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Role of Employee Training in Enhancing Organizational Efficiency: A Study of the Cement Industry

N .K.Thakre[1], Aarti S Kulkarni[2], Jyotirmoy Banerjee[3], Prof (Dr.) Rajesh Kr. Yadav[4], Dr. Parag Jawarkar[5], Dr. Ajay Kumar Chaturvedi[6]
[1]Department of Applied Mathematics & Humanities
Yeshwantrao Chavan College of Engineering, Nagpur, Maharashtra
thakrenkycce@gmail.com
[2]Assistant Professor
Central Institute of Business Management Research & Development, Nagpur
aarti.kulkarni@cibmrd.edu.in
[3]Assistant Professor, Amity Law School, Amity University, Bengaluru
ORCID: 0000-0002-7961-0455
Email ID: officialjyotirmoybanerjee@gmail.com
[4]Director, MBA,Vaishnavi Institute of Technology and Science, Bhopal.
Email: drrajeshkyadav7@gmail.com
[5]Assistant professor, department of electronics engineering
Ramdeobaba University, Nagpur
jawarkarps@rknec.edu
[6]Professor, Department of Economics, Sojla,
Dev Bhoomi Uttarakhand University
Dehradun (u.k)
drajaychaturvedi@gmail.com

Abstract
In the modern industrial market, where competition is high, training helps organizations increase their efficiency, mainly in areas that require high operation and advanced technology. In this research paper, we critically examine the effect of employee training on the efficiency of companies in the cement sector of Chandrapur which plays a major role in Indian cement production. The research looks at the ways in which structured training, skills development and continual learning impact productivity, operation results and the skills of employees. Information was gathered by interviewing and using questionnaires to collect data from staff at different cement plants. Experts found that more and better training is directly linked to less downtime, more accurate processes, happier employees and fewer errors. The result of the study suggests that applying training methods to specific roles leads to better use of learned skills and lasting gains in work performance. Researchers point out that managers consider training as an investment, instead of a cost, to shape the company's policies and human resource strategies. Various factors were found, including poor review methods, few evaluation options and refusal to adapt which often affect the success of training programs. The study notes that in order for the cement sector in Chandrapur to survive and grow, employee training has to be a key focus and is no longer an option. This research offers knowledge to assist HR, industry and policy experts in designing training plans that address both the company's goals and trends in the industry. The fact that the study focused on measuring outcomes shows the role of workforce development in raising the quality of cement manufacturing.

Keywords: Training Programs, Organizational Efficiency, Cement Industry, Chandrapur, Workforce Development, Employee Performance, Skill Enhancement, Human Resource Strategies, Industrial Productivity, Continuous Learning.

INTRODUCTION

As globalization, automation and technology speed up progress in industry, shaping a company's success now depends greatly on investing in employee training. Due to being a main sector in infrastructure growth, the cement industry greatly contributes to economic development in each region. Chandrapur's

main position in India's cement industry is because it is industrialized, has a lot of limestone available and a developed infrastructure. In the face of more rivals, changing demand, tough new regulations and the demand for better operations, cement manufacturing teams are required to enhance both their operations and employee management. Besides helping employees improve, training also plays an important role in achieving greater organization efficiency. What it includes are activities such as onboarding, growing skills, safety training, applying best practices and developing leadership — all essential in high-risk, process-based industries such as cement manufacturing.

While new machinery and process automation are in use, the presence of people is key to running everything smoothly and cautiously. Employee effectiveness in running machinery, staying safe, reducing machine breakdowns and keeping quality high depends greatly on their training. By training individuals, organizations can improve their skills, promote teamwork, support better communication and raise job satisfaction among their workers. Those businesses that see training as important typically perform better in responding to changes, raising productivity and retaining staff when competitors are fighting for talent. Regrettably, in a variety of companies, learning is either set aside or delivered generally which causes less than ideal outcomes.
This study reviews the effect of training programs on the efficiency of businesses in the cement sector in Chandrapur. The researchers look into how planned training programs shape outcomes such as work production, quality control, safety at work and staff retention. It analyzes the training methods currently found in the area, checks worker opinions on their benefits and highlights main obstacles that hinder their success. Since cement manufacturing is tough and risky, having the right training is both required by law and necessary to succeed. Employees with the right knowledge and abilities are able to reduce accidents, use equipment effectively and address situations as they arise which directly boosts the company's achievements.

Additionally, the survey looks at how HR departments are responsible for designing training plans that support the organization's goals. It stresses the point that organizations should complete a need assessment, plan the training, choose how to provide it (at the workplace or elsewhere) and evaluate it after everyone attends. In addition, the study explores how online tools and simulations may be used with traditional industrial courses for improved education. Both qualitative and quantitative methods are applied: carrying out surveys, interviews, describing information in documents and data, to fully cover all aspects of the subject.

To sum up, this research hopes to add knowledge about how training supports better operational results in the cement industry and how organizations in Chandrapur can benefit from embracing training for their operations. HR specialists, industrial managers, policy-makers and training consultants are expected to get practical directions from these findings for setting up industry-specific training programs that help both workers and the company do better. Because efficiency and results impact both profits and sustainability, training becomes a critical part of an industry's success.

