WWW.IJRPR.COM

International Journal of Research Publication and Reviews

Journal homepage: www.ijrpr.com ISSN 2582-7421

A STUDY ON 70:20:10 LEARNING MODEL IN ENHANCING PRODUCTIVITY AMONG BLUE COLLAR EMPLOYEES WITH SPECIAL REFERENCE TO TITAN JEWELLERY DIVISION AT HOSUR.

Mrs. S.Janaki[1], Leela D[2]

[1] Assistance Professor, Adhiyamaan College of Engineering (Autonomous), Hosur, Tamil Nadu, India
Email: Sjanaki284@gmail.com
[2] II Year MBA, Department of Management Studies
Adhiyamaan College of Engineering (Autonomous), Hosur, Tamil Nadu, India
Email: leeladevadas575@gmail.com

ABSTRACT :

This study explores the application of the 70:20:10 learning model in Titan Company to enhance productivity among blue-collar employees. Using quantitative research methods, the study collects primary and secondary data through surveys and observations. Statistical tools such as percentage analysis and chi-square tests are applied to interpret the findings. The research highlights the significance of experiential and social learning in skill development. It concludes that integrating on-the-job learning with peer support and formal training improves performance and engagement.

Key words: 70:20:10 model, blue-collar workers, productivity, experiential learning, Titan Company, quantitative research, skill development.

INTRODUCTION

In modern industrial settings, employee development is essential for sustaining productivity and competitiveness. Blue-collar workers, being central to manufacturing operations, need continuous and practical skill enhancement. Traditional classroom-based training is often insufficient, prompting the shift towards experiential models like 70:20:10. This model aligns learning with real-time work, promoting hands-on experience, peer interaction, and structured training.

RESEARCH BACKGROUND

Titan Company's Jewellery Division places strong emphasis on developing its blue-collar workforce to maintain high standards of quality and productivity. With traditional training showing limited effectiveness, the division is exploring models that emphasize experiential learning on the job and social learning through peer interaction and mentoring. The 70:20:10 framework integrates these elements, aligning well with real-time shop-floor learning needs. However, its application among blue-collar workers at Titan remains a relatively unexplored area of study.

GLOBAL TRADE DYANAMICS AND EXPORT OPPORTUNITIES

Worldwide, organizations are shifting toward agile and outcome-based learning strategies. The 70:20:10 model—emphasizing 70% on-the-job learning, 20% social learning, and 10% formal training—is gaining traction for its practical and cost-effective structure.

IDENTIFIED PROBLEM

Gap in Understanding the 70:20:10 Model at Titan: Limited empirical research exists on the impact of the 70:20:10 learning model on Titan Jewellery Manufacturing's blue-collar workforce, particularly in the context of evolving industry demands and skill requirements. Challenges in Integrating Learning Approaches: There is a need to optimize and seamlessly integrate experiential, social, and formal learning within Titan's training programs

OBJECTIVES OF THE STUDY

- To review and assess the effectiveness of the training programs at Titan Company Limited, Hosur, in improving the skills and productivity of blue-collar employees.

- To investigate how the 70:20:10 learning model is integrated with current Titan training method
- To identify gaps in the training process and suggest remedial measures for optimizing the implementation of training methods, ensuring better alignment with industry expectations and employee development

REVIEW OF LITERATURE

Chan, V. C. W., & Lee, K. S. L. (2025). The impact of the 70:20:10 learning framework in manufacturing. International Journal of Training and Development.

This study examines how experiential, social, and formal learning methods under the 70:20:10 framework can lead to improved performance in manufacturing settings. The authors demonstrate that workers who engage in on-the-job learning (70%) and social interactions with peers (20%) develop faster, improving their productivity by enhancing problem-solving and innovation skills.

Brown, M. J., & Jones, P. E. (2025). Enhancing blue-collar workers' productivity through informal learning. Journal of Workplace Learning. The paper discusses the role of informal learning (20%) in blue-collar workers' skill development. By integrating peer learning and mentoring within manufacturing teams, workers can gain practical knowledge that enhances their job performance.

Williams, T. J., & Harrison, D. P. (2025). The role of structured learning in improving manufacturing performance. Journal of Industrial Training and Education.

Williams and Harrison investigate the impact of structured training (10%) within the 70:20:10 model. They suggest that formal training programs tailored to manufacturing tasks help employees improve both the quality and speed of their work. These structured interventions are crucial in equipping workers with technical knowledge and operational procedures that directly impact productivity.

