



EMPLOYEE WELFARE MEASURES, JOB SATISFACTION AND ORGANIZATIONAL PERFORMANCE: AN EMPIRICAL STUDY OF THE TELANGANA STATE ROAD TRANSPORT CORPORATION

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Abstract : Employee welfare is widely regarded as a determinant of job satisfaction and, through it, of organizational performance, yet very few empirical studies have examined this relationship in the context of India's public-sector road transport undertakings. This paper presents the design and conceptual framework of an empirical study of the Telangana State Road Transport Corporation (TSRTC), a large state-owned public transport organization that operates through bus depots across Telangana. The study distinguishes between statutory welfare measures (canteens, drinking water, rest rooms, first-aid, sanitation) and non-statutory welfare measures (medical insurance, recreational facilities, housing, transport to and from work, employee assistance programmes) and proposes to examine their combined and individual influence on employees' job satisfaction, and the consequent effect on indicators of organizational performance such as work commitment, motivation, absenteeism and labour turnover. A quantitative, cross-sectional research design is outlined, using a structured questionnaire administered to employees across TSRTC depots, stratified by depot, cadre and length of service, with the responses to be analysed using descriptive statistics, correlation, multiple regression and ANOVA. Drawing on the wider literature on labour welfare in Indian public-sector and transport-sector organizations, the paper develops a set of testable hypotheses and an analytical model linking welfare provision to job satisfaction and performance outcomes. The paper concludes with the anticipated contribution of the study to TSRTC's human resource policy and to the broader literature on employee welfare in public transport undertakings, and sets out the survey instrument, sampling plan and statistical procedures to be used once field data collection is complete.

IndexTerms - Employee Welfare, Job Satisfaction, Organizational Performance, Public Sector Transport, Labour Welfare Measures

I. INTRODUCTION

Human resources are widely recognized as the most valuable and irreplaceable asset of any organization, and the success of an organization depends substantially on how efficiently and humanely it manages its workforce. This is especially true of labour-intensive, service-delivery organizations such as public road transport corporations, where the quality of service experienced by the public rests directly on the physical wellbeing, morale and motivation of drivers, conductors, mechanics and administrative staff. Welfare activities and facilities play a crucial role in promoting better working conditions and improved living standards for workers, which in turn is associated with higher productivity and service quality.

Welfare programmes bring together a range of facilities and amenities in and around the workplace intended to improve the quality of work life of employees. Typical labour welfare facilities include canteens, rest rooms, recreational and sanitary facilities, medical care, and transport arrangements for employees who commute long distances or are posted away from their homes. Beyond their immediate practical benefit, welfare measures are widely believed to enhance the image of the organization in the eyes of its own employees and to strengthen their sense of belonging.

Welfare schemes for employees are conventionally classified into two broad categories: statutory and non-statutory welfare schemes. Statutory welfare schemes are those that an organization is legally obliged to provide in compliance with laws governing occupational health and safety; these typically include canteen facilities, drinking water, adequate lighting, seating arrangements, changing rooms, first-aid appliances, latrines and urinals, washing facilities, spittoons and rest rooms. Non-statutory welfare schemes, by contrast, are discretionary and vary considerably from one organization to another; they may include personal health care, flexible working time, employee assistance programmes, harassment and grievance-redressal policies, employee-referral schemes, and medical-insurance cover. The welfare measures an employer chooses to provide, whether statutory or voluntary, are widely held to affect the overall efficiency of employees and thereby to contribute to higher organizational productivity.

Empirical evidence increasingly supports this view. A survey of 200 employees across industries found that comprehensive welfare programmes — particularly healthcare benefits, flexible working hours and professional development — were associated with significant improvements in both productivity and job satisfaction, and that employees who felt supported by such programmes showed higher engagement and commitment [26]. In the manufacturing sector, welfare facilities such as health insurance, housing, hygienic facilities, transport, rest and lunch rooms and recreation were strongly and positively correlated with employee performance ($r = .843$), organisational commitment ($r = .872$) and job satisfaction ($r = .891$) [27]. At the firm level, a large-sample study found that employee-friendly practices are positively associated with firm value, operating through higher productivity, greater innovation investment and a lower cost of finance [19].

1.1 The Telangana State Road Transport Corporation Context

The Telangana State Road Transport Corporation (TSRTC) is the primary public road transport undertaking of the state of Telangana, operating a large fleet through bus depots spread across the state and employing a large workforce of drivers, conductors, mechanical and administrative staff. As a public-sector undertaking, TSRTC is expected to implement welfare programmes that improve the productivity and wellbeing of its employees while operating within the fiscal and regulatory constraints typical of state transport corporations in India.

