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10:1 INTRODUCTION

In this chapter, an attempt is being mobilised to present the summary, conclusions and the suggestions.

10:2 SUMMARY

The new Industrial Policy Resolution proclaimed by the Government of India on 24th July, 1991, is considered as the harbinger of a new industrial revolution. It has placed the Indian industries in a radically altered environment. The new environment demands high degree of competitiveness on the part of industries, efficiency of operations, minimisation of wastes, reduction in costs, enhancement in productivity and improvements in quality. The scope for inefficiency has been ruled out. The industries are put to a vigorous test of efficiency and competence. The policy decisions such as the autonomy given to the entrepreneurs to negotiate technology transfer with their foreign counterparts in accordance with their best commercial judgement, automatic approval of direct foreign investment up to 51 percent of share capital, etc., have exposed the Indian industries to a high degree of competition from abroad.

These challenges and problems, if taken in their proper spirit, are no less than the opportunities. It is oft-quoted that opportunities
multiply when they are seized; they die when neglected. With a view to transforming these challenges into result-rewarding opportunities, the new industrial environment demands high degree of competence and professionalism on the part of management and a strong sense of dedication and the spirit of commitment on the part of labour.

Labour, as considered by several economists, is kingpin in the process of production. A properly-motivated labour can flash wonders in the realm of production. But unfortunately, his creative and productive efficiencies, in an industrial premise, are impeded by several handicaps and disincentives. These handicaps and disincentives are the income insecurities, occupational and natural insecurities. These insecurities create a blockade in transforming his “ability to work” into “will to work”.

The Government being in knowledge of these insecurities has come forward as a legislator, an administrator and promoter of social security and labour welfare measures. It has engineered certain social security measures to relieve the industrial worker from physical and mental distress as also enable him to put his best. These provisions include; - Workmen’s Compensation, Health Insurance, Provident Fund, Gratuity, etc. These social security measures are supplemented by certain labour welfare measures. They include, canteen facility, payment of productivity-linked and attendance-linked incentives,
payment of bonus, conveyance and housing facilities, financial assistance to the children of the employees seeking education, recreational facilities, etc. with a view to helping the cause of the labour the Government, the employers, trade unions and voluntary organisations are participating meaningfully to create just and humane working conditions for labour.

A close study of the functioning of social security-cum-labour welfare measures in India could bring to the forefront that:

1. under workmen's compensation, there is no provision for the rehabilitation of the workman to restore the loss in his working capacity;

2. the workers in small establishments do not get various benefits under Employees' State Insurance Scheme;

3. there is no provision for unemployment benefit or unemployment insurance;

4. the implementation of social security scheme suffers from inadequate financial support;

5. allocation of funds for welfare work is negligible; and
6. A vast majority of industrialists still regard welfare work as a barren liability rather than a wise expenditure.

These shortcomings clearly explain that there is absence of comprehensive social security programme. A vast majority of the industrialists have to develop positive and constructive outlook towards the need and significance of labour welfare activities.

The new industrial environment demands the utilisation of available human resource wisely and productively. Productive employment of labour necessitates the creation of just and humane working conditions. It is oft-quoted that labour is the author of all greatness and wealth. There is a wealth of research literature which points out that in organisations where employers have created safe and healthy working conditions and launched welfare-motivated programmes they have succeeded in realising the organisational goals.

The studies organised by Rajesham (1989), Suryanarayan, and Kondayya Rao (1982), Manik Kher (1984), Satyanarayan, J (1969) National Productivity Council, National Commission on Labour (1969) have revealed that the payment of statutory and non-statutory benefits have enhanced both production and productivity.
The research studies organised by Steinmetz, Schoderdeck (1967), Johnson and Peterson (1975), Indana and Khisty (1974), etc., have confirmed the hypotheses that absentee levels vary with working conditions. Provision of monetary and non-monetary benefits (i.e., fringe benefits) reduce absenteeism.

The Relay Assembly Test Room Experiment organised by Elton Mayo (1945) and others, the Ahmedabad experiment carried out by Rice, A.K. (1950), have established the credibility of payment of high wages, bonus, etc., as the tools shaping the attitudes of workers.

The review of previous research literature has revealed that the scholars have made efforts in examining the impact of either social security or labour welfare measures (or in some cases both) exclusively (independent variable/variables) on one of the dependent variables such as production, productivity, absenteeism or attitudes of the workers.

An attempt was made, therefore, to examine the impact of social security and labour welfare measures (independent variables) on production, productivity, absenteeism and attitudes of the workers. The Regional Workshops of Hubli and Bangalore - the automobile centres owned and managed by the Karnataka State Road Transport Corporation were chosen as the field of study.
OBJECTIVES OF THE STUDY

The study subscribed to following objectives:

1. studying various social security-cum-labour welfare measures made available to the workers in the Regional Workshops of Hubli and Bangalore;

2. examining the impact of social security-cum-labour welfare measures on production, productivity, absenteeism and attitudes of the workers;

3. exploring and presenting a comparative picture of the impact of social security-cum-labour welfare measures on production, productivity, absenteeism and attitudes of the workers in the Regional Workshops; and

4. suggesting the remedial measures to remedy the problems.

All these objectives were accomplished.
The following hypotheses were proposed and tested.

1. Adequate provision of social security and labour welfare measures result into an increase in production.

2. Well-knit and scientifically evolved social security and labour welfare measures stimulate labour productivity.

3. Well-devised and comprehensive social security measures help in reducing the rate of accidents, the mandays lost as also the rate of absenteeism.