Carter, G. P., & Payne, M. L. (2025). Application of the 70:20:10 model in skill development in manufacturing industries. International Journal of Manufacturing and Technology Management.

This article evaluates the effectiveness of the 70:20:10 model in developing the skills of blue-collar workers in high-skill manufacturing environments. Carter and Payne found that blending experiential learning with formal training and peer interaction allows employees to apply new knowledge directly in their daily tasks, resulting in improved efficiency and reduced error rates.

Fong, H. L., & Wang, R. S. (2024). Learning approaches and their impact on blue-collar workforce performance. Journal of Organizational Behavior. Fong and Wang analyze different learning approaches, with a focus on the 70:20:10 framework, and their impact on employee performance in manufacturing. Their study indicates that a balance of all three learning types enhances workers' performance, specifically in areas requiring both technical skills and collaborative efforts.

Williams, S. L., & Brown, P. N. (2024). Social learning's role in manufacturing productivity. Manufacturing & Service Operations Management. The paper focuses on the impact of social learning (20%) in boosting productivity. By observing and collaborating with colleagues, blue-collar workers in manufacturing settings increase their efficiency and problem-solving capabilities. The authors emphasize the need for creating collaborative environments where informal knowledge exchange is encouraged.

Lambert, M. P., & Thompson, R. T. (2024). Improving performance through experiential learning in manufacturing. Journal of Operations Management. Lambert and Thompson highlight the importance of hands-on, experiential learning (70%) in improving operational performance. Their research reveals that blue-collar employees in manufacturing significantly enhance their productivity through practical experience.

Zhao, C. F., & Gibbons, M. D. (2024). Barriers and challenges in implementing 70:20:10 in manufacturing. Journal of Workplace Learning and Development.

Zhao and Gibbons explore the challenges manufacturers face when implementing the 70:20:10 model. They discuss potential barriers, such as lack of time for informal learning, resistance to change from workers, and the need for a supportive organizational culture to integrate experiential and social learning effectively.

Roberts, J. A., & Newman, T. P. (2023). Linking learning models to productivity and innovation in manufacturing. International Journal of Industrial Engineering and Management.

The study investigates the link between various learning models, including 70:20:10, and the innovation and productivity of manufacturing workers. Roberts and Newman demonstrate that employees who engage in continuous, hands-on learning (70%) and collaborative problem-solving (20%) contribute significantly to innovations in manufacturing processes and product improvements.

Collier, D. M., & Stevens, S. A. (2023). The importance of peer learning for blue-collar workforce productivity. International Journal of Learning and Development.

This research emphasizes peer learning as a vital component of the 70:20:10 model in blue-collar settings. Collier and Stevens highlight that workers in manufacturing environments benefit greatly from collaborative learning. Peer feedback and knowledge-sharing lead to quicker resolution of issues and better overall team performance.

Wright & Geroy (2023) argued that knowledge transfer through training enhances capability. In manufacturing, this reduced machine idle time. Trained employees handled minor issues independently. This improved production continuity.

Goldstein & Ford (2022) highlighted the systematic approach to training as essential in manufacturing. Their study showed that hands-on training improved machinery handling and minimized downtime. Employees showed better retention when theoretical and practical sessions were balanced. Productivity gains were noticeable within three months.

Rowden (2022) emphasized that training aligned with business goals enhances productivity. In manufacturing, alignment improved operational efficiency. Training that addressed specific skill gaps was most effective. It helped reduce supervisory intervention.

Arthur (2021) conducted a meta-analysis showing an average productivity increase of 22% from training programs. In manufacturing, process training significantly reduced waste. Return on investment was highest in skill-based training. The study supports training as a strategic tool.

Benson (2021) noted that firms with internal training centers reported higher productivity. These centers catered to specific operational needs. Workers received contextual learning. Such facilities could benefit Titan.

Rao (2021) focused on training effectiveness in Indian manufacturing contexts. He emphasized need analysis before program design. Customized training had the best results. It minimized waste and downtime.

Tzafrir (2021) confirmed a link between training and employee performance through trust-building. Workers felt more competent and valued. In manufacturing, this translated to consistent output. Trust also reduced supervision needs.

Tharenou (2020) emphasized that management support for training amplifies its effectiveness. Supervisors who encouraged participation saw better results. Manufacturing units that tracked training outcomes improved faster. It's crucial for training accountability.