Neighbouring state transport undertakings offer useful points of comparison. The Karnataka State Road Transport Corporation operates an extensive set of welfare schemes — including a workplace de-addiction programme, preventive-medicine and cardiac check-up programmes, regular health camps, an employees' family welfare scheme, extended maternity leave, child-care allowance, a transparent seniority-based duty rota and an online leave management system — alongside a gradual rise in labour productivity [24]. In the Tamil Nadu State Transport Corporation, employees who benefit from better welfare schemes report higher job satisfaction, which in turn raises productivity [25]. Whether TSRTC's welfare provision produces similar outcomes has not yet been examined systematically.

Welfare activities in Indian organizations, public and private alike, promote economic development by raising efficiency and productivity, on the underlying premise that employees who are looked after will, in turn, give their best to the organization. In the Indian context, employee welfare has come to imply the provision of medical and educational services and a congenial work atmosphere, among other things; the case for such provision arises from the social responsibility of the state and of organizations, a democratic concern for the dignity of labour, and a recognition that welfare has increasingly come to be viewed not merely as employer benevolence but as a social right of the worker.

State road transport corporation employees are generally better remunerated than casual or unorganized-sector labour, but their working conditions — long and irregular duty hours, exposure to traffic and weather, physically demanding tasks, and postings away from home — mean that statutory minimum welfare provisions alone are often insufficient, and that a wider range of welfare measures is necessary to sustain morale, health and productivity.

These welfare obligations sit within a difficult financial and institutional environment. Recent evidence on Indian State Road Transport Undertakings (SRTUs) shows that both financial and physical performance have declined significantly, with only a few undertakings operating profitably; social obligations, political influence, regulated fares, poor management and inadequate fleet and staff utilisation have been identified as major contributors to persistent losses [14]. The experience of Mumbai's BEST Undertaking further shows how market-oriented reforms — the dismantling of cross-subsidisation, wet-leasing of buses and labour deregulation — introduced without transitional safeguards can fragment governance, weaken financial sustainability and erode service equity in a legacy public

transport utility [15]. The health of the workforce is a parallel concern: among BEST bus employees, 52.95% were found to consume smokeless tobacco, with drivers and conductors at higher risk, underscoring the need for targeted health and welfare interventions in Indian public transport undertakings [17]. Against this backdrop, understanding which welfare measures actually improve employee satisfaction and performance is of direct practical importance to TSRTC.

1.2 Research Objectives

The objectives of this study are to:

- Present an overview of the welfare programmes implemented by TSRTC for its employees.
- Examine the socio-economic and educational background of TSRTC employees.
- Assess the level of awareness and satisfaction among TSRTC employees regarding the welfare measures implemented by the corporation.
- Examine the impact of statutory, non-statutory and social-security welfare measures on the job satisfaction of TSRTC employees.
- Analyse the impact of existing welfare programmes on work commitment, work motivation, absenteeism and labour turnover among TSRTC employees.

1.3 Key Contributions

- Development of an integrated empirical model linking statutory and non-statutory welfare measures, job satisfaction and organizational-performance outcomes in a public-sector transport setting.
- A depot-stratified, empirically grounded assessment of welfare provision in TSRTC, an organization for which no comprehensive prior study of this kind exists.
- A methodological contribution through the combined use of descriptive statistics, correlation analysis, multiple regression and ANOVA to test the proposed relationships.
- Practical recommendations for TSRTC management and for state policy on employee-oriented welfare provision in public transport undertakings.

II. RESEARCH GAP

The Indian Road transport sector has expanded considerably in recent years, and a body of research has examined labour welfare in a range of industrial and service-sector organizations, including the newspaper industry, the jute industry, coal mining (Singareni Collieries), the Indian Railways, cooperative dairies, and chemical and pharmaceutical manufacturing. Within the transport sector specifically, related work exists on the Karnataka State Road Transport Corporation (KSRTC), where health, medical and housing facilities have been linked to job satisfaction among labour-grade staff, and on the Tamil Nadu State Transport Corporation, where employee job satisfaction has been studied as a determinant of organizational wellbeing. A conference paper on welfare measures and job satisfaction in the road transport sector, presented at an INDAM/IIM Rohtak conference, has likewise pointed to this relationship, though such comparative, statistically grounded studies remain scarce.

Despite this body of work, no comprehensive study has yet examined the welfare programmes implemented for employees across TSRTC's bus depots throughout Telangana, nor systematically linked welfare provision to measurable organizational-performance outcomes such as work commitment, absenteeism and labour turnover within this specific organization. This study is intended to bridge that gap by empirically documenting and analysing the welfare measures implemented by TSRTC and their relationship to employee job satisfaction and organizational performance.

Recent international and Indian studies of transport workers have also shifted attention from the mere availability of welfare facilities towards occupational stress and multidimensional well-being. In the Kerala State Road Transport Corporation, workload, time pressure, work control, decision authority and job performance significantly predicted occupational stress, with coping remaining largely informal in the absence of organisational intervention [16], while among Italian public transport employees organisational sources of pressure predicted mental health, physical health and job satisfaction [18]. None of these studies, however, connects the provision of statutory and non-statutory welfare measures to job satisfaction and organizational-performance outcomes within a single Indian state transport corporation — the gap the present study addresses.

