Assessing The Relationship Between Emotional Intelligence And Employee Productivity: A Case Study Of Manufacturing Workers In Nagpur

Nikita Devendra Goyal[1] , Dr. Sarita Sachin Udapurkar[2]

[1]Research Scholar, Dept. of Business Management RTMNU.
[2]Associate Professor N.M.D. College, Gondia.

Abstract

This study looks at the manufacturing industry in Nagpur, India, and how emotional intelligence (EI) relates to worker output. Given the ever-changing nature of the manufacturing industry and the difficulties that come with it, it is crucial to comprehend how EI may boost productivity. Combining quantitative surveys with qualitative interviews, the research adopts a mixed-methods technique to acquire complete data. The numerical component comprises surveying a cross-section of Nagpur's industrial workforce using standardised EI and productivity questionnaires. Output, efficiency, and quality of work are some of the productivity measures that are measured, along with other aspects of emotional intelligence including self-awareness, self-regulation, social awareness, and relationship management. To determine the nature and direction of the connection between EI and production, statistical methods such as regression and correlation analysis are used.

Also, in order to learn more about how emotional intelligence affects industrial workers' productivity, qualitative interviews are carried out simultaneously. These in-depth interviews give light on the many manifestations of emotional intelligence, the effect it is believed to have on work performance, and the difficulties that arise when trying to put it into practice. The hope is that this study will add to theoretical knowledge and practical consequences by combining quantitative and qualitative data. In order to help HR professionals, managers, and lawmakers improve organizational effectiveness and worker well-being in similar industrial settings, this study sheds light on the complex

relationship between emotional intelligence and employee productivity in Nagpur's manufacturing sector.

Keywords – Emotional Intelligence, Employee Productivity, Manufacturing Workers, Self-awareness, Self-regulation.

Introduction

Economic growth and development in places like Nagpur, India, are driven in large part by the industrial sector. The success of a firm in this field is highly dependent on the efficiency and effectiveness of its employees. Technology, procedures, and resources have always been the focal points of productivity talks. Emotional intelligence (EI) is one of several human characteristics that are increasingly acknowledged as having a significant impact on job performance and productivity.

According to Goleman (1995), emotional intelligence is the capacity to be aware of, analyze, and control one's own and other people's emotions. Emotional intelligence is becoming more important in fast-paced, high-pressure industries like manufacturing, where employees encounter a wide range of problems and interactions with coworkers. Although it might have a significant impact, researchers have paid little attention to the link between EQ and output in industrial settings, especially in Nagpur.

To fill this knowledge vacuum, this research surveys factory employees in Nagpur to determine their levels of emotional intelligence and how it relates to their productivity on the job. Our goal is to provide practical and meaningful insights for companies in comparable industrial environments by zeroing in on this particular situation. In order to improve organizational success and employee well-being, HR policies, training programs, and management practices may be informed by understanding the impact of emotional intelligence on productivity.

In order to provide a thorough analysis of the interplay between EQ and output in the manufacturing sector of Nagpur, this study used a mixed-methods strategy integrating quantitative surveys with qualitative interviews. Not only might this study's results add to academic research, but they could also lead to practical initiatives that create a better work

environment and help industrial businesses in Nagpur and beyond thrive.

Literature review

An individual's capacity to regulate their own emotional responses is known as emotional intelligence (EI) (Cuéllar-Molina et al., 2019). As opposed to extroversion and reflexivity, emotional intelligence focuses on how a person acts or thinks (Abdo et al. 2022). An employee's emotional intelligence (EI) is a reflection of their attitude toward work and their ability to use knowledge to make decisions that impact their interpersonal and intrapersonal interactions (Udimal et al., 2019). In this case, businesses require a leader with the ability to adapt quickly and whose leadership style can pinpoint the specific kinds of changes that are required, develop ideas for those changes, and establish a quantifiable vision for the future (Kucharska, 2021). Employees' stress levels, degree of mind wandering, and performance on cognitive tasks were all positively affected by using EI reflection to the relevance and application of conceptions to their contexts (Liu et al 2022).

Several models have been proposed to describe emotional intelligence, such as composite models, ability-and trait-based models, and others. Generally speaking, they agree that emotional intelligence is a combination of four skills: (1) being able to recognize and label emotions; (2) being able to use emotions as a tool for thinking; (3) understanding and managing emotions; and (4) being able to manage one's emotions. Emotion management entails keeping one's own and other people's emotions under check (Lermen et al 2022). One way to look at performance is as a model of the total anticipated value for a series of instances of an individual's conduct under typical conditions. To put it simply, it refers to (1) the predicted value of the organization and (2) the implication of behavioral traits connected to performance in terms of individual behavior (Nyathi and Kekwaletswe, 2022). Two distinct kinds of performance may be identified: task-specific and context-specific. Tasks unique to each position are defined by performance reviews, which are based on past experience and, to a lesser degree, official job descriptions. However, based on motivation and personality traits, it has been shown that formal incentive systems or management indirectly fail to acknowledge extrarole behavior when it comes to performance in almost all organizations (Meriläinen et al., 2019).

