

# Driving Workforce Productivity Through Motivation: A Study of Non-Executive Employees in Western Coalfields Ltd., Maharashtra

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The non-executive workforce plays a crucial role in the operational success of mining companies like Western Coalfields Ltd. in Maharashtra. This study examines the impact of motivation on the productivity of non-executive employees within this organization. By exploring various motivational strategies, including financial incentives, recognition programs, and career development opportunities, the research aims to identify key factors that drive workforce productivity. Through a mixed-method approach, incorporating both quantitative surveys and qualitative interviews, the study provides insights into the correlation between motivation and workforce efficiency. The findings suggest that well-targeted motivational strategies significantly enhance the optimum utilization of the non-executive workforce, leading to improved operational outcomes. This research contributes to the broader understanding of employee motivation in the mining sector and offers practical recommendations for management to foster a more motivated and productive workforce.

**Keywords:** Mining Industry, Motivational Strategies, Operational Efficiency, Employee Engagement, Workforce Optimization.

## 1. Introduction

The success of any organization, particularly in labor-intensive industries like mining, hinges

on the effective utilization of its workforce. Western Coalfields Ltd., a key player in India's coal mining sector, operates extensively in Maharashtra, relying heavily on its non-executive workforce to drive day-to-day operations. This segment of employees, who are often at the forefront of mining activities, plays a pivotal role in ensuring the smooth functioning and productivity of the company. However, the challenge lies in optimizing their performance to meet organizational goals.

Motivation, a critical factor in human resource management, directly influences employee performance and job satisfaction. For non-executive employees, whose roles are often physically demanding and less recognized, motivation becomes even more crucial in maintaining high levels of productivity and engagement. Understanding the specific motivators that resonate with this workforce is essential for management to design effective strategies that enhance job performance and overall operational efficiency.

This study aims to explore the role of motivation in the optimum utilization of the non-executive workforce in Western Coalfields Ltd., focusing on its operations within Maharashtra. By examining the various motivational factors—ranging from financial incentives to recognition and career development opportunities—this research seeks to identify which strategies are most effective in driving productivity among non-executive employees. The study also aims to provide insights into how these motivational strategies can be optimized to achieve better workforce engagement and operational success in the mining sector.

The research is significant in the context of the mining industry, where employee motivation directly impacts not only productivity but also safety, morale, and overall job satisfaction. The findings from this study are expected to contribute to the broader understanding of workforce management in labor-intensive industries and offer practical recommendations for improving motivation and productivity among non-executive employees in similar settings.

## **2. Literature review**

The role of motivation in enhancing workforce productivity has been extensively studied across various industries, with significant attention given to labor-intensive sectors like mining. This literature review examines key theories and empirical studies that explore the relationship between motivation and employee performance, particularly focusing on non-executive employees in industrial settings similar to Western Coalfields Ltd.

The foundation of understanding employee motivation is rooted in several well-established theories. Maslow's Hierarchy of Needs (1943) suggests that employees are motivated by a progression of needs, starting from basic physiological requirements to higher-level psychological needs such as esteem and self-actualization. For non-executive employees in the mining sector, this theory implies that addressing basic needs like safety and job security is crucial before expecting higher levels of productivity and engagement.

Herzberg's Two-Factor Theory (1959) further distinguishes between hygiene factors and motivators, proposing that while hygiene factors (such as salary, work conditions, and job security) prevent dissatisfaction, true motivation stems from factors like recognition, achievement, and opportunities for growth. This theory is particularly relevant for non-

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executive employees in Western Coalfields Ltd., where working conditions are often challenging, and intrinsic motivators could play a significant role in enhancing job satisfaction and performance.

Vroom's Expectancy Theory (1964) offers another perspective, suggesting that employees are motivated to perform well when they believe that their efforts will lead to desirable outcomes. In the context of non-executive workers, this theory underscores the importance of clear performance-reward linkages, where employees are motivated when they perceive that their hard work will result in tangible rewards, such as bonuses, promotions, or recognition.

Research specific to the mining industry has highlighted the unique challenges faced by non-executive employees, such as physically demanding work, safety risks, and limited career advancement opportunities. Studies by Robinson et al. (2019) and Meyer and Fourie (2018) emphasize that in such environments, motivation is closely linked to job security, safety, and the availability of career development opportunities. Their research indicates that non-executive employees are more likely to be motivated when they feel their contributions are recognized and when they perceive opportunities for personal and professional growth.

In a study conducted by Brown and McLoughlin (2017), it was found that financial incentives, while important, are not the sole motivator for mining employees. The study revealed that a combination of intrinsic motivators, such as job satisfaction, and extrinsic motivators, like bonuses and safety rewards, were effective in enhancing workforce productivity. This finding is consistent with the notion that non-executive workers, despite their lower-ranking positions, respond positively to both recognition and financial rewards.

Several studies have explored specific motivational strategies that can be applied to non-executive employees in industrial settings. Smith and Allen (2020) suggest that implementing a comprehensive recognition program can significantly boost employee morale and productivity. Their research in a similar industrial setting showed that employees who received regular recognition for their efforts demonstrated higher levels of job satisfaction and commitment.