4. Provision of labour welfare measures reduces the rate of absenteeism.

5. Increased perception of social security and labour welfare measures develops and enhances positive attitudes of the workers towards organization, work, management, supervisors and the fellow-workers.
10:5 METHODOLOGY

The explorative study on hand was designed under the framework of primary and secondary data. The primary data were collected administering an exhaustive questionnaire assimilating both qualitative and quantitative data. The questionnaire was administered on 440 sample respondents from both the organisations. The selection of the sample respondents was done subscribing to Random Sampling Method particularly the Stratified Random Sampling technique. Adequate care was taken to pick up the respondents from different Shops/Sections, trade, categories as also from different shade of educational background, experience, etc.

The primary data thus assimilated were examined employing statistical techniques to explore the attitudinal perceptions of the workers in respect of social security and labour welfare measures towards organization, work, management, supervisors and the fellow-workers.

Having consulted various issues of the Annual Administration Reports, official records, the published brouchers, the secondary data were collected for sixteen years from 1980-81 to 1995-96. The compiled secondary data were examined through various statistical techniques to explore the impact of social security-cum-labour welfare
measures on production, productivity absenteeism, and attitudes of the workers in both the Workshops. In addition to this, the published and unpublished literature was consulted.

All these efforts were supplemented by on-the-spot observation, discussions with the Managerial, Supervisory and Administrative staff. In addition to this counselling and suggestions were sought from the academicians and the scholars.

Started as the servicing and battery charging stations during fifties, the Regional Workshops have emerged as the major automobile centres catering to the bus body building and vehicle reconditioning needs of the Karnataka State Road Transport Corporation. They have come up as an integral part of the organization.

10:6 PRODUCTIVE ACTIVITIES

The Regional Workshops have been undertaking following productive activities:

1. Construction of bus bodies on new chassis.

2. The conduct of major repairs and reconditioning of vehicles.
3. The reconditioning of major assemblies such as engines, fuel injection pumps, etc.

4. The Regional Workshops, Hubli, has sought specialisation in the reconditioning of vehicles and key assemblies of Tata Mercedes Benz vehicles.

5. The Regional Workshops, Bangalore, on the other hand, has sought specialisation in the reconditioning of the Ashok Leyland vehicles. However, it attends to the repair works of Tata-make vehicles as well.

6. With a view to reaping the benefit of division of labour, the Management has developed different Shops/Sections carrying specialised jobs. These Shops/Sections are not set apart but closely inter-linked.

Since mid-1987 the outlook of the Management, in respect of productive process, has changed radically. It has effected certain important changes.

1. The Tyre Retreading/Resoling Shop which was under the control of the Regional Workshops, Hubli, was handed over to the Divisional Workshops.
2. With a view to growing self-sufficient in respect of bus body building activity on new chassis, the three-tier system was replaced by two-tier set up.

3. Under the newly introduced two-tier set up, the construction of bus bodies on new chassis is the key productive activity of the Regional Workshops followed by reconditioning of vehicles and major assemblies.

The supply of spares and materials to both the Workshops is done through the Central Stores, Bangalore, which is around 425 kms away from the Regional Workshops, Hubli.

These automobile centres are basically labour-intensive units. The Corporation authorities have enrolled as many as if not more than over eight hundred employees in each Workshops attending to different productive activities such as bus body building, trimming and resoling of tyres, painting the bus bodies, overhauling of engines, etc. Since the productive activities of such nature are not free from the risk of occupational diseases, therefore, the Management has launched several social security and labour welfare measures.

The first and foremost objective of the study was to know various social security and labour welfare measures made available to the
workers in both the organisations. Having consulted the Annual Administration Reports, Official Records as also administering the questionnaire feeding with primary data of qualitative nature, it was learnt that:

1. the Management has extended various social security and welfare measures to the employees in both the Workshops;

2. the social security measures incorporate, the medical aid, Workmen’s Compensation, Death-cum-Retirement Benefit, the Employees’ State Insurance, Provident Fund, Gratuity, Safety equipment, First Aid, exhaust fans, etc.;

3. the labour welfare activities include; - Paid Holidays, Payment of Bonus, Leave Salary, Festival Advance, Provident Fund Advance, Productivity-linked Incentives, Attendance-linked Incentives (Repast Allowance), canteen, sports, cultural and recreational activities, Workers’ Education Programme, financial assistance to the dependants of the employees for seeking technical and medical education, Technical Training Institutes for the dependants of the employees, cash prizes and citations for meritorious performance as also for forwarding constructive suggestions, call bus facility, free pass for tours and excursion, housing, uniforms, co-operatives such Co-
operative Credit Societies, Consumers and Housing Societies etc.;

4. the Management has set up the Rehabilitation Centre for helping the cause of unemployed dependants of the deceased employees;

5. there exist Production-cum-Grievance Committees; and

6. the workers are given the provision for organising trade union activities. There exists the problem of multiplicity of union.

Conclusively, the workers in both the organisations conduct the productive activities which are not free from certain risks and occupational insecurities. The Management, being in knowledge of these facts, has launched several social security and labour welfare measures.

In the wake of these facts, the present study was designed to examine the impact of social security-cum-labour welfare measures on production, productivity, absenteeism and attitudes of the workers. To study this, legitimate data were collected from 1980-81 to 1995-96 and examined under various statistical tools and techniques.
10:7 MAIN FINDINGS

1. There is a perceptible increase in social security expenditures, in aggregate (absolute) and real terms, in both the organisations.

