

Impact of Labour Laws on Employee Productivity with Respective to Railways

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ABSTRACT

The employer-employee relationship is based on labour laws, which are important in constructing the relationship and affecting the workplace dynamics, morale, and the overall productivity. This paper empirically examines how compliance with labour laws affects employee productivity in India, where a structured survey was conducted on 200 employees in manufacturing, IT/ITES, banking and retail sectors in Hyderabad, Telangana. The analysis focuses on four major aspects of labour law namely; the knowledge of the legislative frameworks or laws, compliance with wage and compensation, working hours and leave policies and compliance with occupational safety and health. The data were analyzed using a structured Likert-scale questionnaire, descriptive statistics, Pearson correlation, and multiple linear regression. The values of Cronbach Alpha were 0.798 to 0.874, which confirmed the reliability of the scale. The results indicate that all the four dimensions of labour laws have a positive correlation with employee productivity, but safety and health compliance have the highest association ($r = 0.713$, $p = 0.01$). The regression model accounted for 62.7% of variance in productivity ($R^2 = 0.627$, $F = 45.23$, $p < 0.001$). The research concludes that proper compliance with labour laws does not only safeguard the rights of the employees but it is also a strategic tool in the performance of organizations. Policymakers, HR practitioners and organizational leaders are given recommendations.

Keywords: *Labour Laws, Employee Productivity, Wage Compliance, Occupational Safety, Working Hours, HR Policy, Indian Labour Market.*

1. INTRODUCTION

The connection between regulatory systems and employee output is a topic of both long-standing academic researches. The legal framework of employment relations is created by labour laws, which are created to protect the basic rights of employees. The legal environment in the Indian context is especially tricky, as it has a plethora of both central and state laws that govern wages, working conditions, industrial relations, and social security.

The implementation of the four Labour Codes in India such as the Code on Wages (2019), the Industrial Relations Code (2020), the Code on Social Security (2020), and the Occupational Safety, Health and Working Conditions Code (2020) is a significant milestone in consolidation of 44 central labour laws. This legislative change has brought back the scholarly and management interest in how adherence to labour laws can be translated into actual organizational performance, especially employee productivity.

The constellation of factors (motivation, leadership, organizational culture, compensation, and working conditions) affects the employee productivity, which is broadly understood as the efficiency and effectiveness of employees in transforming the inputs into outputs. By imposing minimum standards in each of these fields, labour legislation has the potential to provide an enabling environment to the long-term productive work. On the contrary, failure or lack of awareness of labour stipulations can create grievances, demoralize the labour force, and develop antagonistic industrial relations.

Although this relationship is theoretically salient, the limited empirical studies on the exact mechanisms by which compliance with labour laws can determine the efficiency of employees in the Indian context are scarce. The majority of current literature is either sector-focused or based on qualitative approaches. This paper fills this gap by undertaking well-organized empirical research in various industries with a sample size of 200 workers, employing the analytical methods of quantitative analysis to provide generalizable results.

The research is especially timely in the post-pandemic economic context with organizations renegotiating employment agreements, redesigning workforce models, and prioritizing productivity improvement efforts. Knowledge of how the

compliance of labour law helps or limits these objectives has an immediate practical significance to managers, policymakers and practitioners in industrial relations.

2. REVIEW OF LITERATURE

2.1 Labour Laws and Employee Rights

The concept of the unregulated markets resulting in exploitation of employment terms lies in the theoretical grounds of labour law (Commons, 1934). Scholars of various traditions have expounded on the protective role of labour legislation. Deakin and Wilkinson (2005) had reasoned that labour law developed institutional circumstances to enhance efficiency by ensuring that market failures in the employment relationship are corrected. In their seminal voice model, Freeman and Medoff (1984) established that collective bargaining and labour regulation lowers turnover, enhances communication, and productivity.

In India, Singh (2012) has studied the effects of the Indian Industrial Disputes Act on the employment and productivity of firms and determined that the strict job security clauses affected the firms both positively (less dismissal) and negatively (slower hiring and investments). A state-level analysis of labour regulation in India conducted by Dougherty et al. (2014) revealed significant differences between the states with more liberal labour markets and the ones with lower output growth in manufacturing, which can be attributed to the fact that the design of the regulatory frameworks is important.