Work behaviors such as absenteeism, turnover, and organizational citizenship may be predicted by measuring job satisfaction, which in turn indicates how people feel about their employment. Work satisfaction may buffer the relationship between personality traits and antisocial conduct on the workplace (Elias, A., & George, J., 2012). When it comes to inspiring and guiding actions, these writers insist that feelings are paramount. A high IQ isn't the only factor that matters for a person's happiness and success in life. Findings from studies show that IQ and academic intelligence do not reliably predict major life events. Employee happiness on the workplace affects both the atmosphere at work and the way managers handle employee relationships. Taking strong and tangible measures is the way to go if you want your employees to be happier in their jobs. Having a high level of emotional intelligence is often believed to lead to greater job satisfaction for employees. This is because employees with greater EQ can anticipate and plan for the ways stress will negatively impact their performance, whereas those with lower EQ will be completely helpless in this regard. Workers that are emotionally intelligent will have more control over their own emotions and the emotions of others around them, which will improve morale for everyone (Cooper, 1997).

Objectives of the study

- To Assess the Emotional Intelligence Levels.
- To Evaluate Employee Productivity Metrics.
- To Examine the Relationship Between Emotional Intelligence and Productivity.

Research methodology

Quantitative surveys, a descriptive method, are used in this study. The correlation between emotional intelligence and output in Nagpur's industrial workforce was better understood thanks to this all-encompassing method. A stratified random sample of manufacturing workers from different businesses in Nagpur was used to obtain this representative sample. Measures of productivity and emotional intelligence are evaluated using standardized tools. Measures of productivity (e.g., output, efficiency) and emotional intelligence (e.g., self-awareness, self-regulation) measured by surveys given to participants. Research on the link between EQ and output has made use of statistical tools including regression models and

correlation coefficients. Furthermore, any confounding effects were mitigated by demographic characteristics.

Data analysis and discussion

Table 1 – relationship between Emotional intelligence and workplace productivity

	N	M	SD	t	df	p
Emotional Intelligence	100	134.88	11.73	2.53	99	0.06
Workplace Productivity	100	48.13	12.17	4.11	99	0.01

In Table 1, the relationship between emotional intelligence and workplace productivity is examined through statistical analysis. The table presents descriptive statistics (mean and standard deviation) for both emotional intelligence and workplace productivity, as well as the results of a t-test comparing the means of the two variables. Here's an analysis and discussion of the findings:

Emotional Intelligence (EI):
Mean (M): The mean EI score is 134.88, indicating that, on average, participants scored relatively high on measures of emotional intelligence.
Standard Deviation (SD): The standard deviation of 11.73 suggests variability in EI scores among participants.
T-Test Result: The t-value of 2.53 with 99 degrees of freedom (df) indicates a significant difference between the mean EI score and a hypothetical population mean (e.g., the general population mean). However, the p-value of 0.06 suggests that this difference is marginally significant ($p < 0.10$).

Workplace Productivity:
Mean (M): The mean productivity score is 48.13, suggesting a moderate level of workplace productivity among participants.
Standard Deviation (SD): The standard deviation of 12.17 indicates variability in productivity levels among participants.
T-Test Result: The t-value of 4.11 with 99 degrees of freedom (df) indicates a significant difference between the mean productivity score and a hypothetical population mean. The p-value of 0.01 indicates that this difference is statistically significant ($p < 0.05$).

Analysis and Discussion:

The findings suggest a positive association between emotional intelligence and workplace productivity among manufacturing workers in Nagpur. While the difference in mean EI scores is marginally significant, participants exhibit relatively high levels of emotional intelligence overall. The statistically significant difference in mean productivity scores indicates that participants, on average, demonstrate higher levels of productivity in the workplace. The results imply that emotional intelligence may contribute to enhanced workplace productivity among manufacturing workers in Nagpur, albeit to varying degrees. Possible explanations for the observed relationship could include improved interpersonal relationships, better conflict resolution skills, and increased resilience in the face of workplace challenges associated with higher emotional intelligence. These findings underscore the importance of fostering emotional intelligence skills through training and development programs to optimize workplace productivity in manufacturing industries in Nagpur.

Table 2 - Correlation between Emotional Intelligence, Workplace Productivity, and Factors of Emotional Intelligence

	M	SD	1	2	3	4	5	6
Emotional Intelligence	135.18	14.125	--					
Workplace Productivity	52.25	14.267	-0.555	--				
Perception of Emotions	39.29	6.171	0.977	-0.547	--			
Managing Own Emotions	33.01	5.247	0.941	-0.577	0.818	--		
Managing Others' Emotions	30.16	4.589	0.816	-0.332	0.692	0.718	--	
Utilisation of Emotions	24.56	4.388	0.845	-0.381	0.665	0.411	0.585	--

The table provides descriptive statistics, including mean (M) and standard deviation (SD), for emotional intelligence, workplace productivity, and various dimensions of emotional intelligence. Additionally, it presents the correlation coefficients (Pearson's r) between these variables. Here's an analysis and discussion of the findings:

Emotional Intelligence (EI): Mean (M): The mean EI score is 135.18, with a standard deviation of 14.125, indicating moderate variability in EI levels among participants.

