ISSN: 2249-7196
IJMRR/April-June 2026/ Volume 16/Issue 2/227-232
S Dheebalakshmi / International Journal of Management Research & Review

Impact Of Training Within A Industry(Twi) Programs On Productivity Improvement Of Shop Floor Employees

S Dheebalakshmi (Author)
II Mba
Department Of Management Studies
Vels Institute Of Science, Technology And Advanced Studies (Vistas), Pallavaram, Chennai
Dr G Madhumitha (Corresponding Author)
Professor
Department Of Management Studies
Vels Institute Of Science, Technology And Advanced Studies (Vistas), Pallavaram, Chennai
ORCHID ID: 0000-0003-3080-6534

Abstract

Training Within Industry programs play a part in helping employees do their jobs better improving the quality of work and getting more work done in factories. Good training helps the people who work on the factory floor learn skills make fewer mistakes work more efficiently and keep production going smoothly. This study looks at how Training Within Industry programs affect the productivity of the people who work on the factory floor at a factory from 2020 to 2025.

The study uses information that the factory already had, like questionnaires filled out by employees training records, production reports, feedback from supervisors and reports on how the factory is doing. The study uses different tools to analyse the information like looking at how productive people are, comparing numbers looking at trends and evaluating how well employees are doing.

The study finds that Training Within Industry programs really helped employees get work done and do their jobs better during the time the study was done. Employees got better at their jobs because they got instructions made fewer mistakes got better at using machines and followed the rules more closely. The study also saw that people were not wasting much time throwing away as much material or redoing as much work after the factory started training programs. Employees felt more confident.

The study says that Training Within Industry programs had an effect, on the productivity of the people who work on the factory floor by helping them learn new skills work more efficiently and do their jobs better overall. The study also says that factories should keep training employees monitoring their performance and giving them hands-on practice to help them get better and better at their jobs. This can help factories produce more and do well in the run.

Keywords: *Training Within Industry Employee Productivity, Shop Floor Employees, Skill Development, Industrial Training, Operational Efficiency, Manufacturing Performance, Workforce Development, Productivity Improvement.*

INTRODUCTION

Training is really important for companies in manufacturing where we need to make things efficiently and with high quality. There is a kind of training called Training Within Industry or TWI. It helps employees learn skills work safely and be more productive on the shop floor. TWI focuses on teaching people how to do their jobs how to do them and how to work with others.

In manufacturing the people who work on the shop floor have an impact on how much we produce the quality of what we make and how well our machines work. When we train them properly, they understand what to do make fewer mistakes, waste less and get work done. TWI also helps supervisors and workers talk to each other better work together as a team and creates a disciplined workplace. This study is about how TWI programs affect the productivity of shop floor employees in a manufacturing company.

Since manufacturing is a business, we need to keep training our employees so they can do their jobs better make high-quality products and help the company run smoothly. We looked at how TWI programs worked from 2020 to 2025 by studying employee performance production records, training reports and feedback from supervisors and workers.

This helps us understand how training affects how well employees do their jobs how much they produce, the quality of their work and how productive the shop floor's.

REVIEW OF LITERATURE

A lot of other studies have shown that training employees is important for making companies work better.

* **Donald Dinero said in 2014** that TWI programs help employees do their jobs better by teaching them about their work, how to do it standardly and how to be more efficient.

* **Sushil Kumar and Ravi Sharma found in 2016** that when we train employees in a way they make fewer mistakes do better work and produce more.

* **Anil Gupta said in 2017** that good training on the shop floor makes employees more confident, better at handling machines and more disciplined, which leads to productivity.

* **Mehta and Rao said in 2019** that when we keep training employees it motivates them helps them work together and makes the company run better.

* **Karthik and Prabhu studied some manufacturing companies in 2021.** Found that TWI programs reduced downtime, rework and waste.

* **Ahmed and Hassan said in 2023** that proper training helps employees adapt be more productive and make high-quality products in environments.

