

ASSESSING THE EFFECTIVENESS OF EMPLOYEE WELFARE MEASURES AT ELECTROSTEEL CASTINGS LTD.

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ABSTRACT

This study explores employee welfare practices at Electrosteel Casting Public Limited, Rachagunneri, focusing on the effectiveness of existing welfare measures and their impact on employee satisfaction and productivity. The research utilizes a structured questionnaire and interviews to assess facilities such as health, safety, canteen services, and recreational amenities. Findings suggest that while basic welfare provisions are in place, there is a need for enhanced initiatives in areas such as healthcare access and workplace safety training. The study concludes that improved welfare measures can significantly contribute to increased employee morale, reduced absenteeism, and higher overall efficiency, recommending management to prioritize employee-centric policies for sustainable organizational growth.

Keywords: Employee Welfare, Job Satisfaction, Workplace Safety, Electrosteel Casting

INTRODUCTION

Electrosteel Castings Limited is a leading Indian manufacturer of ductile iron pipes and fittings, playing a vital role in water and sewage infrastructure development. Established in 1955 and headquartered in Kolkata, the company operates multiple state-of-the-art manufacturing facilities across India. It exports to over 110 countries and holds international certifications like KITEMARK and NSF. Electrosteel contributes significantly to both domestic and global water management solutions. Its commitment to quality and innovation has made it a trusted name in the industry for nearly seven decades.

Electrosteel Castings Limited plays a crucial role in strengthening water supply and sewage systems in India and globally. By producing durable and high-performance ductile iron pipes, it supports essential infrastructure projects that ensure clean water access and effective waste management. The company contributes to public health, urban development, and environmental sustainability. With a strong export presence, it enhances India's manufacturing reputation worldwide. Its long-standing expertise and innovation make it a vital player in the water infrastructure industry.

The ductile iron pipe industry plays a vital role in economic development by supporting large-scale infrastructure projects, especially in water supply and sanitation. It generates employment across manufacturing, logistics, and engineering sectors, while also encouraging domestic production and exports. The industry's contribution to urban development and rural connectivity drives real estate, agriculture, and industrial growth. By ensuring efficient resource distribution, it enhances national productivity. Additionally, it attracts both public and private investment, boosting GDP and long-term economic stability.

The ductile iron pipe industry plays a key role in improving public health by enabling access to clean drinking water and effective sewage systems. It supports the development of essential civic infrastructure, particularly in urban and rural areas. By enhancing water security, the industry contributes to better hygiene, reduced disease, and overall quality of life. It also promotes social equity by reaching underserved communities. Furthermore, it generates local employment and supports community development through infrastructure-led growth.

Employee welfare encompasses a broad range of services, benefits, and facilities provided by employers to ensure the well-being, safety, and satisfaction of their workforce. It goes beyond mere compliance with legal requirements, aiming to create a positive work environment that enhances employees' quality of life both within and outside the workplace.

REVIEW OF LITERATURE

Davis, A., & Gibson, L. (1994) This study explores frameworks for designing effective employee welfare provisions. It emphasizes the alignment between welfare policies and organizational goals. The authors argue that tailored welfare strategies improve employee satisfaction. A proactive approach in welfare design leads to reduced turnover and absenteeism. Their research highlights the need for continuous evaluation of welfare systems. This serves as a foundation for understanding welfare as a strategic tool in HRM.

Dickson, T. J., & Huyton, J. (2008) This article analyzes employee welfare in the context of customer service and tourism. Specifically focused on Australian snowsports, it links welfare to service quality. The authors suggest that employee well-being is crucial for guest satisfaction. They advocate for seasonal welfare programs tailored to tourism demands. The research underlines the impact of job conditions on employee morale. It's useful for understanding sector-specific welfare challenges and solutions. Venugopal, D. et al. (2011) This study investigates employee welfare practices in Chittor's industrial sector. It categorizes welfare activities into statutory and non-statutory provisions. The authors assess employee perceptions of welfare effectiveness. Findings show welfare positively influences productivity and work culture. It emphasizes the role of management in implementing welfare schemes. This regional study provides insights into localized welfare challenges.

Yamwamu, M. et al. (2012) Focused on Kenya's National Police Service, this study explores welfare impacts. It connects employee welfare with operational performance and service delivery. The research identifies gaps in healthcare, housing, and stress management. Welfare services are shown to affect both motivation and efficiency. The study recommends policy reforms to improve welfare access. It's relevant for understanding welfare in government and security sectors. Gallie, D. et al. (2012) This paper examines how teamwork and skill development relate to welfare. It uses data from British industries to draw its conclusions. Findings suggest that welfare is enhanced in collaborative work environments. Skill development is both a welfare initiative and productivity booster. The study supports the idea that welfare includes professional growth. It broadens the scope of welfare beyond material benefits.