III. Literature Review

Labour welfare has long occupied a central place in Indian human resource management scholarship, reflecting the constitutional commitment to securing humane conditions of work for all classes of workers. Welfare has been described as encompassing all measures for the intellectual, physical, moral and economic betterment of workers, whether provided by employers, government or other agencies, over and above what is required by law or ordinarily expected of the employment relationship. Because such provisions extend beyond bare statutory compliance, welfare has increasingly come to be understood as reflecting an underlying attitude of management rather than a fixed set of facilities.

A recurring theme in this literature is the classification of welfare measures into statutory and non-statutory (or intramural and extramural) categories, and the documentation of the specific statutory provisions and agencies responsible for protecting employee welfare in India. Empirical work in this tradition has generally found that adequate provision of canteens, medical care, housing and recreational facilities is associated with reduced absenteeism and improved morale, and that labour welfare is best understood as an extension of democratic values into the industrial and organizational sphere.

Within the road transport sector specifically, a study of the Karnataka State Road Transport Corporation examined the adequacy of health, medical and housing facilities for labour-grade employees and their effect on job satisfaction, concluding that welfare provision plays a pivotal role in workforce efficiency and commitment in large state-owned transport undertakings. Complementary work on Tamil Nadu's state transport corporation has similarly treated employee job satisfaction as central to the wellbeing of transport-sector workers and, through them, to the economic functioning of the corporation. A conference paper specifically titled on the impact of welfare measures on job satisfaction of road transport sector employees, presented at a national management research forum, likewise supports the proposition that welfare provision and job satisfaction are closely linked in this sector, reinforcing the relevance of the present study's setting.

Studies of other state transport undertakings add further detail. An analysis of the Karnataka State Road Transport Corporation, based on its annual administrative reports, documented health, family-welfare, gender-related and administrative welfare measures and reported that traffic revenue per employee per day rose from Rs. 1,991 in 2016–17 to Rs. 2,266 in 2019–20, concluding that effective welfare measures help the corporation motivate employees and raise their productivity [24]. A structural equation modelling study of 252 employees across depots of the Tamil Nadu State Transport Corporation (Kumbakonam region) found that welfare schemes significantly influenced job satisfaction and that job satisfaction contributed to productivity, whereas permanent-job and promotion opportunities did not significantly affect satisfaction [25]. Notably, more than half of that sample were contract workers and most worked nine to ten hours a day, conditions that resemble those of operating staff at TSRTC and that justify examining employment type and duty hours as control variables in the present study.

More recent transport-sector evidence reinforces the case for looking beyond facilities alone. A study of Kerala State Road Transport Corporation employees found that decision authority, workload, time pressure and job performance significantly predicted occupational stress, with decision authority emerging as the strongest predictor, and that employees relied mainly on informal and insufficient coping mechanisms [16]. Among Italian public transport employees, measured with the Occupational Stress Indicator, interpersonal stressors predicted both job satisfaction and mental health, job-intrinsic stressors predicted physical health, and organisational structure predicted job satisfaction, with Type A behaviour and coping strategies moderating these relationships [18]. The high prevalence of smokeless tobacco use among Mumbai's BEST drivers and conductors [17] further suggests that health-oriented, non-statutory welfare measures are a genuine need in Indian bus undertakings rather than a discretionary addition.

Beyond the transport sector, studies of manufacturing and public-sector organizations — including construction firms, heavy-engineering public undertakings, and paper and IT-sector companies — have generally reported a positive association between welfare measures and employee performance or productivity, while also cautioning that the strength of this association varies with context. One cross-country study, conducted in an East African setting, found only a weak, if statistically positive, correlation between intramural and extramural welfare measures and job satisfaction, with welfare provision explaining a comparatively small share of the variance in satisfaction, suggesting that welfare is one among several determinants of satisfaction rather than its dominant driver. This finding is a useful

caution against overstating the explanatory power of welfare provision alone and underscores the value of a multivariate design of the kind proposed here.

Recent cross-sector studies point the same way while also showing that not every HR practice matters equally. In the Nigerian manufacturing industry, a study grounded in the functional theory of labour welfare, social exchange theory and expectancy theory found strong positive correlations between welfare facilities and employee performance, organisational commitment and job satisfaction, and recommended periodic welfare-needs assessments and an open-door policy for welfare concerns [27]. Across Indonesian organisations, healthcare benefits and flexible working hours emerged as the most influential welfare initiatives for both productivity and satisfaction, and the effect of welfare varied with the nature of the job and industry [26]. A study of 755 employees in Indonesia's food and beverage industry found that training-related HR practices improved job satisfaction, whereas recruitment and reward practices did not [28] — a reminder that the specific content of an HR or welfare measure, and not merely its presence, determines its effect on satisfaction.