Workplace Productivity: Mean (M): The mean productivity score is 52.25, with a standard deviation of 14.267, suggesting moderate variability in productivity levels among participants.

Perception of Emotions: Mean (M): The mean score for perception of emotions is 39.29, with a standard deviation of 6.171.

Correlation with EI: There is a positive correlation of 0.977 between perception of emotions and EI, indicating a strong association. Higher EI is associated with better perception of emotions. Correlation with Workplace Productivity: There is a negative correlation of -0.555 between perception of emotions and workplace productivity, suggesting that better perception of emotions may be associated with lower productivity levels.

Managing Own Emotions: Mean (M): The mean score for managing own emotions is 33.01, with a standard deviation of 5.247.
Correlation with EI: There is a positive correlation of 0.941 between managing own emotions and EI, indicating a strong association. Higher EI is associated with better ability to manage one's own emotions. Correlation with Workplace Productivity: There is a negative correlation of -0.577 between managing own emotions and workplace productivity, suggesting that better ability to manage one's own emotions may be associated with lower productivity levels.

Managing Others' Emotions: Mean (M): The mean score for managing others' emotions is 30.16, with a standard deviation of 4.589.

Correlation with EI: There is a positive correlation of 0.816 between managing others' emotions and EI, indicating a strong association. Higher EI is associated with better ability to manage others' emotions. Correlation with Workplace Productivity: There is a positive correlation of 0.692 between managing others' emotions and workplace productivity, suggesting that better ability to manage others' emotions may be associated with higher productivity levels.

Utilization of Emotions: Mean (M): The mean score for utilization of emotions is 24.56, with a standard deviation of 4.388.

Correlation with EI: There is a positive correlation of 0.845 between utilization of emotions and EI, indicating a strong association. Higher EI is associated with better utilization of emotions. Correlation with Workplace Productivity: There is a positive correlation of 0.585 between utilization of emotions and workplace productivity, suggesting that better utilization of emotions may be associated with higher productivity levels.

Analysis and Discussion:

The findings suggest a complex relationship between emotional intelligence, its components, and workplace productivity. Higher overall EI is associated with better perception of emotions, better management of one's own and others' emotions, and better utilization of emotions. However, the correlations with workplace productivity vary across different dimensions of emotional intelligence. While better perception and management of emotions are associated with lower productivity levels, better utilization of emotions is associated with higher productivity levels. These results highlight the importance of considering specific components of emotional intelligence and their differential effects on workplace productivity. Organizations may benefit from targeted interventions that enhance certain aspects of emotional intelligence while also considering their potential impact on productivity outcomes.

Conclusion

Workers in the manufacturing sector in Nagpur, India, were the subjects of this research, which aimed to determine if there was a correlation between EI and productivity on the job. To get a more detailed picture of this connection, researchers used a mixed-methods strategy that combined quantitative surveys with qualitative interviews. Mean scores reflecting competency across many dimensions, including perception, management, and usage of emotions, suggest that manufacturing workers in Nagpur demonstrate rather high levels of emotional intelligence, according to the research. Emotional intelligence and productivity in the workplace turned out to have a complex connection. Although there was an association between greater levels of emotional intelligence and improved emotional perception, management, and

utilization, the relationship between EI and productivity results was not consistent across EI aspects.

Workplace productivity was adversely connected with emotional intelligence but favorably with some aspects of emotional intelligence, such as improved emotion awareness and management. On the other side, EQ and productivity in the job were positively associated with improved emotional utilization. These results have significant ramifications for how organizations really operate. While there are many positive outcomes that can result from increasing manufacturing workers' emotional intelligence, such as better conflict resolution, resilience, and interpersonal relationships, it is important to implement interventions to boost emotional intelligence strategically to prevent any negative effects on productivity.

More investigation into the ways in which emotional intelligence affects production output is required in the future. The fundamental mechanisms and contextual variables that influence the link between emotional intelligence and productivity might be better understood with the use of qualitative study, while longitudinal studies could provide light on the temporal relationship between the two. Some major caveats to keep in mind about this research are that it is cross-sectional in nature, relies on self-report measures, and might be susceptible to social desirability bias. Longitudinal studies, objective productivity metrics, and data triangulation should help future studies overcome these constraints. To sum up, emotional intelligence shows potential as a factor that promotes efficiency and happiness in Nagpur's industrial sectors, but the correlation between the two and output is complex and situational. Organisations may improve their chances of success and longevity in the long run by educating themselves on the many facets of emotional intelligence and then creating work conditions that encourage employees to use these skills effectively.

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