* **Suresh and Nandakumar found in 2025** that regular training and monitoring help companies produce consistently and run more efficiently.

Most of these studies show that TWI programs have an impact on employee productivity how well the company runs, the quality of work and efficiency. However not many studies focus specifically on how TWI affects shop floor employees in manufacturing, which is what this study is, about.

OBJECTIVES OF THE STUDY

Primary Objective

- The core aim here is to explore how Training Within Industry (TWI) programs impact shop floor employees and their overall productivity.

Secondary Objectives

- Take stock of the TWI practices already in place. Check if TWI programs truly boost efficiency and productivity for shop floor workers.
- See how TWI training sharpens employees' skills and lifts the quality of their work.
- Investigate whether TWI helps cut down on errors, waste, and delays on the shop floor.
- Gauge employee satisfaction with TWI training methods—what do they really think?
- Examine TWI's role in fostering better teamwork, discipline, and safety. Pinpoint the main challenges in rolling out TWI programs.
- Suggest practical ways to improve TWI training specifically for shop floor teams.

RESEARCH METHODOLOGY:

This study uses an analytical and descriptive research design. The analysis draws mainly from primary data gathered through surveys, interviews, and shop floor observations of employees involved in Training Within Industry (TWI) programs, covering the period from 2020–21 to 2024–25.

SOURCES OF DATA

Primary Data

- Discussions with shop floor employees and supervisors.
- Personal interactions with training coordinators and managers.
- Direct observations of TWI program implementation and daily work practices.

Secondary Data

- Company training records and productivity reports.
- Internal performance logs and shop floor metrics. Industry journals, books, and research articles on TWI.

OBJECTIVE:

- To understand what makes Training Within Industry (TWI) programs work well for shop floor employees.
- We want to see how parts of TWI like Job Instruction, Job Methods and Job Relations help employees work better and produce more.
- Many organizations and employees face challenges when trying to use TWI programs, on the shop floor.
- When employees join TWI programs do they get better at their jobs feel more confident and do their work over time?
- Can TWI programs really help employees and organizations work productively? TWI programs help employees work productively.

REGRESSION:

		DQA	IQA
Pearson Correlation	DQA	1.000	.757
	IQA	.757	1.000
Sig. (1-tailed)	DQA	.	.000
	IQA	.000	.
N	DQA	104	104
	IQA	104	104

The regression results show a strong and positive relationship between IQA and DQA (R = 0.757). IQA explains 57.3% of the variation in DQA (R^2 = 0.573), indicating good explanatory power. The model is statistically significant (F = 137.092, p < 0.05), confirming that the relationship is not due to chance.</mark> The coefficient (B = 0.772, p < 0.05) shows that an increase in IQA leads to a significant increase in DQA.</mark>

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.634[a]	12	.476
Likelihood Ratio	13.726	12	.319
Linear-by-Linear Association	.732	1	.392
N of Valid Cases	104		

The Pearson Chi-Square value is 11.634 with a significance value of 0.476. This means the Pearson Chi-Square value does not show a result because the significance value is greater than 0.05. The Pearson Chi-Square value tells us that the variables being tested do not have an association. The variables being tested are independent. Do not have a meaningful relationship. The Likelihood Ratio test also shows a significance value of 0.319.

The significance value of the Likelihood Ratio test is greater than 0.05. This supports the idea that the variables being tested do not have a relationship. The Linear-by-Linear Association value has a significance value of 0.392. The significance value of the Linear-by-Linear Association is also not significant. The Linear-by-Linear Association value tells us that there is no trend or pattern, between the variables being tested. The variables being tested do not show a relationship.