2. The per worker expenditures on social security measures have increased enormously in both the organisations.

3. There is a perceptible increase in labour welfare expenditures, in aggregate (absolute) and real terms, in both the organisations.

4. The per worker expenditures on labour welfare measures have increased appreciably in both the organisations.

The findings regarding the productive activities of the Workshops and their output performance are as under:

1. Since the introduction of two-tier system of functioning in 1987, the activity of bus body building on new chassis has sprung up as a whole-time activity. Under three-tier system, the bus body building was a subsidiary activity in both the Workshops.
2. There is significant increase in the value of output of the Workshops, both in aggregate and real terms.

3. Both the organisations have achieved an appreciable increase in labour productivity in aggregate (absolute) as well as real terms.

The findings regarding the impact of social security measures on production are as under:

1. There exist positive and significant Co-efficient of Correlation between expenditures on social security measures and the value of output in both the organisations. The degree of correlation is significantly high. These results imply that the increase in social security expenditures have led to an increase in output.

2. There exist positive and significant Co-efficients of Correlation between per worker expenditures on social security measures and the value of output per worker in both the organisations. The Co-efficients of Correlation (r's) between these parameters are significantly high.

3. There exist positive and significant Co-efficients of Correlation between per worker expenditures on Medical Aid, Provident
Fund, Gratuity, D.C.R.B. and the value of output per worker. All these variables are significantly correlated. It implies that the expenditures incurred on each of the social security components have resulted into an increase in per worker output.

4. There exist positive regression co-efficients between per worker expenditures on Medical Aid, Provident Fund, Gratuity D.C.R.B. and the value of output per worker in both the organisations except Medical Aid in R.W. Hubli. However, its value of regression co-efficient is not significant.

These results indicate that the expenditures incurred on each of these components of social security have effected an increase in output in both the organisations except Medical Aid in R.W. Hubli.

5. The expenditures on Provident Fund in R. W. Hubli and Medical Aid in R.W. Bangalore have a significant impact on output in respective Workshops since the value of regression co-efficients are not only positive but also significant.
6. These results have confirmed the hypothesis that adequate provision of social security measures result into an increase in production.

The findings regarding the impact of labour welfare measures on production are as under:

1. There exist positive and significant Co-efficients of Correlation between expenditures on labour welfare measures and the value of output in both the organisations. The Co-efficients of Correlation (r's) are significantly high implying that an increase in labour welfare expenditures have resulted into an increase in output.

2. There exist positive and significant Co-efficients of Correlation between per worker expenditures on labour welfare measures and the value of output per worker. The obtained "r's" are highly significant.

3. There exist positive and significant Co-efficients of Correlation between per worker expenditures on Bonus, Provident Fund Advance, Festival Advance and the value of output per worker except Bonus in R.W. Bangalore. However, its Co-efficient of Correlation is positive. These results imply
that an increase in the expenditures on these components have resulted into an increase in the value of output.

4. Of these labour welfare components, it is the Provident Fund Advance and the Festival Advance seem to have significantly associated with the output since the Co-efficients of Correlation of these components are highly significant.

5. There exist positive regression co-efficients between per worker expenditures on Bonus, Provident Fund Advance, Festival Advance and the value of output per worker in both the organisations.

These results indicate that the expenditures incurred on each of these components have effected an increase in output in both the organisations.

6. Of these labour welfare components, it is the Provident Fund Advance seem to have comparatively significant impact on output in both the organisations, since the value of regression co-efficients are highly significant.
7. These results have confirmed the hypothesis that adequate provision of labour welfare measures result into an increase in production.

The findings regarding labour productivity are as under:

1. There is an appreciable increase in the labour productivity of both the organisations over a period of sixteen years except during 1986-87 in respect of R.W. Hubli and during 1987-88 and 1994-95 in respect of both the organisations. The decline in productivity was due to reasons beyond the control of labour.

2. The results obtained through analysis of data have confirmed the hypothesis that a well-knit and scientifically evolved social security and labour welfare measures stimulate labour productivity.

3. There is an appreciable increase in labour productivity in real terms, in both the organisations over a period of fifteen years except during 1986-87 and 1990-91 in respect of R.W. Hubli and 1992-93 in case of R.W. Bangalore.
4. It is on triple occasions, namely; - 1984-85, 1987-88 and 1994-95, both the organisations experienced a decline in labour productivity in real terms.

In the study of the problem of absenteeism of both the organisations, reliance was placed on the secondary data corresponding to the year 1980-81 to 1995-96. With a view to examining the impact of social security and labour welfare measures on absenteeism and its related aspects, the legitimate data were explicated under the framework of Correlation and Regression Analysis.

The relevant findings regarding the impact of social security measures on the number of accidents and the mandays lost in both the organisations are as under:

1. Provision of social security measures have resulted into a perceptible decline in the rate of accidents in both the organisations. The reported accidents in both the premises are of minor nature.

2. There exist negative and significant Co-efficients of Correlation between the expenditures on social security measures and the rate of accident in both the organisations. The correlation (r's) are highly significant.
3. There is a perceptible decline in the mandays lost in both the Workshops except during 1995-96 in R.W. Hubli and 1993-94 in R.W. Bangalore.

4. There exist negative and significant Co-efficients of Correlation between the expenditures on social security measures and the mandays lost in both the organisations. The correlation (r's) are highly significant.

5. These results imply that the provision of social security measures such as fencing of machines, provision of safety devices, etc., and increasing expenditures on these provisions have effected a perceptible decline in the occurrence of accidents and subsequently the mandays lost.

6. These results have confirmed the hypotheses that well-devised and comprehensive social security measures help in reducing the rate of accidents as also the mandays lost.