LITERATURE REVIEW

In a report written for SHRM in 2015, Alfred P. Sloan looked at the pressures caused by an aging workforce in manufacturing. The need to create strong training for ticks was highlighted to equip organizations for changing demographics. The report suggests that giving older workers training enhances their abilities and maintains the firm's efficiency.

Amal Mohammed Sheikh Damanhouri and Divya Rana carried out an applied study on non-oil manufacturing in Saudi Arabia in 2017. According to what they found, training is among the factors that most impact labor productivity. Scientists concluded that ongoing training improves how employees do their jobs, decreases mistakes and increases productivity in the industry.

Atsumbe and colleagues examined safety education in industries in Kaduna and Niger States of Nigeria in 2013. Researchers determined that thorough safety education decreases industrial injuries, creates a safe work culture and supports meeting standards for regulations—all of which make the organization more efficient.

Bharthvajan and Fabiyola Kavitha (2019) examined the effect of induction programs on how satisfied employees became. Researchers found that a good induction training system helps new staff settle in fast, boosts motivation and creates the basis for loyal and productive employees.

Curia Pinol et al. (2017) looked into what training is needed by industrial companies in the Barcelona area. The authors offered special training courses and approaches that matched the one-of-a-kind needs of local industries. It was found that when training is focused on the organization's objectives, members become more competitive and interested in their work.

Deepti Agarwal (2018) looked at biscuit manufacturing through her training and development internship at Britannia Industries. According to her, learning while at work allowed employees to get used to quick workflow and produced better-made products.

Dineshkumar and Vijayakumar (2019) concentrated on employee training and development in manufacturing companies. It was concluded that continuously investing in employee training promotes loyalty, teaches new skills and improves operations which is why training is found to be a key strategy.

Engelmann and Schwabe (2018) introduced an architecture for mobile learning that makes it easier for workers to accept new Industry 4.0 technologies. A Conference held in Hawaii brought to light that mobile and digital learning support better prepares workers for adapting to new technology.

In a report by IBM, Ginni Rometty (2018) pointed out that training helps companies stay ahead and develop new ideas. Curtis pointed out that firms that help their employees develop job-relevant skills will succeed in meeting the demands of the world market.

In 2014, Harpreet Kaur Channi investigated how employee performance and the progress of industries are changed by training. She found that carefully planned training can boost productivity, lift employee satisfaction and lead to better company development in the manufacturing industry.

Haslinda Abdullah (2011) studied the way training is done in manufacturing, concentrating on training methods, locations and sources. She believed that a better-fitting training program takes into account what is missing in the skills of the workforce alongside present operations.

Ho Jee Ying and Norani Nordin (2015) talked about lean training in manufacturing businesses. What they discovered is that using lean in training helps cut down on waste, make processes more efficient and keep productivity high by making everyone responsible for progress.

Ipseeta Satpathy, Patnaik and Raut (2018) looked at how training can be inclusive in the manufacturing industry. According to them, when programs are inclusive and tailored to everyone, more staff participate, learn better and the organization improves.

Through her research, Jennifer McNelly (2011), using a toolkit developed by The Manufacturing Institute, shared strategies for bringing together a skilled workforce. She pointed out that the continuation of industry's productivity and competition requires proper workforce development.

In 2017, a study by Kumar, Singh and Kumar examined how well technical employees in the biotech industry were doing after undergoing in-house training. The research proved that when companies do

targeted training for their employees, the workers become better with their skills, show more innovation and work faster.

The authors Leelasarada, Surendra Babu and Satish Kumar (2017) examined whether training improves performance in the manufacturing sector. They discovered that regular, well-organized training is necessary to raise productivity, improve how things are done and lift employee morale.

OBJECTIVES OF THE STUDY

1. To evaluate the impact of employee training on organizational efficiency in the cement sector of Chandrapur.
2. To identify the types of training programs implemented in the cement manufacturing industry.
3. To assess the perception of employees regarding the effectiveness of training programs.

Hypothesis (H_0): There is no significant difference in employees' perception regarding the effectiveness of training programs in the Chandrapur cement sector.
Alternative Hypothesis (H_1): There is a significant difference in employees' perception regarding the effectiveness of training programs in the Chandrapur cement sector.

RESEARCH METHODOLOGY

For this purpose, the research design here is descriptive to gauge how training impacts the efficiency of organizations working in the cement sector of Chandrapur. The research uses data gathered by administering a questionnaire to workers in cement manufacturing plants across the region. Employees from all jobs, both management and support, were drawn at random while keeping different layers of staff represented. A survey was taken from a group of 150 participants to learn their views on how effective training programs are. To back up the primary data, we looked at company reports, training materials, industry magazines and research done before on the topic. The survey contained both types of questions: ones that gave clear answers and ones based on Likert scales that focused on how, how often, how appropriate and the results from various training methods in terms of better skills and more work output. The data was studied using percentages, an average score and a chi-square test to spot any important patterns. Using this method, we can guarantee objectivity and dependability when checking the effects of training on operations and staff in the cement industry of Chandrapur.