2.2 Wage Compliance and Motivation.

The issue of fair compensation and productivity is well established in economic and psychological literature. The efficiency wage theory is one of the theories developed by Shapiro and Stiglitz (1984) that argues that when employers pay above-market, employees work harder because the cost of losing a job increases. The empirical evidence that supports this suggestion has been given by Krueger and Summers (1988) and more recently by Dube, Lester, and Reich (2010) who discovered that the increase in minimum wages in the US did not decrease employment but instead enhanced worker retention and productivity.

Subsequently, Basu et al. (2020) investigated the state-specific levels of compliance with minimum wage laws in India and discovered that wage compliance was significantly correlated with worker satisfaction, which positively influenced the level of absenteeism and quality of output. In their analysis of the textile industry, Mehta and Kapoor (2018) also showed that employees who earned legally required wages and benefits were much more productive as compared to establishments that did not adhere to the laws.

2.3 Leave Policies, Working hours and productivity.

The best working time setup has been a subject of extensive research in the organizational behaviour literature. In his historical study of British munitions workers, Pencavel (2015) determined that productivity per hour decreased rapidly beyond 49 hours per week, disproving the belief that increased hours of work definitely result in higher productivity. Frick and Malo (2008) more recently discovered in European countries that working time regulations are positively correlated to productivity, because they avoid fatigue and allow workers to perform to stable performance levels.

Annual leave, sick leave and maternity/paternity leave policies have also been considered in terms of productivity outcomes. Appelbaum et al. (2006) demonstrated that the employees who had access to paid family leave had greater organizational commitment and reduced turnover intentions. Ghosh (2019) surveyed the employees of the IT sector in India and discovered that sufficient leave rights diminished burnout and made tasks more efficient, which reflects the productivity-saving role of statutory leaves.

2.4 Occupational Safety, Health and Performance.

The workforce productivity has become a key measure of occupational safety and health (OSH) compliance. The economic cost of non-adherence to OSH is highlighted by the fact that occupational accidents and work-related diseases lead to the loss of around 3.94% of global GDP each year (International Labour Organization, 2019), which is why OSH-related issues warrant consideration. Tompa et al. (2016) meta-analyzed 37 studies and reported consistent

evidence along the lines that safety interventions in the workplace are positive in terms of returns on investment in terms of reduced absenteeism and increased morale.

A study by Jha and Bhatt (2017) of the Indian manufacturing scenario revealed that factories with the health and safety provisions of the Factories Act had 23 percent and 17 percent fewer accidents and absenteeism respectively, respectively, which can be quantified into productivity. In their study of pharmaceutical companies, Patel et al. (2021) also reported that strong OSH management systems were positively associated with employee engagement and output quality.

2.5 Organizational outcomes and the awareness of labour laws.

A number of scholars have emphasised employee and employer awareness of labour legislation as a precursor to compliance and its ensuing benefits. In a survey of 350 SME workers in Maharashtra, Das and Misra (2016) discovered that a significant percentage of workers did not know about their statutory rights, such as minimum wage rates, overtime rights, or their entitlement to gratuity. This lack of awareness was linked to decreased job satisfaction and advocacy behavior.

Ratnam (2009) opined that the very complexity of the Indian system of labour laws itself is also a compliance barrier because even well-intentioned employers struggle to figure out which jurisdiction to follow when there is an overlapping of central and state law. Papola and Pais (2018) also argued that the compliance rates could be promoted by simplification of labour laws, which is being tried with the help of the Labour Codes, therefore, increasing the productivity-enhancing potential of the legal framework.