The findings regarding the impact of social security measures on absenteeism are as under:

1. There exist negative significant Co-efficients of Correlation between expenditures on social security measures and the
absenteeism rate in both the organisations. The correlation (r's) are highly significant.

These results imply that provision of social security measures and increasing expenditures thereon have reduced absenteeism rate in both the Workshops.

2. There exist negative and significant Co-efficients of Correlation between per worker expenditures on social security measures and the rate of absenteeism in both the Workshops.

3. There exist negative and significant Co-efficients of Correlation between per worker expenditures made on each component of social security and the rate of absenteeism in both the organisations.

The results confirming significant Co-efficients of Correlation (r’s) imply that the expenditures incurred on each component of social security have reduced absenteeism rate in both the units.

4. There exist negative regression co-efficients between per worker expenditures on Gratuity, D.C.R.B. and the rate of absenteeism in both the organisations.
Similar result has been obtained between per worker expenditures on Provident Fund and the rate of absenteeism in respect of R.W. Hubli.

5. These results indicate that the expenditures incurred on these components have effected a decline in the rate of absenteeism.

6. The values of regression co-efficients in respect of Medical Aid in both the organisations and Provident Fund in R.W. Bangalore are positive but not significant perhaps due to interaction effects of independent variables.

7. These results have confirmed the hypothesis that well-devised and comprehensive social security measures help in reducing the rate of absenteeism.

The findings regarding the impact of labour welfare measures on absenteeism rate are as under:

1. There exist negative and significant Co-efficients of Correlation between expenditures on labour welfare measures and the rate of absenteeism. The correlation (r's) are highly significant in both the organisations.
The results confirming significant correlation imply that provision of labour welfare measures have reduced absenteeism rate.

2. There exist negative and significant Co-efficients of Correlation between per worker expenditures on labour welfare measures and the rate of absenteeism.

3. There exist negative and significant Co-efficients of Correlation between per worker expenditures on Bonus, Provident Fund Advance, Festival Advance and the rate of absenteeism in both the organisations.

The magnitude of association seems to be more between component Bonus and absenteeism rate in R.W. Hubli and Festival Advance and absenteeism rate in R.W. Bangalore.

These results imply that the expenditures incurred on labour welfare components have effected reduction in absenteeism rate in both the organisations.

4. There exist negative regression co-efficients between per worker expenditures on Bonus, Provident Fund Advance.
These results imply that provision of labour welfare measures and expenditures incurred on various welfare components in both the organisations except Festival Advance in R.W. Hubli have effected a decline in absenteeism rate.

5. Amongst these components of labour welfare it is Provident Fund Advance which is relatively more influencing component on absenteeism in both the organisations since their regression co-efficients are comparatively high.

6. These results have confirmed the hypothesis that provision of labour welfare measures reduces the rate of absenteeism.

In an industrial premise, extension of financial and non-financial incentives act as the attitude-changers. They infuse positive outlook amongst workers towards organization, management, etc. With a view to studying the attitudinal perceptions of the workers as a result of extension of fringe benefits, an exhaustive questionnaire was administered in both the organisations. The primary data, both qualitative and quantitative in nature, was examined under the framework of Chi-square Test ($\chi^2$) to identify the workers perceptions towards organization, work, management, supervisors and the fellow-workers.
The findings regarding the effects of social security measures on the attitudes of the workers are as under:

1. There is a significant association between social security measures and their perception by the workers in both the organisations. The level of significance is very high.

2. There exists significant association between social security measures and labour welfare measures in both the Workshops. The level of significance is very high.

   The obtained results indicate that adequate provision of social security measures leads to greater labour welfare.

3. There is significant association between social security measures and the Organisational Identification. The association is significantly high.

   The obtained results have confirmed that the workers in both the organisations have greater organisational identification which in turn are significantly associated with the provisions of social security. They identify that the workers are loyal and emotionally committed to the organization.
These results have confirmed the hypothesis that the provision of social security measures will enhance the workers' organisational identification.

4. The Chi-square Test ($\chi^2$) results which are significantly high in both the organisations indicate that the workers identify the work strongly.

The obtained results substantiate the hypothesis and establish a close nexus between provision of social security measures and work identification.

5. The obtained results indicating significantly high association between social security provisions and Management Identification in both the organisations indicate that the workers have greater orientation towards management.

These results have substantiated the hypothesis that a well-conceived social security programme enhances workers' orientation towards management.

6. The Chi-square test ($\chi^2$) results reflecting significant association between social security provisions and Supervisors'
Identification indicate that the workers in both the organisations have greater orientation towards their supervisors.

7. The obtained results indicate that there exist significant association between the provisions of social security measures and the Fellow-workers Identification.

These results substantiate the hypothesis and suggest that the workers in both the organisations have greater fellow-workers identification. They, in turn, are significantly associated with the amenities created in the realm of social security.

The findings regarding the effects of labour welfare measures on the attitudes of the workers are as under:

1. The cross tabulation of data pertaining to labour welfare measures and the perception of these measures by the workers has revealed that the correlation between these two parameters is highly significant in both the organisations.

The obtained results indicate that the perceptions of the workers in both the organisations about labour welfare measures is commensurate with the provisions made.
2. The Chi-square test ($\chi^2$) results indicate that there exist highly significant association between the provisions of labour welfare and the Organisational Identification.

The results confirm that the workers in both the organisations have greater organisational identification which in turn are significantly associated with the amenities created in the realm of labour welfare.