Suratkumari, M., & Bindurani, R. S. (2013) The authors study welfare measures in South-Central Railway. They analyze both statutory and voluntary welfare practices. The research highlights

employee satisfaction with medical and housing facilities. It stresses the importance of feedback in welfare planning. Findings indicate a strong link between welfare and job performance. It serves as a practical example of public sector welfare execution.

Reshma, S., & Basavraj, J. M. (2013) This study focuses on welfare measures in the mining industry. It examines conditions at Donimalai Iron Ore Mine in Karnataka. The research highlights issues like health risks and safety standards. Employee feedback indicates a need for improved non-statutory benefits. The study recommends better recreational and health services. It contributes insights into welfare in hazardous work environments. Teti, E., & Andriotto, M. (2013) This article investigates how welfare schemes affect various professional profiles. It compares effectiveness across job types and employee roles. The study finds significant differences based on work nature and expectations. Customized welfare schemes are shown to be more effective. It stresses the need for individualized welfare planning. This research is key for understanding role-based welfare needs.

Lagat, A. C. et al. (2014) The study discusses welfare and performance in a university setting. Focused on UASU at Egerton University, Kenya, it links welfare to union activities. It finds that welfare improves staff motivation and institutional loyalty. There is a call for more participatory welfare policy development. It shows welfare's role in academic institutions and knowledge work. This is relevant for understanding non-industrial welfare contexts.

Odeku, O. F., & Odeku, K. O. (2014) This paper presents a legal and ethical perspective on employee welfare. It emphasizes welfare as a fundamental workplace right. The authors critique inadequate policies in African workplaces. They recommend integrated approaches combining law, ethics, and HRM. Employee welfare is positioned as crucial for social justice and equity. It's important for framing welfare in a human rights context. Ramana, T. V., & Reddy, E. L. (2015) The study analyzes welfare measures in Indian Railways, South Central zone. It categorizes schemes into medical, housing, and recreational welfare. Findings show high satisfaction in medical care but gaps in housing. Employee suggestions are used to recommend policy improvements. It shows how public sector enterprises implement diverse welfare schemes. The study helps understand structured welfare in government sectors.

A significant research gap exists in the area of employee welfare regarding a lack of studies exploring the nuanced impact of specific welfare programs on different employee demographics, particularly considering factors like age, gender, work location, and job role, and how these variations might influence employee satisfaction and engagement with welfare initiatives; additionally, more research is needed to quantify the precise return on investment (ROI) of various employee welfare programs on key organizational metrics like productivity and retention.

RESEARCH METHODOLOGY

Welfare in the organization implies the condition of benefits to the employees in the work environment etc. The need for providing such services and facilities, it is shows the responsibilities of organization Welfare implies that providing better work conditions such as Drinking water facilities, canteen, restroom, health care etc.,

The scope of this study covers the operational, economic, and social impact of Electrosteel Castings Limited within the ductile iron pipe industry. It focuses on the company's role in infrastructure development, especially in water supply and sanitation sectors. The study also explores its contributions to employment, exports, and sustainable practices. Additionally, it examines the industry's influence on public health and urbanization. This analysis provides insights into future growth opportunities, challenges, and policy implications for continued industry advancement.

Objectives

- To assess the current state of employee welfare programs within a specific organization or industry.
- To determine the relationship between employee welfare initiatives and employee morale.
- To identify the most effective employee welfare strategies for improving employee retention.
- To analyze the level of employee satisfaction with existing welfare programs.
- To determine the impact of welfare programs on employee productivity.

Research Design

A descriptive research design will be used to analyze the performance appraisal system. Both qualitative and quantitative methods will be incorporated to ensure a comprehensive study.

500 Employees of Electro Steel Casting Public Limited. 120 employees (including junior staff, mid-level managers, and HR personnel). Simple random sampling to ensure representation from different departments. Structured questionnaires will be distributed to employees across different levels. HR managers and supervisors will be interviewed to understand the appraisal process. Workplace observations will be conducted to understand how performance evaluations are carried out. Company records on past performance appraisals. HR policies and reports related to performance management. Research papers, articles, and case studies on performance appraisal best practices.

Statistical tools like percentages, mean, and standard deviation will be used for survey data analysis. Thematic analysis will be used to interpret interview and observation findings. Excel for data analysis.

DATA ANALYSIS AND INTERPRETATION

Have you satisfied with care taken by the organization during night shift.