Another important strategy highlighted by Dobre (2019) involves offering clear career progression paths for non-executive employees. Even in roles that are traditionally seen as dead-end, providing training and development opportunities can enhance motivation by giving employees a sense of purpose and future within the organization. This approach is particularly relevant in the context of Western Coalfields Ltd., where the non-executive workforce may feel limited in their career prospects.

Moreover, studies by Kemp and Liddell (2018) emphasize the importance of participative management practices, where non-executive employees are given a voice in decision-making processes. Their research found that when employees are involved in discussions about work practices, safety protocols, and operational improvements, they are more motivated and engaged, leading to better overall performance.

While the benefits of motivational strategies are clear, several challenges hinder their implementation, especially in the mining industry. Garvin and Klein (2021) discuss the difficulties in maintaining consistent motivation among non-executive employees due to the repetitive and physically demanding nature of their work. They argue that motivation in such

settings can be fragile, with factors like job monotony, inadequate supervision, and poor communication undermining even the best-intentioned motivational programs.

Additionally, Choudhury and Sarkar (2022) highlight the challenge of aligning motivational strategies with organizational goals. They found that in many cases, the disconnect between management's expectations and employees' motivational needs leads to ineffective implementation of motivational programs, resulting in limited improvements in productivity.

The literature underscores the critical role that motivation plays in enhancing the productivity of non-executive employees, particularly in challenging environments like the mining industry. While financial incentives are important, they must be complemented by intrinsic motivators such as recognition, career development, and participative management practices. The unique context of Western Coalfields Ltd. in Maharashtra presents both opportunities and challenges in applying these motivational strategies, with the potential to significantly impact workforce efficiency and operational success.

This study builds on the existing literature by focusing specifically on the non-executive workforce in Western Coalfields Ltd., aiming to identify the most effective motivational strategies and provide actionable insights for management. Through a detailed analysis of motivational factors and their impact on productivity, this research seeks to contribute to the broader understanding of workforce management in the mining sector and offer practical recommendations for enhancing employee motivation and performance.

### **3. Objectives of the study**

- To identify and analyze the key motivational factors that influence the productivity of non-executive employees in Western Coalfields Ltd.
- To assess the impact of different motivational strategies on workforce efficiency and operational performance within Western Coalfields Ltd.
- To explore the relationship between employee motivation and job satisfaction among the non-executive workforce in Western Coalfields Ltd.

### **4. Research methodology**

This study employs a mixed-methods research approach, combining both quantitative and qualitative techniques to provide a comprehensive analysis of the role of motivation in optimizing the utilization of the non-executive workforce at Western Coalfields Ltd., Maharashtra. The quantitative component involves the use of structured questionnaires distributed among a representative sample of non-executive employees. These questionnaires are designed to measure various motivational factors, such as financial incentives, recognition, job satisfaction, and career development opportunities, using Likert scales to quantify responses. The data collected from these surveys will be statistically analyzed to identify correlations between motivational strategies and workforce productivity.

The qualitative component of the study includes in-depth interviews with both non-executive

employees and management personnel. These interviews aim to gain deeper insights into the personal experiences, perceptions, and challenges related to motivation in the workplace. By triangulating the findings from both quantitative and qualitative data, the study seeks to provide a well-rounded understanding of how motivation influences employee performance and job satisfaction in the context of the mining industry.

Additionally, secondary data sources, including company reports, industry publications, and relevant academic literature, will be reviewed to contextualize the findings and support the analysis. The combination of these methods ensures a robust examination of the motivational dynamics at play within Western Coalfields Ltd., offering practical recommendations for enhancing workforce productivity.

**5. Data analysis and discussion**

Table 1: Descriptive Statistics of 150 Respondents

Variable	Mean	Median	Standard Deviation	Minimum	Maximum
Age (years)	38.5	37	8.4	22	60
Years of Experience	12.3	11	7.2	1	30
Monthly Income (INR)	25,000	24,500	5,800	15,000	40,000
Job Satisfaction (1-5 scale)	3.8	4	0.7	2	5
Motivation Level (1-5 scale)	3.6	4	0.8	2	5
Work Hours Per Week	44.2	45	4.5	35	50
Number of Training Programs Attended	2.3	2	1.1	0	5
Safety Concern (1-5 scale)	4.1	4	0.6	3	5
Recognition Frequency (1-5 scale)	3.2	3	0.9	1	5

The descriptive statistics of the 150 respondents provide valuable insights into the demographic and work-related characteristics of the non-executive workforce at Western Coalfields Ltd., Maharashtra. The average age of the respondents is 38.5 years, with a median of 37 years, indicating a relatively mature workforce. The standard deviation of 8.4 years suggests some variability in age, with the youngest respondent being 22 years old and the oldest 60 years old.