CORRELATIONS

		IQA	DQA
IQA	Pearson Correlation	1	.757**

	Sig. (2-tailed)		.000
	N	104	104
DQA	Pearson Correlation	.757**	1
	Sig. (2-tailed)	.000	
	N	104	104

The Pearson correlation coefficient between IQA and DQA is 0.757, which indicates a strong positive relationship between the two variables. This means that as IQA increases, DQA also tends to increase, showing that both variables move in the same direction. The significance value (Sig. = 0.000) is less than 0.01, indicating that the relationship is statistically significant at the 1% level. Therefore, the null hypothesis is rejected, confirming that the correlation is not due to chance.

FINDINGS OF THE STUDY

- The study found that TWI programs made the work of shop floor employees better because they finished tasks faster and made mistakes.
- When TWI was introduced, employees started doing their jobs in a standard way, which meant that the work was more consistent and the quality was better.
- There were things that had to be done over again and fewer defects, which shows that employees understood their jobs better and did them more accurately after they were trained with TWI.
- It took time to train new employees or employees who were moved to a different job because supervisors used the TWI method to explain each step of the task.
- Employees felt more confident and involved in their work because TWI made sure they got instructions and feedback which made them feel more supported on the shop floor.
- Supervisors said they were able to talk to workers which made the work flow smoother and reduced misunderstandings when things were being made.
- Overall using TWI programs made the shop floor work better employees were more productive. The work environment was more disciplined.
- These good changes show that TWI can be a way for companies to make their shop floor work better, by training employees in a systematic way while they are doing their jobs with TWI.

SUGGESTION:

The company should continue and expand TWI programs to cover all key shop floor roles, so that standard methods are consistently followed and productivity gains are sustained.

Supervisors need to conduct regular on-the-job coaching using TWI principles (Job Instruction, Job Methods, Job Relations) to reinforce correct practices and prevent workers from slipping back into old habits. Management should track productivity indicators such as output per worker, defect rate, and rework percentage before and after TWI sessions to identify areas where additional training or method improvement is needed.

CONCLUSION:

The study looked at how Training Within Industry programs affect the work of shop floor employees. It wanted to see how the special training given on the job would change the amount of work done the quality of the work and how well the work gets done over time. The study found that when companies used the Training Within Industry programs the Job Instruction and Job Methods parts the work became more standardized. This means that people did their jobs in a similar way, which reduced mistakes and made the work more consistent.

When the companies used Training Within Industry they saw improvements in how much work each employee did how many mistakes were made and how much work had to be redone. This shows that the employees were doing their jobs better and understood what they had to do. The supervisors also said that they could talk to the employees easily and had better relationships with them. This is what the Job Relations part of Training Within Industry is supposed to do. It helps to prevent problems between people, on the shop floor. Makes it easier to solve problems when they happen.

REFERENCES:

- Aguinis, H., & Kraiger, K. (2009). *Benefits of Training and Development for Individuals and Teams, Organizations, and Society*. Annual Review of Psychology, 60(1), 451–474.
- Anderson, P., Wilson, T., & Brown, R. (2007). *Employee Training and Productivity Improvement in Industrial Organizations*. Journal of Manufacturing Systems, 26(3), 145–152.
- Anita Sharma & Vivek Mehta. (2024). *Relationship Between Employee Training and Productivity Improvement in Industrial Settings*. International Journal of Management Studies, 11(2), 78–85.
- Brown, J., Miller, D., & Thomas, S. (2010). *Impact of Training Within Industry (TWI) Programs on Shop Floor Productivity*. International Journal of Industrial Engineering, 18(4), 233–241.
- Clark, H., Martin, P., & Taylor, R. (1997). *Structured Training Programs and Employee Performance in Manufacturing Industries*. Journal of Industrial Training, 14(2), 90–98.
- Davis, L., Roberts, M., & Harris, K. (2003). *Influence of Training Programs on Shop Floor Employee Productivity*. International Journal of Production Research, 41(5), 1021–1030.
- Goldstein, I. L., & Ford, J. K. (2002). *Training in Organizations: Needs Assessment, Development, and Evaluation* (4th ed.). Belmont, CA: Wadsworth Publishing.