3. RESEARCH GAP

A systematic review of the extant literature reveals that while individual dimensions of labour law have been studied in relation to specific organizational outcomes, a comprehensive multi-dimensional empirical examination of labour law compliance and employee productivity in a cross-sectoral Indian context is conspicuously absent. Specifically, the following gaps have been identified:

- Most Indian studies are confined to single sectors (manufacturing or IT), limiting generalizability across the diverse Indian employment landscape.
- Few studies have simultaneously examined all four dimensions of labour law — awareness, wage compliance, working hours/leave, and OSH — within a unified analytical framework.
- Post-Labour Code (2019–2020) empirical research at the firm and employee level remains nascent, particularly regarding the consolidated Code's impact on productivity perceptions.
- The role of employee awareness of labour rights — as distinct from employer compliance — as an independent predictor of productivity has received insufficient empirical attention.
- Quantitative studies with adequate sample sizes (≥ 200) employing multivariate statistical techniques are limited in the Indian HR management literature on this topic.

This study is designed to address these gaps by conducting a structured, cross-sectoral empirical investigation using validated instruments and robust quantitative methods.

4. OBJECTIVES OF THE STUDY

The study is guided by the following specific objectives:

1. To assess the level of awareness of labour laws among employees across different sectors in Hyderabad.
2. To examine the extent of compliance with wage and compensation provisions and its perceived impact on employee productivity.
3. To evaluate the influence of working hours and leave policy compliance on employee productivity and well-being.
4. To analyze the relationship between occupational safety and health compliance and employee productivity.
5. To determine the collective predictive power of all four labour law dimensions on employee productivity through multiple regression analysis.

6. To offer evidence-based recommendations for organizations and policymakers to leverage labour law compliance as a productivity-enhancement mechanism.

5. HYPOTHESES

Based on the theoretical framework and review of literature, the following research hypotheses have been formulated:

H₁: Labour law awareness is significantly and positively related to employee productivity.

H₂: Compliance with wage and compensation provisions has a significant positive impact on employee productivity.

H₃: Adherence to working hours and leave policies significantly and positively influences employee productivity.

H₄: Occupational safety and health compliance has a significant positive effect on employee productivity.

H₅: Labour law compliance dimensions collectively and significantly predict employee productivity.

6. RESEARCH METHODOLOGY

6.1 Research Design

The study adopts a descriptive and analytical research design. Primary data has been collected using a quantitative survey-based method involving employees in various sectors. The cross-sectional design will allow simultaneous analysis of various variables in various respondent groups and organizations.

6.2 Population and Sample

The target population includes employees in the formal sector organizations in Hyderabad, Telangana, across the manufacturing, IT/ITES, banking and financial services, and retail segments. Sampling of 200 was used based on stratified random sampling with proportionality of representation based on sectors and demographic groups. The sample size of 200 is sufficiently large to support multiple regression that includes five or more predictors, which is recommended by Hair et al. (2019) who suggest that a minimum number of 10 observations are required per predictor variable.

6.3 Data Collection Instrument

A questionnaire was created in the form of a structured Likert-scale, in two parts. A gave demographic data such as gender, age, education level, work experience, industry sector. Section B entailed 35 items that were spread in five constructs:

- Labour Law Awareness (8 items) — evaluated the knowledge of the main legislative provisions, rights and entitlements, and dispute resolution mechanisms.
- Wage & Compensation Compliance (6 items) — evaluated perceptions of equitable and legal payment procedures (minimal wage compliance, overtime compensation, and deductions transparency).

Working Hours and Leave Policy (7 items) — assessed the adherence to the statutory working limits, weekly rest and the leave entitlements.

- Occupational Safety and Health Compliance (6 items) - evaluated safety infrastructure at the workplace, preventive accidents and support health provisions.

Employee Productivity (8 items) - self-reported performance quality, efficiency in performing tasks, motivation, and commitment to the organization.

Answers were also taken on a 5-point Likert scale with 1 (Strongly Disagree) to 5 (Strongly Agree) as answers. Pilot-testing was conducted with 30 respondents and the questionnaire was refined using the feedback that was obtained.

6.4 Validity and Reliability

The three HRM faculty members and two HR practitioners reviewed the content to establish content validity. The exploratory factor analysis was used to evaluate construct validity where all items had loadings of above 0.60 to their respective constructs. Cronbachs Alpha was used to measure internal consistency reliability where all the constructs were greater than the acceptable level of 0.70 (Nunnally, 1978).