Table: Descriptive Statistics on Employees' Perception Regarding the Effectiveness of Training Programs
(N = 150)

Perception Statement	Mean	Standard Deviation (SD)	Minimum	Maximum
Training programs improve job performance	4.25	0.68	2	5
Training content is relevant to job roles	4.10	0.72	2	5
Trainers are knowledgeable and effective	4.05	0.81	1	5
Training programs enhance teamwork and communication	3.95	0.88	1	5
Training contributes to personal career development	4.18	0.74	2	5
Frequency of training is sufficient	3.75	0.95	1	5
Training facilities and resources are adequate	3.85	0.83	1	5
Post-training evaluation and feedback process is effective	3.60	0.91	1	5

ANALYSIS OF DESCRIPTIVE STATISTICS

Observations related to the effectiveness of training programs in the Chandrapur cement sector are presented through the use of descriptive statistics. All perception statements in my sample have mean scores that are above 3.5 on a 5-point Likert scale which means employees in general have a favorable opinion. Participants gave the highest mean score of 4.25 to the statement "Training programs improve job performance", indicating that most people agree that training allows them to do their tasks better. Those who choose Speed to Work also recognize that "Training increases their chances for career advancement" (mean = 4.18). Those related to the quality and use of the training, as well as the abilities of trainers (4.10 and 4.05), were rated highly by participants.

By comparison, feedback and evaluation showed lower numbers (3.60 and 3.75, respectively), showing that some changes are needed to satisfy the respondents more. The fact that standard deviation is moderate (0.68 to 0.95) indicates that many people agree with the effectiveness of training, although some differences are present, possibly owing to the type of job or work carried out within departments.

All in all, the analysis shows that training programs in the cement industry help improve employees' abilities and the company's results. Still, it shows that making feedback easier and considering more frequent or adjusted training efforts can improve the consistency in employee satisfaction and engagement.

One-Sample Statistics

N	Mean	Std. Deviation	Std. Error Mean
150	4.02	0.75	0.061

One-Sample Test

Test Value = 3	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference
	16.89	149	0.000	1.02	Lower: 0.90 Upper: 1.14

One-sample t-test was applied to check if there is a noticeable difference in employees' opinions about the effectiveness of training in the Chandrapur cement sector. Participant responses were measured by comparing their scores to the neutral score of 3 on the Likert scale. The findings recorded a mean perception score of 4.02, much higher than the middle point, meaning employees generally have a positive view. Using 149 degrees of freedom, the t-value worked out to be 16.89 and the resulting p-value was equal to 0.000, meaning it is much less than 0.05. The fact that the result is considered statistically significant allows researchers to reject the null hypothesis, indicating that employees believe the training programs work well. As a result, the alternative hypothesis is accepted which shows that employees' perceptions differ from being neutral. It can be seen that the initiatives undertaken in Chandrapur help the employees and appear to make the company more efficient.

DISCUSSION

According to the study, staff in the Chandrapur cement industry see training programs as effective which fits with what others have found about training's key role in helping organizations and employees do well. The average scores are quite high, meaning employees feel training helps them improve at their jobs, gain new abilities and advance in their careers. This agreement is supported by Bharthvajan and Fabiyola Kavitha (2019), who highlighted the strong tie between employee happiness and induction training, as well as by Harpreet Kaur Channi (2014), who pointed out that training improves employee work performance and organizational progress.

On top of other evidence, the statistically significant difference found by a one-sample t-test suggests that training in this field is both effective and important to employees. This finding matches what Leelasarada

et al. (2017) reported, that training in manufacturing industries boosts overall performance. But the slight dissatisfaction with training frequency and how well feedback is used after training reflects the need for change, a conclusion expressed by Haslinda Abdullah (2011) as well.

In addition, based on Engelmann and Schwabe (2018)'s commentary on Industry 4.0, providing ongoing and flexible learning opportunities is needed to update employees' technical knowledge. It is clear from the study's data that the Chandrapur sector is being successful, but it may benefit from more frequent training and better feedback methods. Moreover, workers' engagement and a company's profitability depend on keeping training relevant and of high quality, as Curia Pinol et al. noted in their study (2017).

All in all, the study shows that training is key to increasing both employee expertise and the running of the company in the cement industry. In the future, efforts should be directed at fine-tuning training plans, including effective testing methods and matching educational offerings with what will be needed in the industrial world to support and grow these good effects.

CONCLUSION

It is evident from this study that employees' views about the success of training in the Chandrapur cement sector are highly positive. Generally, employees believe that training supports their goal accomplishment at work, personal development and move forward in their careers. The differences in employee answers measured by statistics suggest that training efforts are seen as important and valued by the team. Yet, it appears that better results can be achieved by increasing training frequency and the usefulness of the feedback received afterwards. Taking care of these factors expands training programs' effectiveness and constant progress in accordance with the sector. It is clear from the study that effective training is key to creating a skilled and motivated team that can help the cement sector maintain its competitiveness in today's market.

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