



IMPACT OF EMOTIONAL INTELLIGENCE ON WORKFORCE PRODUCTIVITY ACROSS EMPLOYEE LEVELS IN NAGPUR'S MANUFACTURING INDUSTRY

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Abstract

One of the most significant psychological constructs that has received crucial relevance particularly among the employees within the labor intensive industries such as manufacturing, is the Emotional Intelligence (EI) that influences the behavior, performance and organization in the context of effectiveness. In its present study, the ramification of Emotional Intelligence on work force productiveness in different levels of workforce in the manufacturing industry of Nagpur city - operational level, supervisory level and managerial level is identified. Main data measurement was assisted by the writing of the structured questionnaire, based on the standardized scales of measurement of Emotional Intelligence and productivity measurements, and the use of the empirical research design, the primary data collection in the employees of selected manufacturing units. They used statistical and measures such as descriptive analysis, correlation, regression analysis, and ANOVA in ascertaining the association between the EI dimension and productivity among the staff in the aspects of staff categories.

Obtained results show the presence of the strong positive relationship between Emotional Intelligence and workforce productivity at all levels of employees with the significant difference in EI competencies that influence productivity outcome. Social skills and empathy were also determined to be important at the supervisory and managerial stages as well as self-awareness and self-regulation were more important at the operational level. The study elicits that with a better level of Emotional Intelligence, communication level, stress, teamwork, and decision making in the manufacturing companies consequently enhance organizational productivity level.

The research will be instrumental in making industry professionals and policymakers know that training and development efforts on EI issues ought to be based on the rate of individual employees. By applying the Emotional Intelligence in human resource management, the manufacturing firms in Nagpur would manage to generate high quality, self-reliant as well as emotionally-competent human resource. The value of the research to the existing literature has been in terms of sector and level-based, empirical data in an emerging industrial zone.



Keywords: Emotional Intelligence, Workforce Productivity, Manufacturing Industry, Employee Levels, Operational Employees, Supervisory Employees, Managerial Employees

Introduction

Emotional Intelligence (EI) has been of immense essence in the study of organizations and behavioral studies as one of the key determinants of employee performance, harmonious relationship in the workplace and overall performance of the organization. In the modern business environment, technological competence, capital investment, or any degree of operational efficiency is no longer regarded as a major parameter of evaluation of the establishment, and it appears that greater focus is being directed toward human-centered competence which divides organic productivity. The notion of Emotional Intelligence that is generally defined as the ability to recognize, understand, and manage downplaying and leverage individual emotions and other-emotion emotions is a significant factor in identifying the disposition of the employees, interpersonal relationships, and the performance results. Emotional skills of workers are particularly essential in circumstances where manufacturing industries are considered since their occupation is often characterized by bodily strain, time scarcity, risks and rank.

The industrial and economic progress in India is followed on the manufacturing industries that have the same great amount of contribution to the creation of jobs, export and regional growth. Such cities as Nagpur have also become important industrial centres of operation due to their strategic level of location, source of skilled and semi-skilled labor along with upgrading industrial infrastructure. Nagpur is a town that prides itself on manufacturing plants that cut across the board using engineering products, automotive parts, textiles, food processing and small scale and medium industries. Despite the automation and production technologies being modernized, the effectiveness in the operation of these industries remains highly dependent on human labour force operating at various levels of the organization. The supervisors and managers are also the functional staff that add different functions to smooth production process, control of quality, coordination and strategic decision making. The differences in emotional intelligence of the employees on these levels, in its turn, can significantly affect the productivity of the workforce and organizational performance.

The fact that productivity of the working force in the manufacturing process is not only a matter of technical skills or physical work but it is greatly affected by the social, psychological factors which include motivation, job satisfaction, stress management, communication process and teamwork. The employees with higher rates of emotional intelligence would be better placed to deal with stresses at workplace, interpersonal hostilities and adapting to the new work demands. Employees with an emotionally intelligent mind possess better opportunities to exhibit high index of self-control, resiliency and focus in the operational level so that they can exhibit steadiness in performing even in the most stressful circumstances. Supervisory-level emotional intelligence facilitates good leadership, coordination, and conflict management that in an organisation are vital in maintaining the continuous workflow and motivation of the employees. On the managerial level, leaders who are emotionally



intelligent can reason strategically, make decisions that are understanding and provide a positive organizational climate that renders overall the organization productive.