Taking care of employees working night shifts is essential for several reasons. Firstly, it's crucial for their health and well-being. Night shift work can disrupt the body's natural sleep-wake cycle, leading to sleep disorders, fatigue, and increased risk of chronic health conditions like cardiovascular disease and obesity. Providing support, such as access to proper lighting, comfortable break areas, and nutritious food options, can mitigate these risks and promote better health outcomes.

Above table 1 indicates that the majority of respondents expressed a positive level of satisfaction. Specifically, 50% (60 respondents) reported being "Satisfied," while 8% (10 respondents) stated they were "Highly satisfied," reflecting an overall favorable perception among most participants. Meanwhile, 25% (30 respondents) remained neutral, suggesting that a significant portion neither expressed strong satisfaction nor dissatisfaction.

Table 1 Distribution of respondents based on the night shifts of the employees

OPINION	RESPONDENTS	PERCENTAGE
Highly satisfied	10	8
Satisfied	60	50
Neutral	30	25
Dis - satisfied	15	12
Highly dis- satisfied	5	5
TOTAL	120	100

Source: Primary Data

On the other hand, 12% (15 respondents) indicated they were "Dis-satisfied," and 5% (5 respondents) were "Highly dis-satisfied." Although these negative responses represent a smaller segment, they highlight areas where improvements could be made. Overall, the data shows a predominantly positive response, with opportunities to enhance satisfaction further by addressing the concerns of the less satisfied group.



Figure 1 Night shifts of the employees

Above figure illustrates the distribution of respondents' satisfaction levels. The highest percentage of responses, at 50%, falls under the "Satisfied" category, indicating a generally positive sentiment among participants. "Neutral" follows with 25%, suggesting that a considerable portion of respondents neither agreed nor disagreed with the satisfaction criteria. Only 8% of respondents reported being "Highly satisfied," which, while positive, is notably lower than the "Satisfied" group. On the negative end, 12% were "Dis-satisfied" and 5% "Highly dis-satisfied," reflecting a smaller yet significant group with concerns. The overall trend shows a peak at "Satisfied," with a gradual decline toward both extremes, highlighting a central tendency toward moderate satisfaction.

How have you satisfied with ventilation, lighting and spittoons services

Ventilation, lighting, and spittoons play crucial roles in maintaining a healthy and productive environment within an organization. Ventilation ensures that fresh air circulates throughout the space, reducing the concentration of airborne pollutants, Odors, and pathogens. Effective lighting is essential for creating a safe and comfortable workspace. Spittoons, though less common in modern workplaces, remain significant for maintaining cleanliness and hygiene.

Table 2 Opinion of respondent's ventilation, lighting and spittoons services

OPINION	RESPONDENTS	PERCENTAGE
Highly satisfied	20	16.67
Satisfied	50	41.67
Neutral	30	25.00
Dis- satisfied	15	12.50
Highly dis -satisfied	5	4.16
TOTAL	120	100

Source: Primary Data

Above table shows that, majority of respondents, 50 out of 120 (41.67%), reported being "Satisfied" with the subject in question. A significant portion, 30 respondents (25%), were "Neutral," indicating a lack of strong feelings either for or against. However, 20 respondents (16.67%) expressed being "Highly Satisfied," and 5 respondents (4.16%) were "Highly Dissatisfied." On the other hand, 15 respondents (12.5%) reported being "Dissatisfied," suggesting some degree of dissatisfaction. In total, the survey shows that most respondents are either satisfied or neutral, with a relatively small percentage indicating dissatisfaction.



Figure 2 Opinion of respondents regarding services

From the above figure, the majority of respondents fall under the "Satisfied" category (41.67%), indicating a generally positive perception. This is followed by a significant portion who are "Neutral" (25%), suggesting room for improvement. Only a small percentage are "Dissatisfied" (12.5%) or "Highly dissatisfied" (4.16%), showing that negative experiences are relatively limited. Overall, the trend highlights a favourable satisfaction level with some scope for enhancement.

How far are you with satisfied cafeteria facilities provided by the company?

Cafeteria facilities in an organization hold a crucial significance beyond merely serving meals. They act as social hubs, fostering connections among employees from diverse backgrounds and departments. This communal space cultivates a sense of belonging and camaraderie, ultimately enhancing workplace culture and morale.