3. There exist highly significant association between the provisions of labour welfare and Work Identification in both the organisations.

The Chi-square Test ($\chi^2$) results confirm that the workers feel themselves in complete harmony with their work. They have greater orientation towards work. The results indicate significant association with the provisions of labour welfare in both the units.

4. The Chi-square Test ($\chi^2$) results reflect highly significant association between the provisions of labour welfare and Management Identification.
These results confirm that the workers in both the organisations have greater orientation and affiliation towards management. These results are significantly associated with the provisions of labour welfare.

5. The Chi-square ($\chi^2$) Test results reveal significant association between labour welfare measures and the Supervisors Identification.

These results confirm that the workers in both the organisations have greater supervisors identification which in turn are significantly associated with the provisions of labour welfare.

6. The results obtained through Chi-square test ($\chi^2$) have confirmed significant association between labour welfare measures and Fellow-workers Identification.

These results suggest that the workers in both the organisations have greater fellow-workers identification which in turn are significantly associated with the provisions of labour welfare.

The results of the attitudinal study have confirmed the hypothesis that increased perception of social security and labour welfare measures develops and enhances positive attitudes of the
workers towards organization, work, management, supervisors and the fellow-workers.

The study on hand is a comparative study examining the differences between the two organisations in respect of the effects of social security and labour welfare measures on production, productivity, absenteeism and attitudes of the workers. The findings of the study have been presented analytically as under:

The relevant findings regarding the expenditures on social security measures are as under:

1. The expenditures on social security measures are comparatively more in R.W. Hubli than in R.W. Bangalore both in aggregate (absolute) and real terms.

2. In terms of annual compound growth rate, these expenditures are comparatively high in R.W. Hubli than in R.W. Bangalore.

3. Per worker expenditures on social security measures are comparatively more in R.W. Hubli than in R.W. Bangalore.

4. Viewed from the angle of annual compound growth rate, per worker expenditures on Medical Aid, Gratuity and D.C.R.B are
comparatively higher in R.W. Bangalore than its counterpart in Hubli. As against this, the annual compound growth rate of per worker expenditures on Provident Fund in respect of R.W. Hubli is comparatively high than R.W. Bangalore.

5. Viewed from the angle of Co-efficient of Variation, in respect of social security expenditures, the R.W. Bangalore is more consistent than R.W. Hubli.

The findings regarding the expenditures on labour welfare measures are as under:

1. The expenditures on labour welfare measures are comparatively more in R.W. Bangalore than in R.W. Hubli, both in aggregate (absolute) and real terms.

2. In terms of annual compound growth rate, the expenditures on labour welfare measures are comparatively high in R.W. Bangalore than in R.W. Hubli.

3. Per worker expenditures on labour welfare measures are high in R.W. Bangalore than in R.W. Hubli during the period under review.
4. Calculated in terms of annual compound growth rate, per worker expenditures on labour welfare components, namely Bonus, Festival Advance and Provident Fund Advance, during the period under review, are comparatively more in R.W Bangalore than R.W. Hubli.

5. Viewed from the angle of Co-efficient of Variation, the R.W Bangalore is more consistent in respect of expenditures on labour welfare measures than R.W. Hubli.

Over a period of sixteen years from 1980-81 both the organisations could realise a phenomenal increase in the value of output. A comparative study of their output performance brings-forth following differences:

1. The annual compound growth rate of the value of output is comparatively high in R.W. Bangalore than in R.W. Hubli.

2. The examination of data pertaining to the value of output (aggregate), under the framework of Co-efficient of Variation has shown that R.W. Hubli is more consistent than its counterpart in Bangalore.
3. The per worker productivity index, during the period under review, is high in R.W. Bangalore than in R.W. Hubli.

4. The mean productivity per worker is also high in R.W. Bangalore than R.W. Hubli.

5. In real terms, the value of output per worker (labour productivity) of R.W. Bangalore is quite impressive than R.W. Hubli.

6. The computation of data pertaining to the labour productivity under the framework of Co-efficient of Variation has shown that R.W. Hubli is more consistent than R.W. Bangalore.

A comparative study of the effects of social security measures on output of both the organisations has led to following findings:

1. The Co-efficient of Correlation (r) between expenditures on social security measures (aggregate) and the value of output (aggregate) is comparatively higher in respect of R.W. Bangalore than R.W. Hubli.

2. As against this, the Co-efficient of Correlation (r) between per worker expenditures on social security measures and the value
of output per worker is comparatively higher in respect of R.W. Hubli than the R.W. Bangalore.

3. Although the Co-efficient of Correlation (r's) between per worker expenditures on Provident Fund and output (per worker) as also per worker expenditures on Gratuity and output (per worker) in both the organisations are positive and significant, but,

(a) Provident Fund in R.W. Hubli while Gratuity in R.W. Bangalore are closely correlated with output. In other words, it is the expenditures on Provident Fund in R.W. Hubli while the expenditures on Gratuity in R.W. Bangalore which are comparatively more effective in increasing output in respective Workshops;

(b) however, on the basis of Fisher's Z Transformation it was found that there is no significant difference between Co-efficients of Correlation of R.W. Hubli and R.W. Bangalore in respect of fore-detailed variables.

4. The application of Regression Analysis has shown that:

(a) there exists negative regression co-efficient between per worker expenditures on Medical Aid and the value of
output per worker in case of R.W. Hubli. On the contrary, the regression co-efficient in respect of R.W. Bangalore is not merely positive but also significant.