6.5 Data Collection Procedure

Data were gathered in October to December 2024 with the combination of personal survey administration and online distribution in Google Forms. All participants gave informed consent. During data collection, anonymity and confidentiality were guaranteed. Out of 230 questionnaires sent, 212 were returned, 200 completed and usable, which led to the valid response rate of 86.96.

6.6 Statistical analysis and tools.

The analysis of data was done with the help of SPSS Version 26.0. The methods of analysis used included: descriptive statistics (mean, standard deviation, median, mode), Cronbachs Alpha to measure reliability, Pearson correlation coefficient to measure bivariate relationships and multiple linear regression to test the overall predictive performance of labour law dimensions in productivity. Statistical significance was checked at $p(0.05)$ and $p(0.01)$.

7. DATA ANALYSIS AND INTERPRETATION

7.1 Demographic Profile of Respondents

Table 1 presents the demographic distribution of the 200 survey respondents.

Table 1: Demographic Profile of Respondents (n = 200)

Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	120	60%
	Female	80	40%
Age Group	20–30 years	52	26%
	31–40 years	78	39%
	41–50 years	48	24%
	Above 50 years	22	11%
Education	Graduate	70	35%
	Post Graduate	95	47.5%
	Professional Degree	35	17.5%
Work Experience	< 2 years	30	15%
	2–5 years	55	27.5%
	6–10 years	75	37.5%
	> 10 years	40	20%
Sector	Manufacturing	65	32.5%

Variable	Category	Frequency (n)	Percentage (%)
	IT/ITES	55	27.5%
	Banking & Finance	45	22.5%
	Retail	35	17.5%

The sample is slightly male (60%), which is a reflection of the formal sector workforce in the industries that were surveyed. Most respondents are aged between 31 and 40 (39 percent), which is indicative of a mature workforce with a rich experience. The modal category of education is post-graduate qualification (47.5%), which suggests that there is a fairly educated workforce. The largest group (37.5) is experience between 610 years which will give a respondent base with sufficient exposure to the organization to determine compliance with labour laws. The manufacturing industry is the most represented (32.5%), then IT/ITES (27.5%).

7.2 Reliability Statistics

Table 2: Reliability Analysis — Cronbach's Alpha

Construct	No. of Items	Cronbach's Alpha
Labour Law Awareness	8	0.821
Wage & Compensation	6	0.798
Working Hours & Leave	7	0.813
Safety & Health Compliance	6	0.836
Employee Productivity	8	0.849
Overall Scale	35	0.874

All constructs demonstrate satisfactory internal consistency, with Cronbach's Alpha values ranging from 0.798 (Wage & Compensation) to 0.874 (Overall Scale). These values exceed the conventionally accepted threshold of 0.70, confirming the reliability of the measurement instrument. The overall scale Alpha of 0.874 indicates excellent internal consistency, justifying the use of composite scores in subsequent analyses.

7.3 Descriptive Statistics

Table 3: Descriptive Statistics of Study Variables

Variable	Mean	Std. Dev.	Median	Mode
Labour Law Awareness	3.42	0.87	3.00	4.00
Wage & Compensation Compliance	3.61	0.79	3.50	4.00
Working Hours & Leave Policy	3.38	0.92	3.00	4.00
Safety & Health Compliance	3.71	0.84	4.00	4.00
Employee Productivity (Overall)	3.55	0.81	4.00	4.00

The mean scores across all constructs range from 3.38 (Working Hours & Leave Policy) to 3.71 (Safety & Health Compliance), suggesting that respondents perceive moderate-to-good compliance across all labour law dimensions on the five-point scale. Safety & Health Compliance records the highest mean, possibly reflecting heightened organizational attention to workplace safety in the post-COVID-19 environment. Working Hours & Leave Policy records the lowest

mean (3.38) and the highest standard deviation (0.92), indicating the greatest variability in perceptions and potentially the most significant area of non-compliance. Employee Productivity records a mean of 3.55 with a standard deviation of 0.81, indicating moderate-to-high self-reported productivity.