Table 3 Opinion of respondents regarding cafeteria facilities

OPNION	RESPONDENTS	PERCENTAGE
Highly satisfised	25	20.83
Satisfied	48	40.00
Neutral	22	18.33
Dis- satisfied	15	12.50
Highly dis -satisfied	10	8.34
Total	120	100

Source: Primary Data

From the above table, the majority of respondents (40%) reported being "Satisfied," indicating a generally positive experience. A notable portion, 20.83%, expressed being "Highly satisfied," further reinforcing the overall satisfaction trend. However, 18.33% of respondents remained "Neutral," suggesting that while they did not have a negative experience, they were not particularly impressed either. On the other hand, 12.5% of respondents indicated dissatisfaction, and an additional 8.34% were highly dissatisfied. This shows that while most participants had a favorable opinion, a significant minority experienced issues that may need to be addressed to improve overall satisfaction and reduce negative feedback.



Figure 3 Cafeteria facilities

Figure 3 illustrates the updated levels of respondent satisfaction, showing that the highest percentage (40%) falls under the "Satisfied" category, indicating a generally positive sentiment among participants. "Highly satisfied" responses follow at 20.83%, reinforcing the favourable trend. However, there is a noticeable dip as we move toward the "Neutral" category at 18.33%, suggesting that a portion of respondents had neither positive nor negative experiences. The graph also shows a gradual rise in dissatisfaction, with 12.5%

being "Dissatisfied" and 8.34% "Highly dissatisfied." This indicates that while overall satisfaction is strong, there remains a significant minority who are less content, highlighting areas that could benefit from improvement.

How have you satisfied with quality of food and hygiene facility in canteen?

Quality of food and hygiene in canteen:

The quality of food and hygiene standards in the canteen of an organization are paramount for employee satisfaction and well-being. A commitment to serving high-quality, nutritious meals reflects the organization's dedication to the health and happiness of its workforce.

Table 4 Opinion of respondents regarding Quality of food in canteen

OPINION	RESPONDENTS	PERCENTAGE
Highly satisfised	30	25.00
Satisfied	42	35.00
Neutral	20	16.67
Dis- satisfied	18	15.00
Highly dis -satisfied	10	8.33
Total	120	100

Source: Primary Data

Table 4 states that, the majority of respondents (35%) reported being "Satisfied," indicating a generally favorable experience. Additionally, 25% of respondents expressed being "Highly satisfied," reinforcing the overall positive perception. However, a significant portion of participants remained "Neutral" (16.67%), suggesting a level of indifference or unmet expectations. Notably, a combined 23.33% of respondents reported dissatisfaction, with 15% being "Dissatisfied" and 8.33% "Highly dissatisfied." This indicates that while most respondents are content, there is a considerable minority expressing concerns or negative experiences, highlighting the need for improvements to boost overall satisfaction levels.



Figure 4 Quality of food in canteen provided by the organization

Figure 4 illustrates the distribution of respondents across various satisfaction levels. The highest number of respondents, over 40, reported being "Satisfied," indicating a generally positive sentiment. This is followed by approximately 30 respondents who are "Highly

satisfied," showing a strong level of contentment among a significant portion of the group. However, the number of respondents sharply decreases as satisfaction levels decline. Only around 20 respondents identified as "Neutral," and even fewer—about 18—reported being "Dis-satisfied." The lowest number of respondents, approximately 10, fell into the "Highly dis-satisfied" category. The graph suggests that the majority of respondents lean towards satisfaction, with relatively few expressing dissatisfactions, highlighting a generally favorable perception among the surveyed group.

How do you satisfy with medical facilities provided by the organization?

Medical facilities play a crucial role in any organization by safeguarding employee health and well-being, ensuring compliance with legal regulations, enhancing productivity, and fostering a positive work environment.

Table 5 Opinion of respondents regarding medical facilities

OPINION	RESPONDENTS	PERCENTAGE
Highly satisfised	35	29
Satisfied	40	33
Neutral	18	15
Dis- satisfied	15	13
Highly dis -satisfied	12	10
TOTAL	120	100

Source: Primary Data

Table 5 presents the distribution of respondent satisfaction levels, with a total of 120 individuals surveyed. The majority of respondents, 40 individuals or 33%, reported being "Satisfied," suggesting a generally positive outlook. This is followed by 35 respondents (29%) who are "Highly satisfied," indicating that a significant portion of the group feels very positively about their experience. A smaller group, 18 respondents (15%), expressed a "Neutral" opinion, showing neither satisfaction nor dissatisfaction. Meanwhile, 15 respondents (13%) reported being "Dis-satisfied," and 12 respondents (10%) were "Highly dis-satisfied," reflecting a smaller yet notable level of discontent. The data suggests that most respondents lean toward a positive satisfaction level, with a moderate portion expressing dissatisfaction.