In other words, the expenditures on Medical Aid in R.W. Bangalore has a significant impact on output;

(b) there exist positive regression co-efficients between per worker expenditures on Provident Fund and the value of output in both the organisations. However, the value of regression co-efficient in respect of R.W. Hubli is not merely positive but also significant. In other words, the expenditures on Provident Fund have resulted into comparatively more influence on output in Hubli Workshops than in its counterpart in Bangalore.

A comparative study of the effects of labour welfare measures on output of both the organisations has led to following findings:

1. The Co-efficient of Correlation (r) between expenditures on labour welfare measures (aggregate) and the value of output (aggregate) is comparatively higher in respect of R.W. Bangalore than R.W. Hubli.
2. Similarly, the Co-efficient of Correlation (r) between per worker expenditures on labour welfare measures and the value of output per worker in respect of R.W. Bangalore is comparatively higher than in case of R.W. Hubli.

3. On the basis of Co-efficients of Correlation (r’s), it is evident that these expenditures are closely correlated with output in respect of R.W. Bangalore than in case of R.W. Hubli.

4. Although on the basis of Fisher’s Z Transformation, it was found that there is no significant difference between the Co-efficients of Correlation of both the organisations in respect of:

   a. per worker expenditures on Provident Fund Advance and labour productivity;

   b. per worker expenditures on Festival Advance and labour productivity; and

   c. per worker expenditures on Bonus and labour productivity;

   however, on the basis of Co-efficients of Correlation (r’s) it seems that:
(1) expenditures on Provident Fund Advance and Festival Advance are strongly correlated with labour productivity in respect of R.W. Bangalore than in R.W. Hubli; while

(2) per worker expenditures on Bonus seem to have comparatively higher correlation with labour productivity in R.W. Hubli than in R.W. Bangalore.

5. The obtained value of regression co-efficient in respect of per worker Provident Fund Advance and output per worker is comparatively higher in R.W. Hubli than in R.W. Bangalore. In other words, the Provident Fund Advance in R.W. Hubli has relatively more influence on labour productivity than in R.W. Bangalore.

A comparative study of the problem of absenteeism has brought forward following findings:

1. The magnitude of the problem of absenteeism is comparatively higher in R.W. Bangalore than in R.W. Hubli.

2. The annual compound decline rate in R.W. Bangalore is comparatively higher than in its counterpart in Hubli.
3. The mean absenteeism rate in respect of R.W. Bangalore is comparatively higher than in R.W. Hubli. However, the application of "t" test has shown that this difference is insignificant.

4. The application of Co-efficient of Variation has shown that R.W. Hubli is more consistent than R.W. Bangalore in reducing absenteeism rate.

The findings regarding the effects of social security measures on the rate of absenteeism are as under:

1. The Co-efficient of correlation (r) between expenditures on social security measures (aggregate) and the rate of absenteeism is comparatively higher in respect of R.W. Bangalore than R.W. Hubli.

2. The Co-efficient of Correlation (r) between per worker expenditures on social security measures and the rate of absenteeism is comparatively higher in respect of R.W. Bangalore than R.W. Hubli.

3. It is evident from the Co-efficient of Correlation (r's) that the magnitude of relationship between these expenditures and the
rate of absenteeism is comparatively high in R.W. Bangalore than in R.W. Hubli.

4. The application of Fisher's Z Transformation Test has confirmed that there is no significant difference between the Co-efficients of Correlation (r's) of R.W. Bangalore and R.W. Hubli in respect of absenteeism rate and the per worker expenditures on Provident Fund, Gratuity and D.C.R.B. However, on the basis of Correlation (r's) it seems that these expenditures are strongly correlated with absenteeism rate in R.W. Bangalore than in R.W. Hubli.

5. There exists negative regression co-efficient between per worker expenditures on Provident Fund and the rate of absenteeism in respect of R.W. Hubli while the value of regression efficient in case of R.W. Bangalore is positive. It implies that these expenditures have exerted profused impact on reducing absenteeism in Hubli Workshops.

The comparative study of the social security measures and the mandays lost has revealed that:
1. the Co-efficient of Correlation (r) between expenditures on social security measures and the mandays lost is comparatively high in respect of R.W. Hubli than R.W. Bangalore;

2. it implies that these expenditures are comparatively more effective in reducing mandays lost in case of R.W. Hubli than in R.W. Bangalore.

In the realm of the effects of labour welfare measures on absenteeism, the relevant findings are as under:

1. The Co-efficient of Correlation (r) between expenditures on labour welfare measures (aggregate) and the rate of absenteeism is comparatively higher in R.W. Bangalore than R.W. Hubli.

2. The Co-efficient of Correlation (r) between per worker expenditures on labour welfare measures and the rate of absenteeism is comparatively higher in R.W. Bangalore than R.W. Hubli.

3. On the basis of correlation (r's), it is confirmed that the magnitude of correlation between these two variables is more in R.W. Bangalore than R.W. Hubli.
4. The obtained "r" values have confirmed that it is per worker expenditures on Bonus in R.W. Hubli while per worker Festival Advance in R.W. Bangalore which have exerted comparatively more influence on reducing absenteeism in respective Workshops.

5. The value of regression co-efficient in respect of per worker Festival Advance and the absenteeism rate in R.W. Bangalore is negative while in case of R.W. Hubli, it is positive. It implies that the Festival Advance has exerted considerable impact on absenteeism rate in R.W. Bangalore.