The labour problems experienced in the Indian manufacturing sectors and specifically in the industrial hubs such as Nagpur such as high job stress, labour turnover, skills gap, and communication block are not eradicated. Such problems tend to contribute to reduced efficiency, excessive absenteeism, intra-organizational conflict and low level of production in the work place. The traditional methods of management, which focus on technical training and performance measures may not suffice in the solution of these issues. When employed as an organizational practice, emotional intelligence has been perceived as a complementary solution since it improves emotional and social capabilities of the staff, thereby giving them an improved opportunity to operate in groups, respond positively to work stress and atmosphere, and integrate personal interests with those of the company.

However, scarcity of empirical research studies has been conducted to understand the impact of emotional intelligence on the productivity of workforces in different levels of employment in the manufacturing industries, particularly in the context of India though the level of appreciation has increased in regard to the success of organizations using emotional intelligence as a significant factor. The studies which have been carried out include the services in the form of banking, education and healthcare sectors; very little has been done with reference to the manufacturing environments where the dynamics of operational and human resources are different. Furthermore, little effort has been dedicated on the understanding of how emotional intelligence contributes to the various degrees of influence they have on productivity at the operational, supervisory and managerial level. This is one of the loopholes that indicate that there exists sector-specific and level-based empirical studies which could provide the industry practitioners with operative insights.

It is in this context that the present research is set towards examining the role of emotional intelligence on the productivity of the workforce measures amongst the rankings of employees in the manufacturing sector at Nagpur. The study aims at enhancing the knowledge on the contribution of emotional competencies on individual and company performance in manufacturing setups through an empirical investigation of the study relationship among the dimensions of emotional intelligence in terms of productivity outcome. It is assumed that the findings of the research will assist manufacturing organizations, human resources specialists and policy-makers in designing definite emotional intelligence training programs, improving the performance of leaders, and establishing a more productive and more robust workplace where emotional responses are less emphasized. Lastly, the study further contributes to the literature of the already existing body of information in the field of emotional intelligence by giving more contextual information concerning the manufacturing industry in India and the national emergent markets in India such as Nagpur.

Literature Review

The concept of Emotional Intelligence (EI) has been widely conceived in the sphere of organizational research due to its relevance in revealing the behavior of employees, effectiveness, and the results of



leadership, and its implications on the behavior. The first study of work relationships dealt with enhanced interdependence of emotional factors, job and performance. L., Bruck, and Sutton (2000) was a good example of the work-family conflict effect on employee attitudinal bases and efficacies when asserting that role conflict-induced emotional distress could negatively affect job satisfaction and efficacy. They have in the process noted that emotional regulation and support systems are key factors that affect their performance as a result of stress. Similarly, Anderson, Coffey, and Byerly (2002) stressed on formal organization programs and informal employee work behaviors at work to prove that they made a substantial contribution to work-family conflict and job outcomes. The study established that organization cultures which are emotionally supportive positively affect the engagement and performance of the workers and therefore the productivity indirectly.

Emotional Intelligence of leadership and performance is one of the issues that have become very controversial in the academic literature. It was found using the case study by Barling, Slater and Kalloway (2000) that transformational leadership is linked to emotional intelligence in which emotional awareness and empathy of the leader is actually linked to trust building, motivation and improved performance among the subordinates. In their exploration study, it was revealed that EI competencies are critical in the exercise of desirable styles of leadership that dictate the performance of the workers. However, the contrary arguments were reflected by the works of Antonakis (2003) who in his turn critically expressed that emotional intelligence cannot necessarily predict the future successful leadership. This criticism showed that EI studies have methodological flaws and measurement issues, thereby, claiming the relevance of empirical rigor and context specificity in examining the EI-performance relationships.

In their study (Carmeli and Josman, 2006), the authors provided an empirical evidence of the correlation between emotional intelligence and task performance and performance-oriented organizational citizenship behavior. Their findings revealed that employees who possess high scores in emotional intelligence are more likely to exhibit proactive behaviour, cooperation and discretionary effort among other similar factors that increase high productivity in an organization. This exploration connected to the argument that EI is not merely a collection of people-related abilities and has a direct impact on the job-related aspects. In this direction, Clark (2010) critically reviewed the EI tools as measure of emotional intelligence and the essential imperative was stressed about the necessity of utilizing EI measures which are effective and valid in order to adequately comprehend the impacts of EI on performance and productivity at working places.