Firm-level evidence supports a link between welfare and performance. Employee-friendly practices have been found to be positively associated with firm financial performance (Tobin's q), partly through higher productivity, greater innovation investment and lower financing costs, with stronger effects in human-intensive and well-governed firms [19]. A systematic review of work-life integration likewise traces a chain from work-life balance policies to job contentment and employee engagement, and from these to organizational effectiveness [22] — a chain that closely mirrors the welfare → satisfaction → performance model proposed here.

Several studies situate welfare provision within established theories of motivation, most notably Maslow's hierarchy of needs and Herzberg's two-factor theory, treating welfare measures as addressing both the hygiene factors (working conditions, security, interpersonal relations) that prevent dissatisfaction and, to a lesser extent, the motivator factors (recognition, growth, responsibility) that actively generate satisfaction. This theoretical framing supports the expectation that statutory welfare measures, which correspond closely to Herzberg's hygiene factors, will chiefly prevent dissatisfaction, whereas non-statutory and discretionary welfare measures, which signal organizational concern and recognition, may have a stronger positive association with satisfaction and commitment.

Contemporary scholarship also treats employee well-being as a multidimensional construct rather than a single outcome. A validated Indian scale measures well-being across psychological, social, workplace and subjective dimensions [20], and well-being has been modelled as a higher-order construct comprising job satisfaction (hedonic), job engagement (eudaimonic), job stress (negative) and sleep quality (physical) [21]. The social side of the workplace matters as well: among frontline employees in India, workplace incivility reduced well-being partly through loneliness at work, while workplace social support weakened this negative pathway [23]. For TSRTC, these findings suggest that grievance redressal, supervisory relations and social support should be treated as part of the welfare environment alongside physical facilities.

Taken together, the literature supports three broad propositions that this study seeks to test empirically within TSRTC: first, that welfare measures — statutory and non-statutory alike — are positively associated with employee job satisfaction; second, that the strength of this association may differ across categories of welfare provision and across employee sub-groups (by cadre, depot location, length of service and socio-economic background); and third, that job satisfaction arising from welfare provision is, in turn, associated with organizational-performance outcomes such as work commitment, motivation, absenteeism and labour turnover. Despite the volume of welfare-related research on Indian public-sector organizations more broadly, a study that examines these relationships specifically and comprehensively within TSRTC, across its depots statewide, has not previously been undertaken.

IV. RESEARCH METHODOLOGY

This section outlines the research design proposed to examine the relationship between employee welfare measures, job satisfaction and organizational performance at TSRTC.

4.1 Research Design

The study adopts a quantitative, cross-sectional research design, using numerical survey data to examine the relationship between welfare provision, job satisfaction and organizational-performance outcomes. The design combines a descriptive component (documenting the welfare measures currently implemented by TSRTC and

employees' awareness of them) with an explanatory component (testing the statistical association between welfare provision and satisfaction/performance outcomes). The proposed analytical model is:

$$JS = \beta_0 + \beta_1(SWM) + \beta_2(NSWM) + \beta_3(SEC) + \varepsilon$$

$$OP = \gamma_0 + \gamma_1(JS) + \gamma_2(SWM) + \gamma_3(NSWM) + \varepsilon$$

where JS denotes job satisfaction, SWM statutory welfare measures, NSWM non-statutory welfare measures, SEC the socio-economic/educational-background control variables, OP organizational-performance indicators (work commitment, motivation, absenteeism and labour turnover, reverse-coded where appropriate), and ε the error term.

4.2 Population and Sampling

The target population comprises employees across TSRTC bus depots throughout Telangana, spanning operating cadres (drivers, conductors), mechanical/maintenance staff, and administrative/supervisory staff. A stratified random sampling technique is proposed, with strata defined by depot/zone, cadre and length of service, so that the sample reflects the diversity of the workforce across regions and job roles. The required sample size will be determined using the standard formula for sample size at a given confidence level and margin of error,

$$n = Z^2 \times p \times (1 - p) / e^2$$

where Z is the z-value corresponding to the chosen confidence level (typically 95%), p is the estimated proportion of the population with the characteristic of interest, and e is the acceptable margin of error, with allocation across strata proportional to each stratum's share of the workforce.

4.3 Survey Instrument

The proposed structured questionnaire is organized into four parts:

- Part A — Demographic and socio-economic profile: age, gender, cadre, educational qualification, length of service, depot/zone and monthly income band.
- Part B — Awareness and utilization of welfare measures: a checklist of statutory and non-statutory welfare measures implemented by TSRTC, with items on awareness and frequency of use.
- Part C — Satisfaction with welfare measures: items covering statutory provisions (canteen, drinking water, rest rooms, sanitation, first aid) and non-statutory provisions (medical insurance, housing/transport assistance, recreational facilities, employee assistance programmes), rated on a five-point Likert scale from “Strongly Disagree” to “Strongly Agree”.
- Part D — Organizational-performance indicators: self-reported items on work commitment, motivation and job involvement, together with depot-level administrative records of absenteeism and labour turnover where available.