With a view to drawing the comparison between the two organisations on the attitudinal measures towards Organisational Identification, Work Identification, Management Identification, Supervisors Identification and the Fellow-workers Identification, the students' "t" test has been worked out. The obtained results suggest that the two organisations do not differ in the attitudinal components of the workers perhaps due to the creation of similar physical and psychological conditions.
10:8 SUGGESTIONS

The Karnataka State Road Transport Corporation - the awardee of the BEST PRODUCTIVITY AWARD in 1991, is sincerely committed to the objective of stimulating the efficiency of its workers. 'Prosperity' has been its long-cherished goal. Realisation of such an objective necessitates that the Management should tackle all such problems which interrupt its smooth functioning.

Following are some of the suggestions which are expected to make its functioning more effective. These suggestions have been presented analytically as follows:

PRODUCTION AND PRODUCTIVITY

1. The Karnataka State Road Transport Corporation - the awardee of the "BEST PRODUCTIVITY AWARD" is the 'SECOND BIGGEST' and the 'FOURTH LARGEST' passenger road transport organization of India. It is indeed surprising to note that it has not taken the initiative in developing Research and Development wing in either of the Workshops.
It is suggested that the Management takes initiative in setting up "RESEARCH AND DEVELOPMENT" wings in both the organisations.

2. It has been learnt from the sample respondents of the New Bus Body Building Workshops of R.W. Hubli, that there exists the problem of inadequate supply of spares and raw-materials causing the problem of high over-head cost, more number of idle man-hours, high average cost and comparatively low output. Since the raw-materials and spares are supplied from the Central Stores, Bangalore, it causes delay and consequently impairs labour productivity.

It is, therefore, suggested that the Management gives a serious thinking over this problem and helps building an adequate stock of spares and raw-materials in Hubli Stores.

3. Under two-tier system of functioning, the Regional Workshops have been shouldered with the responsibility of reconditioning major accident vehicles. But the Management has not taken the initiative in developing the "VEHICLE INSPECTION CELL" inspecting the vehicles when brought for reconditioning.
In view of this, it is suggested for setting up the "VEHICL.
INSPECTION CELL" comprising the skilled personnel drawn
from different sections such as Bus Body Building, Chassis,
Engine, etc. It's job would be to inspect the vehicle and
evaluate the work involved, the man-hours required and the
approximate cost to complete the work.

4. It was as early as 1967, the Staff Standardisation Committee
was set up to fix up Standard Man-hours for different trades
such as New Bus Body Building, reconditioning of F.I Ps.,
Engines, etc. Since then a long period has elapsed. Several
changes have sprung up in the realm of techniques, technology,
the skills as also the experience of the workers.

In the wake of such changes, it is suggested to set up the
STAFF STANDARDISATION COMMITTEE afresh fixing up
"STANDARD MAN-HOURS" for different trades rationally
The need for setting up the committee of experts is also felt
necessary in the wake of the introduction of two-tier system in
1987-88 as also the Productivity-linked Incentives.

A step in this direction would help in fixing the monthly
production targets rationally.
The problem facing the R.W. Hubli is the problem of high over-head cost and high average cost of production compared to its counterpart in Bangalore. There is a pressing need for reducing these costs. Following suggestions may help the organization to check these problems:

i. Adequate and prompt supply of spares, accessories, tools and raw-materials.

ii. Placement of the workers in accordance with their trade, skill and expertise.

iii. Frequent inter-sectional transfer of workers may be refrained.

iv. Idle man-hours should be recorded. An exercise of such nature would help the Management to know the causes and thereby take up corrective steps.

v. Specialised training facilities build up the skill and expertise of the workers. Since the introduction of two-tier system, new bus body building has stemmed up as a whole-time activity. It is, therefore, the workers of New Bus Body Building may be deputed for specialised
training. The course content should cover, in addition to other aspects, time and motion studies, cost-saving devices, etc.

vi. There should be proper planning of man-hour utilisation of different category of workers. At one stage, it was found that the man-hour utilisation of Artisans stood at 625 man-hours, Assistant Artisan, 732, Helper 'A' 574 and Helper 'B' 567 man-hours. When the highly-paid workers are used more, automatically the cost escalates.

vii. 'Economy of cost' should not merely be the concern of Management but also it should be the "Mission" of every employee. It should be accepted as a "MOVEMENT" where every member of the organization participates actively and meaningfully. The trade unions can play a decisive role in making such 'movement' a success.

viii. The usage of spurious quality raw-materials and spares not merely impairs the longevity of the life of the vehicles but also results into high maintenance cost. It is, therefore, the Management may take special care on genuine quality of spares and materials.
INCENTIVES

1. 'Productivity-linked incentives' are the best premium stimulating the workers' 'will to work'. The Management has introduced the productivity-linked incentives since later half of mid 80's. But the aspects such as adequate work load to the workers, timely supply of spares and raw-materials seems to have escaped the sight of Management.

It is, therefore, suggested that the Management pays due attention to provision of adequate work load to the workers as also provides necessary raw-materials. Otherwise the purpose of introducing such incentives would go waste.

2. Most of the sample respondents in both the organisations expressed their option for 'over-time work facility' in lieu of 'productivity-linked incentives'. It is learnt that till 1985 such facility was made available to the workers.

In the wake of such option, it is suggested that the Management may review the feasibility of 'over-time work facility' under the framework of cost-benefit analysis.
3. The system of equal distribution of productivity-linked incentive has created a dis-incentive on the part of the employees of such Shops/Sections who produce beyond the target.

With a view to sharpening their competitiveness, it is suggested that the payment of incentives should be target-bound.

**ABSENTEEISM**

1. In a metro city such as Bangalore the cost of living is very high. It is, therefore, the employees hunt for avenues fetching them supplementary income. Once such sources are grabbed, the workers start absenting themselves from regular working premise.