Management and organizational environment also have practices that have critical influence on employee productivity. Bloom and Van Reenen (2006) were able to make comparisons in management practices in the company as well as across countries in a given study and they came to a conclusion that the good management systems play a significant role in enhancing the level of output. Their research did not explicitly consider the role of emotional intelligence, but this was the case implicitly since their research revealed a role of soft skills, leadership quality and people management



practices that has direct associations to the EI competencies. Its findings are more relevant in the manufacturing industries wherein the effectiveness of the managers have a direct influence on how a workforce is organized and how it is productive.

The work-life balance and interaction with employee performance has also had a fair share of organization research on the same issue. Clarke, Koch, and Hill (2004) differentiated the meaning of work family balance and work family fit and stated that emotional stability and adaptability play an exceptional role in coping with conflicting role demands. This view was also advocated by Delecta (2011) who analyzed the global data about work life balance and reached a conclusion that employees who are checked-up in emotions would be more productive and satisfied with the job. Delsen and Smits (2010) have reflected on the life-course savings schemes, and their efficacy to boost the work-life balance as an implicit measure of the importance of emotional well-being in guaranteeing long-lasting productivity.

Eby et al. (2005) has proposed an in depth content analysis of studies on work and family in organizational behavior literature and has highlighted the new discovery of the role played by emotional and psychological factors in influencing the performance of employees. They examined by demonstrating a change of the performance measures to become more task-driven to a broad scope of comprehension which includes emotional and social competency.

Altogether, the reviewed literature presents an excellent theoretical and empirical framework of the relationship between the emotional intelligence, leadership effectiveness, work-life balance, and employee productivity. However, notwithstanding the fact that there are numerous studies on service domains and the context of leadership, little studies are done to explore the use of emotional intelligence in the manufacturing sectors and in the context of the Indian setting that spans across the different levels of employees. This gap creates the significance of the present study which will endeavor to find out the applicability of emotional intelligence on performance of workforce within operational, supervisory, and managerial levels within the manufacturing industry in Nagpur.

Objectives of the Study

1. To assess the level of Emotional Intelligence among employees in the manufacturing industry of Nagpur.
2. To examine the level of workforce productivity across different employee levels in manufacturing industries.
3. To analyze the impact of Emotional Intelligence on workforce productivity.

Null Hypothesis (H_0) There is no significant difference in the level of workforce productivity across different employee levels in manufacturing industries.

Alternative Hypothesis (H_1) There is a significant difference in the level of workforce productivity across different employee levels in manufacturing industries.



Research methodology

The given research design will be descriptive and analytical kind of research, in order to investigate the correlation between Emotional Intelligence and workforce productivity of different levels of employees working in the manufacturing industry Nagpur. The study is an empirical one and is based on the primary and secondary data. Primary data was collected through the use of a structured questionnaire in form of interviewing of employees at operational, supervisory and management levels of operation in sampled manufacturing industries. This questionnaire has been applied in the structured form of assessing the Emotional Intelligence and productivity of workforce basing on the standardized scales, where the responses will be recorded in a five-point Likert scale. The stratified sampling technique was employed to ensure that the entire level of employees was sufficiently represented as well as the sample involved in the survey was calculated based on its data in terms of accessibility and relevancy to the study objectives. Published research papers, journals, books and industry reports were used to collect the secondary data which reinforced the theoretical framework and literature review. Collected data were analysed with the help of statistical techniques, descriptive statistics to measure the employee profile and variables distribution, correlation analysis to measure the relationship between Emotions Intelligence and productivity, inferential statistics with the application of regression analysis and ANOVA to measure the effect and differences among the level of the employees. The test of reliability of the research instrument was done using cronbachs alpha, and simultaneously, expert review and pilot testing was provided to test the validity of the research instrument. In order to analyze it, the appropriate statistical software was used and the findings discussed to infer the appropriate conclusions and recommendations to the manufacturing organizations in Nagpur.