7.4 Pearson Correlation Analysis

Table 4: Pearson Correlation Matrix

Variable	1	2	3	4	5
1. Labour Law Awareness	1.000	0.612**	0.589**	0.643**	0.671**
2. Wage & Compensation	0.612**	1.000	0.574**	0.621**	0.698**
3. Working Hours & Leave	0.589**	0.574**	1.000	0.597**	0.654**
4. Safety & Health	0.643**	0.621**	0.597**	1.000	0.713**
5. Employee Productivity	0.671**	0.698**	0.654**	0.713**	1.000

** Correlation is significant at the 0.01 level (2-tailed)

The correlation matrix reveals significant positive associations between all four labour law dimensions and employee productivity ($p < 0.01$). Safety & Health Compliance demonstrates the strongest correlation with productivity ($r = 0.713$), followed by Wage & Compensation ($r = 0.698$), Labour Law Awareness ($r = 0.671$), and Working Hours & Leave Policy ($r = 0.654$). The inter-correlations among the four predictor variables are moderate (ranging from 0.574 to 0.643), suggesting the presence of shared variance but not problematic multicollinearity. These findings provide initial empirical support for all four hypotheses (H1 through H4).

7.5 Multiple Linear Regression Analysis

Table 5: Multiple Linear Regression — Predictors of Employee Productivity

Predictor Variable	Beta (β)	Std. Error	t-value	p-value
Labour Law Awareness	0.241	0.063	3.825	0.001**
Wage & Compensation	0.298	0.071	4.197	0.000**
Working Hours & Leave	0.213	0.068	3.132	0.002**
Safety & Health Compliance	0.319	0.074	4.311	0.000**
$R^2 = 0.627$, Adjusted $R^2 = 0.613$, $F(4,195) = 45.23$, $p < 0.001$				

** $p < 0.01$; Dependent Variable: Employee Productivity

The multiple regression model is statistically significant [$F(4, 195) = 45.23$, $p < 0.001$] and explains 62.7% of the variance in employee productivity ($R^2 = 0.627$, Adjusted $R^2 = 0.613$). All four predictor variables contribute significantly to the prediction of productivity. Safety & Health Compliance emerges as the strongest independent predictor ($\beta = 0.319$, $t = 4.311$, $p < 0.001$), followed by Wage & Compensation ($\beta = 0.298$, $t = 4.197$, $p < 0.001$), Labour Law Awareness ($\beta = 0.241$, $t = 3.825$, $p < 0.001$), and Working Hours & Leave Policy ($\beta = 0.213$, $t = 3.132$, $p < 0.002$). These results confirm Hypothesis H5 and provide robust support for the collective predictive power of labour law compliance dimensions on employee productivity.

7.6 Hypothesis Testing Summary

Table 6: Hypothesis Testing Results

H	Hypothesis	Test Result	Decision
H1	Labour law awareness positively influences employee productivity	$r = 0.671, p < 0.01$	Supported
H2	Wage & compensation compliance is positively related to productivity	$r = 0.698, p < 0.01$	Supported
H3	Working hours & leave policies positively affect productivity	$r = 0.654, p < 0.01$	Supported
H4	Safety & health compliance has a positive impact on productivity	$r = 0.713, p < 0.01$	Supported
H5	Labour law compliance collectively predicts employee productivity	$F = 45.23, p < 0.001, R^2 = 0.627$	Supported

All five hypotheses formulated for this study are supported by the empirical evidence at the 0.01 level of significance. This provides strong empirical validation of the theoretical proposition that labour law compliance across its multiple dimensions is a significant and positive predictor of employee productivity in the Indian context.

8.FINDINGS

- Analysis of data collected from 20 respondents indicates that most participants showed agreement with the statements, with mean values generally above 3.5, reflecting a positive perception toward the study variables.
- The standard deviation values were low, indicating consistency and less variation in the responses among respondents.
- The results reveal that OTT platform usage is high among respondents, with many indicating increased screen time due to easy accessibility and content variety.
- A significant reduction in traditional television viewing was observed, suggesting a shift in media consumption patterns from TV to OTT platforms.
- Statistical testing (t-test) shows that the relationship between OTT consumption and reduced TV viewing is significant ($p < 0.05$), confirming the impact of OTT platforms.
- The findings indicate that OTT usage moderately affects social behavior, with some respondents experiencing reduced face-to-face interactions.
- However, the influence on social behavior is not very strong, suggesting only a partial effect.
- Increased OTT consumption is associated with a decline in physical activity levels among respondents.
- The correlation analysis indicates a moderate negative relationship between OTT usage and physical activity.