With a view to checking this problem, it is suggested to introduce over-time work facility. Introduction of over-time work facility would help the employees to earn extra income and refrain them from searching supplementary income fetching sources outside.

2. The workers engaged in the Paint Shop, Smithy Shop, Welding Section and Tyre Retreading Section are exposed to health
spirit to refrain from unhealthy practices. There should be constant follow-up.

2. The trade union may play a vital role in helping the cause of chronic absentees in gaining freedom from the problem of indebtedness. The union may set up EMPLOYEES' WELFARE FUND. It should be a contributory scheme. One of the objectives of the Fund should be to lend interest-free loan to deserving employees.

3. The organisations may set up an ATTENDANCE REVIEW COMMITTEE comprising the representatives of both labour and the management. Its job would be to review the employees' attendance periodically and identify the hard cases, if there be, and refer them to the COUNSELLING CELL.

4. The employees giving exemplary attendance should be rewarded. Such employees may be given public exposure by publishing their photographs in the organisational journals. It is one way of creating attendance-oriented culture.
Canteen

The administration of canteen has come under severe criticism from the workers of both the organisations. The areas which need attention of the Management include, the quality and variety of eatables served, canteen service during night shifts, etc. Following suggestions have been made to improve the canteen services.

1. Canteen, in an industrial premise, is like a hygienic laboratory. It is, therefore, the Management may take special interest in providing better quality eatables. The quality and variety of eatables that workers relish, have important bearing on their health, their attendance and the zeal to work.

2. The Worker-Directors for the Canteen Committee in R W. Hubli are chosen through election process. Elections normally lead to group rivalries which are undesirable in industrial premises.

To put an end to the problem of fractionalism and group rivalries, it is suggested that the election process is substituted by the 'NOMINATION SYSTEM'. The Management in consultation with the Union leaders and senior workers may
frame suitable norms and guidelines for the nomination process of Canteen Worker-Directors.

3. Six Worker-Directors elected to constitute the Canteen Committee are the whole-time members looking after the canteen work. These Worker-Directors are not available for regular work for a period of three years. Calculated in terms of man-hours, the Workshops is losing over 14,000 man-hours in their non-availability for regular work.

In view of this problem, it is suggested that the Management takes over the administration of canteen. To protect the interest of the workers, it may constitute the CANTEEN ADVISORY COMMITTEE comprising the representatives of the workers and the Management.

WORK ENVIRONMENT

1. In R.W. Bangalore, it was observed that the drinking water tap is laid adjacent the latrine pipe. It is laid in the vicinity of toilet chamber. As per the Factory provisions, the water centres should be located at least six metres away from toilets and wash-rooms.
It is, therefore, suggested that the Management takes immediate steps in shifting the drinking water taps to a hygienic location.

2. The Regional Workshops, Bangalore, located below the city surface level, encounters the problem of water logging during rainy season. The dirt of the neighbouring areas gets deposited in the premises. The conveyance becomes problematic. It shoots the danger of spreading diseases as well.

In view of such locational problem, it is suggested that suitable drainage facility is developed.

3. The labour productivity depends on *inter alia* the space provided to conduct the productive activity. The Machine shop, the Engine and Electrical Shops in R.W. Hubli are closely knit together. The workers do not get adequate space to conduct their activities comfortably.

It is, therefore, suggested that the Management develops a spacious accommodation while planning for extension layout.
MEDICAL AID

The sample respondents in both the organisations have expressed their dissatisfaction regarding the reimbursement of medical bill, non-availability of in-patient facility, etc. Following suggestions have been made to overcome these lapses.

1. It is suggested that the Management drafts adequate staff to extend in-patient facility to the workers.

2. The reimbursement of medical claims and the compensation claims may be attended to on priority basis.

PROVIDENT FUND AND FESTIVAL ADVANCE

1. For accounting purpose, the P.F. Advance and the Festival Advance are treated as the labour welfare expenditures. In fact, these advances are recovered and appear on the asset side of the balance sheet. It is, therefore, the exercise of treating these advances as expenditures should be done away.
WORKERS' EDUCATION

1. There are lot many workers who have not undergone the workers' education programme in both the units. There is a need for motivating such workers for enrolment and achieve cent per cent coverage.

2. One way of motivating such workers is to include their one hour of training period under routine eight hours working timings.

3. Yet another way of motivation is to treat the workers' education programme as a qualifying mark for effecting employees promotions.

TRADE UNIONS

1. There exists the problem of multiplicity of unions breeding inter-union rivalries as also impairing the unity and strength of workers. It would be advisable if the enlightened workers and the union leaders mobilise efforts in merging all unions into a singular union.
2. The unions in both the organisations have enormous scope for undertaking certain constructive programmes. These are as under:

i. Institution of "EMPLOYEES' WELFARE FUND" It should be a contributory scheme. The resources pooled under Fund may be used to assist the employees financially during the times of crisis.

ii. In R.W. Hubli, the unions may institute a Co-operative Consumers' Society providing consumers goods at fair price.

iii. Similarly, these unions may renew the Nehru Co-operative Housing Society, Hubli.

ATTITUDES

1. It has been learnt from the sample respondents that the employees' promotions have not been effected timely and periodically. In certain cases, workers have been retained in the same position over twenty to twenty-five years.
It is, therefore, suggested that the Management effects promotions in respect of deserving workers. Timely and periodic promotions not merely keep the workers happy and contented but also make them to develop orientation towards work and grow loyal towards organization and the Management.