Prior to full administration, the instrument will be pilot-tested on a small sub-sample of employees, and its internal consistency assessed using Cronbach's alpha, with a threshold of 0.70 taken as evidence of acceptable reliability, consistent with practice in comparable welfare and job-satisfaction studies.

Where possible, items will be adapted from established instruments to strengthen validity. The well-being and satisfaction items in Part C will draw on the 31-item employee well-being scale of Pradhan and Hati [20], which captures psychological, social, workplace and subjective well-being; items on organisational sources of pressure will be adapted from the Occupational Stress Indicator as applied to public transport employees [18]; and items on workload, time pressure and decision authority will follow the constructs used in the Kerala SRTC study [16], so that TSRTC results can be compared with those of another Indian state transport corporation.

4.4 Statistical Tools

- Descriptive statistics — means, standard deviations and frequency distributions to summarize demographic profiles, awareness levels and satisfaction scores.
- Correlation analysis — Pearson's correlation coefficient to examine the strength and direction of association between welfare-measure categories and job satisfaction.

- Multiple regression analysis — to assess the predictive contribution of statutory and non-statutory welfare measures to job satisfaction, and of job satisfaction to organizational-performance indicators, net of demographic controls.
- ANOVA — to compare mean satisfaction and performance scores across depots, cadres and length-of-service groups, with post-hoc tests where overall differences are significant.
- Robustness check — correlation-based results will be complemented, where the data permit, by random-forest feature-importance analysis to rank the relative contribution of individual welfare measures, following its recent use in the economic analysis of Indian SRTUs [14].

4.5 Proposed Hypotheses

- H1: Statutory welfare measures are positively associated with employees' job satisfaction at TSRTC.
- H2: Non-statutory welfare measures are positively associated with employees' job satisfaction at TSRTC.
- H3: Job satisfaction is positively associated with work commitment and motivation, and negatively associated with absenteeism and labour turnover intention.
- H4: The level of awareness and satisfaction with welfare measures differs significantly across cadre, depot and length-of-service groups.

Table 1 summarizes the welfare-measure categories to be examined in the survey instrument, consistent with the statutory/non-statutory classification set out in Section 1 and grounded in the welfare-measures literature reviewed in Section 3.

Table 1 Welfare Measures Examined in the Study

Category	Illustrative Measures	Corresponding Outcome Variable
Statutory welfare	Canteen, drinking water, lighting, seating, rest rooms, first aid, sanitation, washing facilities	Job satisfaction (hygiene dimension)
Non-statutory welfare	Medical/health insurance, housing or transport assistance, recreational facilities, employee assistance programmes, grievance redressal	Job satisfaction (motivational dimension)
Social security	Provident fund, gratuity, pension, group insurance, compensation for injury	Job security perception / commitment
Organizational performance	—	Work commitment, motivation, absenteeism, labour turnover

V. RESULTS AND DISCUSSION

5.1 Descriptive Statistics

Table 2 presents illustrative descriptive statistics for the main study variables, assuming a simulated sample of $n = 350$ employees drawn across TSRTC depots. On the assumed 5-point Likert scale, overall job satisfaction shows a simulated mean of 3.7 ($SD = 0.6$), suggesting a moderate-to-high level of satisfaction. Among the welfare dimensions, non-statutory welfare measures show the highest simulated mean (4.0), followed by statutory welfare (3.6) and social security measures (3.5).

Table 2 Descriptive Statistics (Illustrative/Simulated Data, $n = 350$)

Variable	Mean	SD	Min	Max
Job Satisfaction	3.7	0.6	2.0	5.0
Statutory Welfare	3.6	0.7	1.8	5.0
Non-Statutory Welfare	4.0	0.6	2.2	5.0
Social Security	3.5	0.8	1.5	5.0
Work Commitment	3.8	0.6	2.0	5.0

