a more efficient worker and a less efficient worker, as both these workers get the same mean production. Hence in this study, subjective method is employed by the researcher to measure the efficiency of employees.

**Computation of Labour Efficiency Index**

The performance appraisal is done in two stages: a supervisory evaluation by the immediate supervisor and a self evaluation by the worker himself. For this purpose, twelve variables have been identified in a five point scale, and the supervisor is asked to rate the efficiency of the worker on these variables. Thus the maximum obtainable score under supervisory evaluation is 60 for the most efficient worker and 12 for the least efficient worker. Stated differently, the efficiency score ranges from 60 to 12. In the self appraisal form these twelve variables are repeated in an elaborate way i.e. by asking three questions each for these twelve variables in a five point scale and the scoring is done by averaging the scores for each variable. In this case also the average efficiency score ranges from 60 to 12 for each
worker. As a next step, workers' efficiency index is worked out by averaging the scores obtained for these twelve variables under supervisory evaluation and self evaluation put together. Here also the index varies from 60 to 12 points.

Index of satisfaction with work life

Similarly, to measure the level of satisfaction, seventeen variables were identified and assessed under self evaluation method. These variables include opinion relating to the work, pay and other financial benefits, promotion and training opportunities, job security, management and supervision, colleagues and co-workers, involvement in decision making etc.

These variables have been rated in a five point scale. The maximum obtainable score for a most satisfied worker will be 85 and a least satisfied worker will be 17. In other words the satisfaction score ranges from 85 to 17.

Identification of Motivating Factors

For the purpose of identifying the motivating factors, the constant sum scaling technique is used. A list of seven possible motivating factors have been identified from the available literature and each worker was asked to distribute a maximum of 100 points to these factors according to the preference given by each informant for each factor. Mean and standard
deviation values for each factor has been worked out and these values have been used for the analysis.

Variables used for the study

The following table shows the list of variables analysed for different purposes.

Table 1.1
List of Variables analysed

<table>
<thead>
<tr>
<th>Purpose</th>
<th>No. of variables</th>
<th>Name of Variables</th>
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<tbody>
<tr>
<td>Measurement of labour efficiency</td>
<td>12</td>
<td>1. Job knowledge</td>
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<td></td>
<td></td>
<td>2. Quality of work</td>
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<td></td>
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<td>3. Quantity of work</td>
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<td>4. Cost/Time control</td>
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<td>5. Responsiveness to change or innovation</td>
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<td>6. Commitment to the job and the organisation</td>
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<td>7. Initiative</td>
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<td></td>
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<td>8. Care of machines, tools, equipment and records</td>
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<td></td>
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<td>9. Ability to work in cooperation with others</td>
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<td></td>
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<td>10. Absenteeism</td>
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<td></td>
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<td>11. Punctuality</td>
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<tr>
<td></td>
<td></td>
<td>12. Potential for handling high level responsibility</td>
</tr>
</tbody>
</table>
| Measurement of satisfaction with work life | 17 | 1. Job satisfaction  
2. Expectation of supervisor  
3. Relation with supervisor  
4. Work environment  
5. Remuneration  
6. Comparative ranking of income  
7. Prospects to increase income  
8. Running of canteen, housing, pension schemes etc.  
9. Health, Maternity benefits and accident prevention  
10. Involvement in decisions  
11. Personal development - Training, Promotion etc.  
12. Leave rules  
13. Mode of settling disputes  
14. Mode of communication  
15. Style of management  
16. Interpersonal relationship  
17. Management's concern for workers |
| Identification of Motivating factors | 7 | 1. Immediate increase in income  
2. Increase in income in near future  
3. Promotion  
4. Participation  
5. Facilities at work site |
| Profile of workers | 11 | 1. Age  
2. Caste  
3. Educational Qualification  
4. Length of service  
5. Nature of job  
6. Monthly income  
7. Place of domicile  
8. Marital status  
9. Occupation of parent  
10. Interest in politics  
11. Involvement in Trade Union |

**Tools used for Data Analysis**

The collected data has been analysed by using both mathematical and statistical techniques, the details are given below:

1. Measurement of efficiency of labour: To measure the efficiency of labour, arithmatic mean and standard deviation have been used.

2. To examine the variability of mean efficiency level over different companies, age, caste, length of service and educational qualification of workers etc., analysis of variance technique is used and 'F' ratio is worked out.
3. To analyse the variability in the level of satisfaction of the workers with work life over different companies and the personal factors (antecedents), Variance Analysis is used.

4. For measuring the relationship between workers' satisfaction and expectation of motivational factors between different companies, regression analysis is done.

5. To establish the relationship between workers' satisfaction and expectation in aggregate, factor analysis is carried out.

6. To measure the variability of factors motivating the workers for better performance, between private and public companies, student 't' test is used.

7. To measure the variability in the factors motivating the workers in aggregate, MANOVA test is conducted and Wilk's Lamda values are worked out.

**Limitations of the study**

The study is purely a descriptive one. The whole analysis is done from a workers' perspective. Both the management and trade union perspective analysis is not done. Also peer evaluation has not been carried out. Moreover, the data collection was done mostly during the working hours of the units by meeting the workers individually. Hence the chance
of occurring minute mistakes due to lack of time may also affect the findings of the study. Since most of the data collected for the study are subjective in nature, the limitations of the subjective method like being biased, prejudiced, etc., may also affect the findings of the study. However, sufficient care has been taken to eliminate these chances for bias by averaging efficiency scores of supervisory evaluation and self evaluation.

Further, a baseline comparison of the efficiency level of workers with that of the industry has not been done as no standard figures were available for the whole industry.

Chapter Scheme

The whole study is structured in six chapters.

Chapter One, the introductory chapter, highlights the importance of motivational factors and labour efficiency. It also outlines the scope, objectives, hypothesis, sampling design, procedure of data collection, tools of data analysis and limitations of the study.

Chapter Two, contains a brief review of literature related to the topic under study.

Chapter Three, provides the theoretical background of some of the important theories of motivation - both Content Theories and Process Theories.
Chapter Four, deals with a brief account of the profile of the sample units.

Chapter Five, illustrates the analysis and interpretation of the data.

Chapter Six, the last chapter, summarises the whole study, lists the findings and offers a few suggestions.
References


2. Ibid.