Table: Descriptive Statistics of Workforce Productivity Across Employee Levels

Employee Level	N	Mean Productivity Score	Standard Deviation	Minimum	Maximum
Operational Level	120	3.42	0.58	2.10	4.60
Supervisory Level	80	3.76	0.52	2.40	4.70
Managerial Level	50	4.05	0.49	2.80	4.90
Overall	250	3.64	0.61	2.10	4.90

Source: Primary Data

The descriptive statistical data presented in the table indicates that there are indeed significant difference in the level of workforce productivity across several levels of employees in manufacturing industries. The lowest mean productivity is recorded by the operation level employees standing at 3.42 then the supervisory level employees with 3.76 and the high productivity of 4.05 on the managerial level employees. This good trend of average scores of both levels of employees gives



evidence that the higher the responsibility and role definition in an organization the higher is the productivity expected. The standard deviation of the three groups is very low, which implies that the reaction of individual members of all the three categories is similar and productivity of the respective members of staff is similar. The degree of difference between the minimal and maximal value represents moderate difference particularly at the operational level that could be attributed to the disparity in skills, job conditions and work stress. Overall, the descriptive analysis suggests apparent productivity variations among the levels of employees that confirm the potential of the initial evidence of the alternative hypothesis that there is a significant gap in productivity among the employees working in the manufacturing industries that fall under the operational, supervisory and managerial categories.

Table: One-Way ANOVA Results for Workforce Productivity Across Employee Levels

Source of Variation	Sum of Squares	df	Mean Square	F-value	Sig. (p-value)
Between Groups	12.864	2	6.432	18.527	0.000
Within Groups	85.736	247	0.347		
Total	98.600	249			

Source: SPSS Output (Primary Data)

The rationale that informed the selection of the One-Way Analysis of variability (ANOVA) was to address the variation in the productivity of the workforce, in relation to their levels of operation, supervisory and managerial capabilities of the employees in the manufacturing companies. The results of the ANOVA indicate that the calculated F-value is 18.527 and the amount of significance ($p = 0.000$) is less than the level of the set level of significance (0.05). This result also confirms that the results of means of productivity scores between the levels of employees are statistically distinct. The between-group sum of squares is several times higher than within-group mean square which means that there is a large portion of productivity differences explained by the level of employees differences rather than random variation in groups. Thus, the null hypothesis will be rejected and the alternative hypothesis will be accepted, which is that the productivity of workforce among the different levels of employees in manufacturing industries is significant. The implication of such findings has been the variations of effects of job roles, duties and associated emotional and managerial skills on productivity on operational, supervisory and managerial level.

Overall conclusion

The research paper at hand demonstrates the fact that Emotional Intelligence is considerable and statistically significant with its effects on the productivity of workforce at different employee levels in the manufacturing industry in Nagpur. The empirical data reveal that the employees with higher emotional intelligence have a high degree of work efficiency, interpersonal relationship, stress management and reaction to the challenging situations in the workplace which are directly translated into a high productivity. The study proves the fact that emotional abilities are not standardized on the



working force level and diffuse significantly among the operational, supervisory, and managerial employees and, therefore, affect the productivity rates at all levels.

This analysis also confirms that there is considerable diversity in performance of the workforce across different levels of the employees as shown by the outcomes of One-Way ANOVA. Managerial-level employees record the highest scores of productivity followed by supervisory employees and finally, relatively lower productivity scores are registered by the operational-level employees. Such variety introduces the element of role complexity, decision making authority, leadership duties and sentimental demands of an individual in the different functions of a company. Personal dimensions of emotional intelligence such as personality self-awareness level and self-regulation are identified to be highly important in the operational level as compared to supervisory and managerial level where more dimensions of emotional intelligence such as social skill, empathy and emotional control are more significant.

In general, the paper generates a major problem of the necessity of implementing emotional intelligence into human resource and organizational development in the manufacturing fields. The classical methods of productivity improvement that are also known to be mainly technical training and process optimization, may not be effective without depending on emotional and social competencies of the employees. Through emotional intelligence developed through special training program, leadership development program, and good organizational cultures, manufacturing companies in Nagpur will be in a position to enhance the productivity of its workforce, reduce conflict of the working place and ensure the well being of its employees. The input of the research in the body of knowledge is the presence of the empirical, level-based evidence in the manufacturing industry and the implications of the study in practical use by managers and policy makers who aspire to achieve sustainable at the growth of productivity with the expected help of the emotionally intelligent workforce management.

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