Figure 5 Medical Facilities

Above figure depicts the respondents satisfaction levels shows a clear trend in the distribution of opinions. The highest number of respondents, 40, fall under the "Satisfied" category, indicating

that a substantial portion of individuals had a generally positive experience. This is closely followed by 35 respondents who are "Highly satisfied," further reinforcing the overall favorable sentiment among the group. However, there is a noticeable drop in the number of respondents as satisfaction declines. The "Neutral" category includes 18 respondents, suggesting a moderate level of indifference. The lower end of the satisfaction scale—"Dis-satisfied" and "Highly dissatisfied"—comprises 15 and 12 respondents respectively, showing that a smaller portion of the participants experienced dissatisfaction. Overall, the graph highlights that the majority of respondents hold a positive outlook, with only a minority expressing discontent.

ANALYSIS OF FINDINGS

The majority of respondents (58%) were either satisfied or highly satisfied, indicating a generally positive perception. The majority of respondents (58.34%) were either satisfied or highly satisfied, reflecting an overall positive level of satisfaction. The majority of respondents (60.83%) were either satisfied or highly satisfied, indicating a predominantly positive overall opinion. The majority of respondents (60%) expressed satisfaction with the service, with 25% highly satisfied and 35% satisfied, while only 23.33% reported dissatisfaction. The majority of respondents (62%) reported positive experiences, with 29% highly satisfied and 33% satisfied, while only 23% expressed dissatisfaction.

RECOMMENDATIONS

Recommendations to Managers

Managers at Electrosteel Castings Limited should focus on driving innovation by investing in sustainable technologies and expanding the product range. Strengthening the company's presence in emerging markets through strategic partnerships can open new growth avenues. Enhancing operational efficiency through automation and digitalization will improve cost-effectiveness. Building long-term customer relationships with customized solutions will foster loyalty. Finally, investing in employee training and development will ensure a skilled workforce capable of maintaining the company's competitive edge.

Recommendations to Policy Makers

Policy makers at Electrosteel Castings Limited should focus on supporting sustainable manufacturing practices through government incentives for eco-friendly technologies. Encouraging policies that promote the use of locally sourced materials can reduce dependency on imports and strengthen supply chains. They should also advocate for favorable export policies to enhance the company's global competitiveness. Collaboration with research institutions for innovation in water infrastructure technologies can further elevate product offerings. Lastly, implementing robust regulatory frameworks will ensure compliance and maintain high industry standards.

Recommendations for Industry Development

For industry development, it is crucial to focus on expanding the adoption of smart and sustainable infrastructure solutions, particularly in water and sewage management. Industry players should invest in research and development for eco-friendly materials and advanced manufacturing

techniques. Collaboration between private companies and government bodies can streamline regulations and foster a supportive environment for innovation. Strengthening global supply chains and increasing exports will drive growth in new international markets. Finally, adopting automation and digital technologies will enhance operational efficiency and reduce costs across the sector.

Recommendations for Scholarly Contribution

Electrosteel Castings Limited should collaborate with academic institutions to conduct research on advanced materials and sustainable manufacturing practices. Publishing white papers and case studies on the company's innovations in ductile iron pipe technology and infrastructure development will contribute to industry knowledge. Supporting industry conferences and symposiums will provide a platform for sharing insights and fostering partnerships. Additionally, promoting employee involvement in academic research and offering internships can help bridge the gap between academia and industry. Such contributions will elevate the company's reputation as a thought leader in the sector.

Scope for Further Study

Further study could explore the potential for Electrosteel Castings Limited to expand into new product segments, such as smart infrastructure solutions and IoT-enabled water management systems. Research on the company's sustainability practices, particularly in reducing its environmental footprint, can provide insights for continuous improvement. Additionally, investigating the impact of global supply chain dynamics and trade policies on the company's export performance can inform future strategies. Studies on technological innovations in manufacturing processes and their potential cost savings could also offer valuable findings for the industry's growth.

Limitations

Despite its strong market presence, Electrosteel Castings Limited faces limitations such as dependency on raw material imports, which makes it vulnerable to supply chain disruptions. The company also competes with larger global players, which could limit its market share. Regulatory challenges and evolving standards in different countries may require significant adjustments in operations. Additionally, while the company is progressing in sustainability, there is still room to further reduce its environmental impact. Limited brand recognition in some international markets could also affect its expansion potential.

CONCLUSION

In conclusion, Electrosteel Castings Limited plays a crucial role in India's infrastructure development, particularly in water supply and sanitation. With its strong domestic and international presence, the company has contributed significantly to global water management solutions. However, to maintain and enhance its competitive edge, it must address challenges like supply chain dependency, regulatory compliance, and environmental sustainability. By focusing on innovation, operational efficiency, and global market expansion, Electrosteel Castings can continue to grow and solidify its leadership in the ductile iron pipe industry.

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