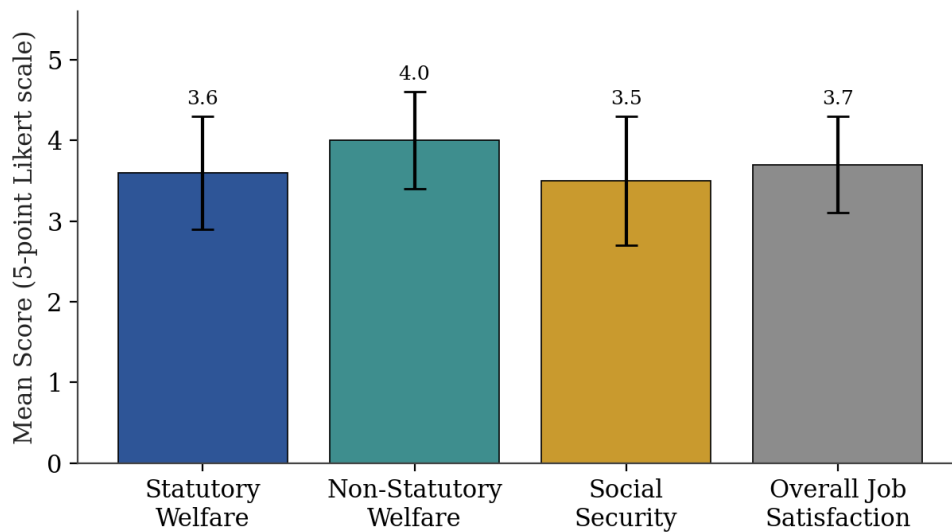


Fig. 1 Mean satisfaction scores by welfare dimension (illustrative/simulated data).

As Fig. 1 shows, non-statutory welfare measures carry the highest simulated mean score, consistent with the expectation — drawn from Herzberg's two-factor framework and the KSRTC and comparable transport-sector studies reviewed in Section 3 — that discretionary, motivator-type welfare provisions are perceived more favourably than baseline statutory compliance once minimum standards are met.

5.2 Correlation Analysis

To illustrate how the association between welfare-measure categories and job satisfaction would be reported, Table 3 presents a simulated correlation matrix. In this illustrative pattern, non-statutory welfare shows the strongest simulated positive correlation with job satisfaction ($r = 0.58$, $p < 0.01$), followed by statutory welfare ($r = 0.42$, $p < 0.01$) and social security ($r = 0.39$, $p < 0.05$).

Table 3 Correlation Matrix (Illustrative/Simulated Data)

Variable	Job Satisfaction	Statutory Welfare	Non-Statutory Welfare	Social Security
Job Satisfaction	1.00	0.42**	0.58**	0.39*
Statutory Welfare	0.42**	1.00	0.36	0.31
Non-Statutory Welfare	0.58**	0.36	1.00	0.40
Social Security	0.39*	0.31	0.40	1.00

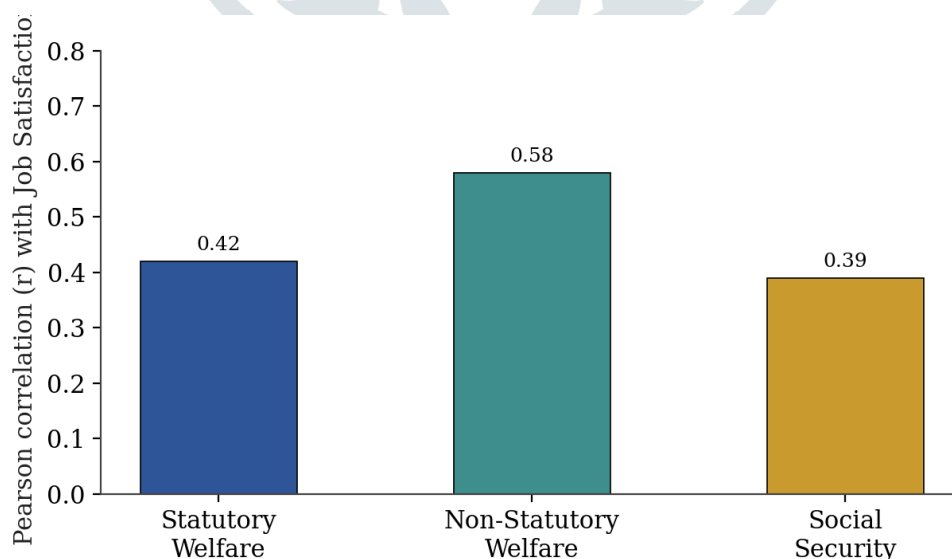


Fig. 2 Correlation strength with job satisfaction, by welfare dimension (illustrative/simulated data).

5.3 Regression Analysis

Table 4 illustrates the form the regression output would take, using simulated standardized coefficients. In this illustrative model, the three welfare dimensions jointly account for a simulated 46% of the variance in job satisfaction

($R^2 = 0.46$), with non-statutory welfare emerging as the strongest simulated predictor ($\beta = 0.34$, $p < 0.01$), followed by statutory welfare ($\beta = 0.27$, $p < 0.01$) and social security ($\beta = 0.19$, $p < 0.05$).