- Hypothesis testing shows that there is a significant association between OTT consumption and reduced TV viewing, leading to acceptance of the first hypothesis.

9. SUGGESTIONS AND RECOMMENDATIONS

- **Labour Law Literacy Programs:** Organizations are supposed to have frequent, well-structured training programs on provisions of the labour laws to all their employees including new hires. The awareness (lowest mean in this study) and the information asymmetry that tends to invalidate compliance and grievance management are improved by such programs.
- **Clear Compensation Systems:** Employers should have transparent payroll systems that are easily understood with regards to wage elements, deductions and overtime computation. The compliance can be achieved with the help of digital payslips, available HR portals, and frequent salary audits that can be used to win the trust of the employees.
- **Working Time Management Systems:** Companies ought to have a well-developed time-tracking system that will exclude the systematic overtime breaches and make sure that statutory rest periods are respected. Compliance and productivity can be maximized by flexible working arrangements where legally possible.
- **OSH Investment as Strategic Priority:** Since safety and health compliance is the best predictor of productivity, organizations are highly encouraged to invest proactively in safety infrastructure, hazard identification, mental health support, and ergonomic workplace design, instead of viewing OSH compliance as a cost center.
- **Internal Compliance Audits:** HR teams ought to carry out regular internal compliance audits of the labour laws in all the aspects and create effective mechanisms of escalation of non-compliance and ensure that employees and the company are not exposed to any legal and reputational risk.
- **Simplification/Codification:** The 44 central laws should be simplified and codified so that alongside widespread awareness, plain-language guidance manuals, and digital compliance solutions, especially to SMEs, which do not have an actual legal/compliance department.
- **Strengthening Labour Inspection:** Regulatory authorities must increase the amount of labour inspection, implement risk-based inspection standards, and use technology (online compliance portals, AI-assisted monitoring) to enhance the scope and efficiency of enforcement.
- **Incentivizing Compliance:** Tax incentives, preferential treatment to government contracts, or certification programs of compliant employers may provide positive incentives to voluntary compliance, in addition to punitive enforcement instruments.
- **Sector-Specific Advice:** Since compliance issues vary among sectors (as this paper has shown), sector-specific labour law advice and industry-specific compliance models are needed, especially in new sectors like gig economy platforms and the informal-formal interface.

10. CONCLUSION

This paper aimed to empirically explore the influence of labour law compliance on employee productivity in India based on a sample of 200 employees in manufacturing, IT/ITES, banking and retail industries in Hyderabad. The results give strong evidence that compliance with labour law - based on the dimensions of awareness, wage and compensation,

working hours and leave, and occupational safety and health - is positively and significantly related to employee productivity.

The regression equation, which explains 62.7% of the productivity change, confirms that labour laws are not a regulatory millstone, but they are actually a functional part of the process of ensuring that human capital can be used to its best advantage. Compliance infrastructure investments in organizations are, in a way, investments in the motivational and health basis of the productive capacity of workforce.

The fact that safety and health compliance is, by far, the most significant predictor of productivity is an important message to the Indian industry: in the age of increased competition, the urge to compromise safety in the workplace must be overcome, both on moral and legal counts, but on the economic level as well. Employees who are safe and healthy, fairly remunerated and legally guarded are proven to be more productive employees.

With India in the process of enforcing the consolidated Labour Codes, and aiming to establish itself as a manufacturing and services powerhouse in the world, it will be of paramount importance that the reforms in the regulatory framework in question will be, in fact, translated into the actual changes in the employment conditions. This research paper adds empirical data to that policy debate and maps out a research agenda to further explore the productivity-enhancing potential of strong labour governance.

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