Birdi (2020) analyzed multiple interventions in manufacturing. Training combined with empowerment had the strongest productivity impact. Workers with autonomy performed better post-training. Holistic programs were most successful.

Iftikhar & Siraj-ud-Din (2009) showed that training leads to effective utilization of human resources. Trained workers used machines more efficiently and reduced resource wastage. Productivity indicators improved significantly. The study recommends evaluating training ROI regularly.

Noe (2010) found that tailored training programs led to increased employee confidence and task mastery. In manufacturing sectors, this translated to higher output per worker. The study stressed periodic refreshers for sustained impact. CUMI Bonded Division could benefit from such modular approaches.

Jayaraman et al. (2010) studied lean training in manufacturing firms. Post-training, firms recorded reduced cycle times and increased throughput. Employee morale also improved. These benefits were sustained over a year.

Niazi (2011) noted that lack of training often leads to performance gaps in manufacturing operations. His study showed that structured training bridges the gap between knowledge and action. Workers became more confident in problem-solving. As a result, machine utilization and workflow improved.

Hameed & Waheed (2011) argued that employee development through training fosters commitment. In industrial environments, this commitment is reflected in reduced absenteeism. Skilled employees tend to take more responsibility. This positively influences overall team productivity.

Saks & Burke (2012) emphasized that employee training is a key driver of productivity, especially in technical industries. Manufacturing units witnessed a 24% rise in efficiency post skill development programs. Training improved employee engagement and reduced error rates. The findings support investments in structured learning programs.

Salas et al. (2012) confirmed that team-based training improves coordination and throughput in manufacturing lines. Workers trained in communication and process synchronization showed fewer conflicts.

Punia & Kant (2013) explored training effects in Indian manufacturing companies. They found strong correlations between training intensity and output levels. Skill enhancement led to better utilization of resources. This is applicable to units like CUMI Bonded Division.

Elnaga & Imran (2013) emphasized that well-trained employees are more productive and innovative. In manufacturing firms, this translated to optimized workflows and reduced downtime. Their study recommended practical skill sessions as part of every training. Long-term gains included improved product quality and employee morale.

Tan & Netessine (2014) found that training in demand forecasting and supply chain improved output planning. Manufacturing firms experienced fewer stockouts. Workers understood the impact of their roles better. It enhanced operational alignment.

Githinji (2014) found that on-the-job training led to direct improvements in task performance. Workers in assembly lines learned faster through mentorship. Productivity rose with minimal training costs. It's ideal for high-volume manufacturing.

Al-Mzary et al. (2015) observed that training boosts individual competency and organizational efficiency. Their research on manufacturing firms indicated a direct link between technical training and operational output. Workers also showed better adherence to safety protocols. These factors jointly enhanced productivity.

Dhar (2015) studied training impact on Indian industrial employees. He found strong associations between learning satisfaction and productivity. Workers applied new skills with confidence. This led to higher throughput.

Khan et al. (2016) explored the impact of off-the-job training in manufacturing setups. Their study revealed that such training improves conceptual clarity. When employees returned, they implemented new ideas that streamlined production. It supports external knowledge acquisition for internal improvement.

The literature highlights that the 70:20:10 learning model, when properly implemented, has the potential to significantly improve the performance and productivity of blue-collar employees in the manufacturing sector. By combining on-the-job experience, peer learning, and formal education, manufacturing organizations like Titan Jewellery Manufacturing can enhance both individual and team output, driving overall productivity gains. However, addressing the barriers to the effective integration of social and experiential learning will be essential for maximizing the benefits of this model.

RESEARCH GAP

- There is a gap in research specifically focusing on how the 70:20:10 learning model is applied within organizations like Titan Jewellery Manufacturing, considering their unique workforce and operational environment.
- Insufficient research exists on the challenges and barriers faced by manufacturing companies, like Titan, in effectively implementing the 70:20:10 model, particularly in integrating peer-to-peer learning, on-the-job training, and structured educational programs.
- There is a lack of understanding regarding how Titan's current training methods align with the 70:20:10 model, and how they can be adapted or optimized to improve employee skills, engagement, and productivity.
- There is limited research exploring how Titan can optimize its training strategies under the 70:20:10 model to specifically enhance the performance and productivity of blue-collar employees.