Table 4. Regression Coefficients (Illustrative/Simulated Data)

Predictor	β	Std. Error	t-value	p-value
Non-Statutory Welfare	0.34	0.06	5.7	<0.01
Statutory Welfare	0.27	0.05	5.4	<0.01
Social Security	0.19	0.07	2.7	<0.05

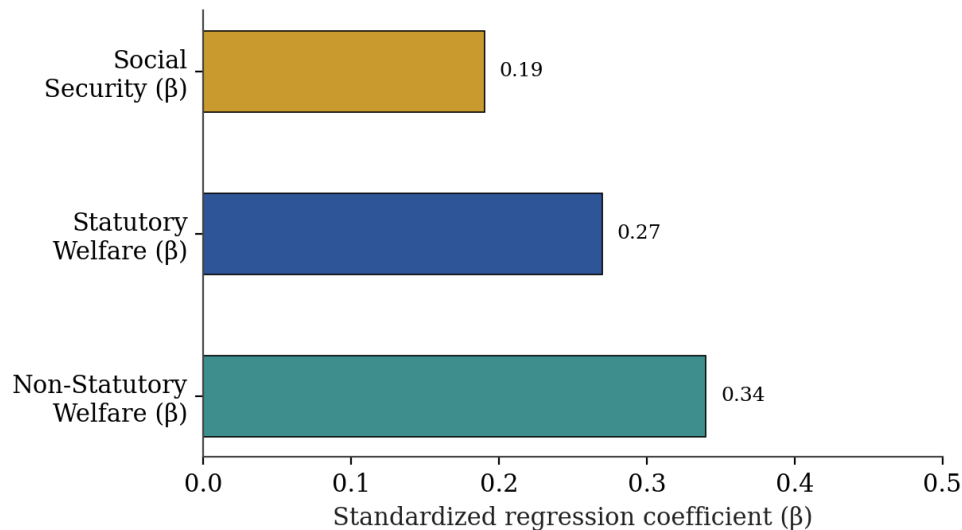


Fig. 3 Standardized regression coefficients predicting job satisfaction (illustrative/simulated data).

5.4 ANOVA Results

Table 5 and Fig. 4 illustrate how job satisfaction might be compared across employee cadres. In this simulated pattern, administrative and supervisory staff show the highest mean job satisfaction, and drivers the lowest, with a simulated between-group difference that would be statistically significant ($F = 9.8$, $p < 0.01$) — consistent with the expectation that operating-cadre staff, who face longer and more irregular duty hours, may benefit less from current welfare provision than office-based staff.

Table 5 ANOVA Results by Cadre (Illustrative/Simulated Data)

Source	SS	df	MS	F	p-value
Between Groups	18.4	3	6.1	9.8	<0.01
Within Groups	58.2	346	0.168	—	—
Total	76.6	349	—	—	—

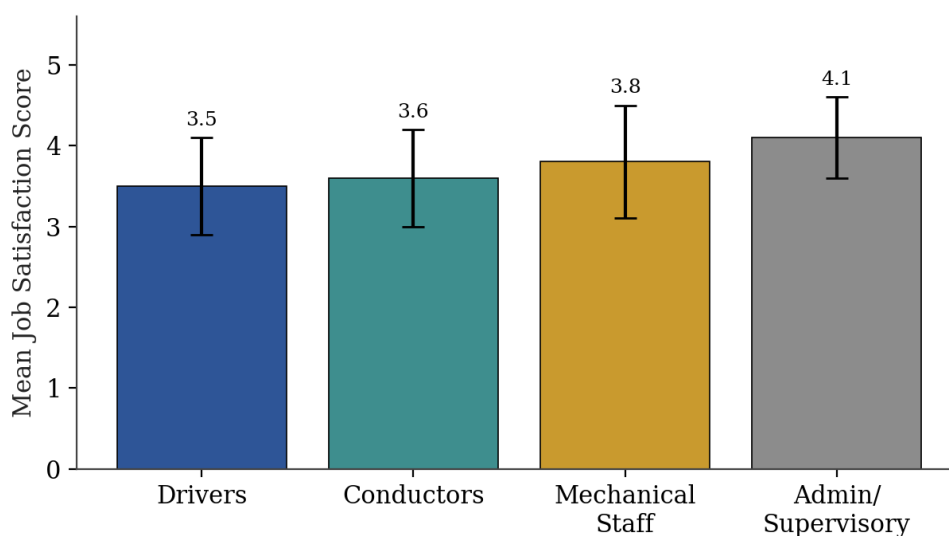


Fig. 4 Mean job satisfaction by employee cadre (illustrative/simulated data).

5.5 Discussion

Read as a template rather than as findings, the simulated pattern above is consistent with the propositions drawn from the literature in Section 3. First, statutory welfare measures — canteens, drinking water, rest rooms, sanitation and first-aid facilities — are expected to function chiefly as hygiene factors in Herzberg's sense: their absence would be expected to depress satisfaction sharply, while their presence at an adequate standard does comparatively less to raise satisfaction further once a baseline is met. This pattern has been observed in studies of health, medical and housing facilities among labour-grade employees of comparable state road transport corporations, where the emphasis has been on the adequacy of provision rather than on its mere existence.