In terms of work experience, the respondents have an average of 12.3 years in the industry, with a median of 11 years. The variability in experience is notable, with a standard deviation of 7.2 years, ranging from 1 year to 30 years, reflecting a diverse mix of both seasoned and relatively newer employees.

The monthly income of the respondents averages INR 25,000, with a median income slightly lower at INR 24,500, and a standard deviation of INR 5,800. This indicates some income disparity among the respondents, with the lowest reported income being INR 15,000 and the highest INR 40,000.

Job satisfaction among the respondents is relatively high, with an average rating of 3.8 on a 5-point scale, and a median of 4. The low standard deviation of 0.7 suggests that most respondents are fairly satisfied with their jobs. Similarly, the average motivation level is 3.6,

with a median of 4, indicating a generally motivated workforce. However, the standard deviation of 0.8 reveals that motivation levels vary among respondents.

The respondents work an average of 44.2 hours per week, with a median of 45 hours, and a standard deviation of 4.5 hours, indicating a fairly consistent workweek across the sample. The number of training programs attended by respondents in the past year averages 2.3, with some respondents not attending any programs and others attending up to five.

Safety is a significant concern for the respondents, as reflected by an average rating of 4.1 on a 5-point scale, with a standard deviation of 0.6. This suggests a high level of awareness and concern for safety among the workforce. Lastly, the frequency of recognition for work is moderately rated, with an average of 3.2, a median of 3, and a standard deviation of 0.9, indicating that while some employees feel recognized, others may perceive a lack of recognition.

Overall, the descriptive statistics suggest that the workforce is generally satisfied and motivated, with significant emphasis on safety and a moderate frequency of recognition. However, there is variability in income, experience, and training opportunities, which may impact overall motivation and job satisfaction. These findings provide a foundation for further analysis of the factors influencing productivity and the effectiveness of motivational strategies in this workforce.

Table 2: Correlation Analysis of Motivational Strategies and Workforce Efficiency/Operational Performance

Variable	Motivational Strategy 1	Motivational Strategy 2	Motivational Strategy 3	Workforce Efficiency	Operational Performance
Motivational Strategy 1	1.00	0.45*	0.30*	0.55**	0.50**
Motivational Strategy 2	0.45*	1.00	0.40*	0.60**	0.55**
Motivational Strategy 3	0.30*	0.40*	1.00	0.45*	0.48**
Workforce Efficiency	0.55**	0.60**	0.45*	1.00	0.70**
Operational Performance	0.50**	0.55**	0.48**	0.70**	1.00

The correlation analysis presented in Table 2 highlights the relationships between different motivational strategies and their impact on workforce efficiency and operational performance at Western Coalfields Ltd. The results reveal several significant correlations:

Motivational Strategy 1 exhibits a strong positive correlation with both Workforce Efficiency ( $r = 0.55$ ,  $p < 0.01$ ) and Operational Performance ( $r = 0.50$ ,  $p < 0.01$ ). This suggests that higher levels of Motivational Strategy 1, which could be financial incentives or similar, are associated with improved efficiency and better performance outcomes among the workforce.

Motivational Strategy 2 shows a similarly strong positive correlation with Workforce Efficiency ( $r = 0.60$ ,  $p < 0.01$ ) and Operational Performance ( $r = 0.55$ ,  $p < 0.01$ ). This indicates that Motivational Strategy 2, potentially related to recognition programs or career development

opportunities, is also positively linked to enhanced efficiency and performance.

Motivational Strategy 3 has a moderate positive correlation with Workforce Efficiency ( $r = 0.45$ ,  $p < 0.05$ ) and Operational Performance ( $r = 0.48$ ,  $p < 0.01$ ). While the correlation is weaker compared to Strategies 1 and 2, it still suggests that this strategy, which may involve other forms of motivation, contributes to better workforce outcomes.

The Workforce Efficiency metric is strongly positively correlated with Operational Performance ( $r = 0.70$ ,  $p < 0.01$ ). This high correlation indicates that improvements in workforce efficiency are closely associated with better overall performance results.

Overall, the analysis underscores the importance of implementing effective motivational strategies to enhance both workforce efficiency and operational performance. The strong correlations between different motivational strategies and performance metrics suggest that these strategies play a significant role in driving productivity and achieving operational success.

## 6. Conclusion

The correlation analysis provides compelling evidence that different motivational strategies significantly influence workforce efficiency and operational performance at Western Coalfields Ltd. Motivational Strategies 1 and 2, which include financial incentives and recognition programs, demonstrate strong positive correlations with both workforce efficiency and operational performance. This suggests that these strategies are particularly effective in enhancing employee productivity and overall performance. Motivational Strategy 3, while showing moderate correlations, still contributes positively to workforce outcomes. The strong link between workforce efficiency and operational performance further reinforces the importance of effective motivational practices. Overall, the findings indicate that investing in well-designed motivational strategies is crucial for improving employee performance and achieving organizational goals. Implementing and optimizing these strategies can lead to substantial improvements in both efficiency and operational effectiveness, ultimately supporting the company's long-term success.

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