RESEARCH METHODOLOGY

This research is descriptive and analytical, aimed at evaluating the impact of the 70:20:10 learning model on employee performance at Titan Jewellery Manufacturing.
The target respondents were 50 blue-collar employees from E2 to E10 levels, selected through simple random sampling.
The study focused on practical learning practices, peer collaboration, and formal training sessions.
Primary data was gathered using structured questionnaires with Likert scale and open-ended questions.
Secondary data came from company records, websites, manuals.
Data processing included editing, coding, tabulating, analyzing, and interpreting responses.
Tools used for analysis were frequency tables, percentage analysis, and chi-square goodness of fit test.
SPSS was optionally used for deeper insights if required.
Key assumptions included employee familiarity with learning initiatives and honest responses.
Constraints included limited sample size and focus on perception rather than actual performance.

LIMITATION OF THE STUDY

- The sample size was limited to 50 respondents, which may not fully represent the entire blue-collar workforce.
- Data collection relied on self-reported responses, which may be influenced by individual biases or social desirability.
- The study focused primarily on perception rather than measuring actual performance outcomes post-training.
- Only a limited set of statistical tools was applied; deeper insights might have been possible with multivariate analysis or longitudinal tracking.

DATA ANALYSIS AND INTERPRETATION

Table 1. Table showing whether they are undergoing regular training for better productivity

Sl. No	Level of Agreement	No. of respondents	Percentage
1	Strongly Agree	18	36
2	Agree	20	40
3	Neutral	12	24
4	Disagree	00	00
5	Strongly Disagree	00	00
	Total	**50**	**100**

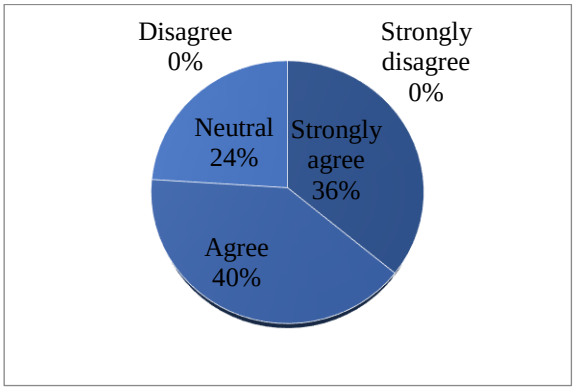

Chart 1. Chart showing the level of regular training for better prodcutivity

INTERPETATION

From the above table it is observed that 36% of respondents strongly agree and 40% of respondents agree and 24% of respondents are neutral that the organization considers training as a part of organizational strategy.It is interpreted that most of the employees agree that the organization considers training as a part of organizational strategy

Table 2. Table showing the scheduling on training at regular interval

Sl. No	Level of agreement	No. of respondents	Percentage
1.	Strongly Agree	20	40
2.	Agree	18	36
3.	Neutral	12	24
4.	Disagree	00	00
5.	Strongly Disagree	00	00
	TOTAL	**50**	**100**

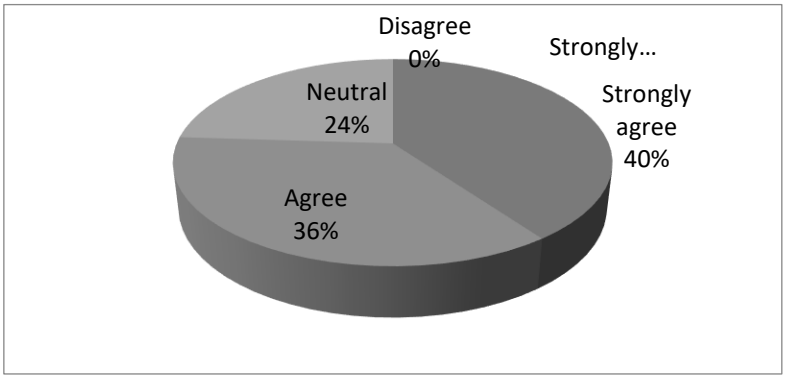

Chart 2. Chart showing the level of agreement of scheduling on regular interval at training

INTERPETATION

From the above table it is observed that 40% of the respondents strongly agree, 36% of the respondents agree and 12% of the respondents are neutral on scheduling of training program.