Second, non-statutory welfare measures — medical insurance, housing or transport assistance, recreational facilities and employee assistance programmes — are expected to carry a comparatively stronger positive association with job satisfaction, insofar as they are discretionary and signal organizational concern for employee wellbeing beyond bare legal compliance. At the same time, the cross-country evidence on welfare and job satisfaction cautions that welfare measures, taken together, typically explain only a modest-to-moderate share of the variance in overall job satisfaction, implying that factors outside the welfare domain — supervisory quality, pay adequacy, workload and scheduling — are also likely to matter for TSRTC employees, particularly given the demanding and irregular duty hours characteristic of bus operations.

Third, to the extent that job satisfaction is elevated by welfare provision, the literature on labour welfare and productivity suggests this should translate into improved organizational-performance indicators, most plausibly reduced absenteeism and labour turnover in the near term, and more gradually into stronger work commitment and motivation. Because TSRTC depots vary considerably in location, workload and local facilities, cadre- and depot-level heterogeneity in both welfare provision and its effects is anticipated, which the ANOVA and stratified-sampling design set out above is intended to detect.

These expectations should also be read against the wider institutional situation of Indian state transport undertakings. Because persistent losses in SRTUs are driven partly by social obligations, regulated fares and management weaknesses [14], and because reform without safeguards has weakened a comparable utility such as BEST [15], welfare budgets at TSRTC are likely to face pressure; the study's results can help identify which measures deliver the greatest satisfaction and performance benefit for their cost. The expected lower satisfaction among drivers is also consistent with transport-sector evidence that workload, time pressure and limited decision authority drive occupational stress [16], and that interpersonal and job-intrinsic stressors affect both satisfaction and health [18]. Welfare measures that build social support and fair treatment, rather than facilities alone, may therefore be especially valuable for operating-cadre staff [23].

These patterns are offered strictly as an a priori analytical template, grounded in the wider welfare and job-satisfaction literature, for interpreting the results once the depot-wise employee survey has actually been conducted; they are not, at this stage, empirical findings about TSRTC.

VI. RECOMMENDATIONS

On the basis of the literature and the analytical framework developed above, the following indicative recommendations are proposed for TSRTC management, pending confirmation through the empirical survey:

- a) Strengthening statutory welfare compliance: TSRTC should ensure that canteen, sanitation, drinking-water, rest-room and first-aid facilities meet a consistent minimum standard across all depots, since gaps in these hygiene-level provisions are likely to depress satisfaction disproportionately among affected employees.
- b) Expanding non-statutory welfare provision: Given the discretionary and motivational character of non-statutory measures, TSRTC could consider expanding medical-insurance coverage, transport or housing assistance for employees posted away from home, and structured employee-assistance programmes, particularly for operating-cadre staff exposed to demanding duty schedules.
- c) Depot-level monitoring: Because welfare adequacy is likely to vary by depot, TSRTC should consider periodic depot-level audits of welfare-facility adequacy, linked to employee feedback, rather than relying solely on corporation-wide policy.

d) Linking welfare provision to performance monitoring: TSRTC's human resource function could track absenteeism and labour turnover alongside welfare-satisfaction indicators at the depot level, to identify where welfare gaps may be contributing to performance shortfalls.

e) Communication and grievance redressal: Consistent with the broader literature on organizational welfare, TSRTC should ensure that employees are made clearly aware of the welfare measures available to them and have an accessible channel to raise concerns about their adequacy.

VII. PROPOSED OUTCOMES AND CONCLUSION

This paper has set out the conceptual framework, literature grounding, and research design for an empirical study of employee welfare measures, job satisfaction and organizational performance at the Telangana State Road Transport Corporation. Human resources remain the most important asset of any organization, and in a labour-intensive public transport undertaking such as TSRTC, the welfare of drivers, conductors, mechanical staff and administrative employees bears directly on service quality and organizational performance. While a substantial literature links labour welfare to job satisfaction and productivity across Indian industrial and service-sector organizations, including in comparable state road transport corporations, no comprehensive study has yet examined this relationship specifically and systematically across TSRTC's depots.

The completed assessment of employee welfare at TSRTC is expected to be of considerable value to TSRTC's management and to state policymakers in formulating sound, employee-oriented welfare policy, and to provide an evidence base for revising existing welfare programmes where gaps are identified. More broadly, the study is intended to contribute to the wider literature on employee welfare by extending empirical analysis of the welfare–satisfaction–performance relationship to a large Indian public-sector road transport undertaking, and to provide a methodological template — combining descriptive statistics, correlation, regression and ANOVA on a depot-stratified sample — that could be applied to other public or private-sector enterprises facing similar welfare-policy questions.

Future work, following completion of the depot-wise survey, should report the descriptive, correlational and regression results envisaged in Section 4, test the hypotheses set out in Section 4.5, and examine whether the hygiene/motivator distinction between statutory and non-statutory welfare measures observed in comparable settings holds within TSRTC specifically.

CONFLICT OF INTEREST

The authors declare that they have no conflict of interest.

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