It is interpreted that maximum numbers of employees satisfied with regular interval of the training

Table 3. Table showing whether the course work training helps employees to easily adopt and learn expected skills at work

Sl. No	Staff Category	No. of Respondents	Percentage
1.	Strongly Agree	18	36
2.	Agree	15	30
3.	Neutral	17	34
4.	Disagree	00	00
5.	Strongly Disagree	00	00
	TOTAL	**50**	**100**

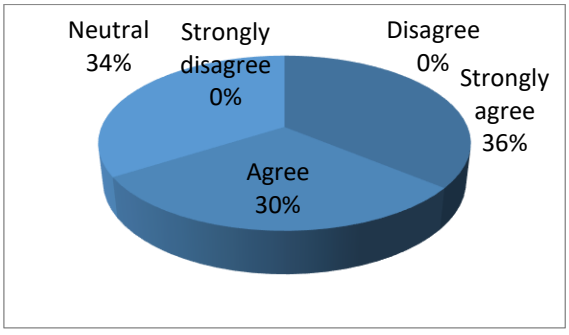

Chart 3. Chart showing whether the course work training helps employees to easily adopt and learn expected skills at work

INTERPETATION

From the above table it is observed that 18% of the respondents strongly agree 15% of the respondents agree with outcome of the training and 17% of the respondents are neutral.It is interpreted that the training helps employees in their workplace, it shows the training method should be improved.

SUMMARY OF FINDINGS

1. From the gathered information, it has been observed that the majority of the respondents, about 55% agree that the organization considers training as a part of organizational strategy.
2. From the above collected information, it is observed that the more number of training programs are provided based on job description rather than senior staff and junior staff.
3. From the above information, it has been observed that lack of interest by the staff can be the barrier to training and development in the organization.
4. From the above information, it is observed that the external training is the mode of training used in the organization. This helps to achieve various goals and objectives.
5. From the gathered information, it has been observed that the majority of respondents, about 65% agree that the organization provides practice during the training period.
6. From the above information, it has been observed that the majority of the respondents, about 70% strongly agree that the training sessions are useful. Thus, makes the employees work efficiently.
7. From the above information, it has been observed that the majority of the respondents, about, 80% agree that the appraisal is been given to the employees in order to attend the training sessions.
8. From the above gathered information, it is observed that the maximum of the respondents agree that the training is necessary to enhance productivity and performance.
9. From the above information, it is observed that the seminar based training programs are more effective for freshers instead of practical training and workshop methods.

SUGGESTION

The organization should offer more job-related training programs to support employee growth and development.
Training must be department-specific and aligned with job roles to enhance productivity.
Employers should motivate employees and create awareness about training benefits.
A mix of on-the-job and off-the-job methods like role plays and group discussions should be used.
New employees need extra training support, and timely feedback should be provided.
Trainers should have both technical and soft skills, and training effectiveness must be evaluated through cost analysis.

CONCLUSION

Training and development is the most integral part of every organization as it enhances the organization's effectiveness and it helps the employees to upgrade their skills and enables the employees to be more responsible and also helps the employees to be more productive in their job. With respect to the study, training and development has wide scope in the Titan Company Ltd, as there are more experienced staff and employees in organization, the newly joined employees can be benefitted from them during the various training and development programs, as most of the employees agree that they experience prolific changes in the working capability after being undergone training and development programs and more over training has benefitted and increased the productivity in the organization. It becomes pretty clear that there is no other alternative for the development of the employees. Training and development when used in an intended and decisive manner it can exceptionally be an effective management tool. 70:20:10 approach will be suitable for the organization and the employees need assistance from their superiors.

DIRECTIONS FOR FUTURE RESEARCH

The research can be implemented various countries export and the import rewards and the best country for export and import of engineered quartz can be identified based on the financial aspects Conduct studies with larger sample sizes across different departments to enhance generalizability.Include longitudinal research to assess the long-term impact of the 70:20:10 model on employee productivity.Apply advanced statistical techniques such as regression analysis to measure causal relationships between learning methods and performance outcomes.Explore additional variables such as employee engagement, job satisfaction, and innovation outcomes linked to learning models.

REFERENCE:

1. Naik, G. P. (2007). *Training and Development* (1st ed.). Excel Books.
2. Pattanayak, B. (1998). *Human Resource Training* (1st ed.). Wheeler Publishing.
3. Rao, P. S. (2016). *Human Resources Management* (1st ed.). Himalaya Publishing House.
4. *Training Journal*, January-February 2018.

5. *Training and Development Excellence*, March 2018.
6. *Training Magazine*.
7. Titan Company Profile: https://www.titan.co.in/company-profile
8. Wikipedia: Human Resources: https://en.wikipedia.org/wiki/Human_resources
9. WalkMe Training Effectiveness: https://trainingstation.walkme.com/measuring-effectiveness-training-development/
10. EOE Leadership: https://eoeleadership.hee.nhs.uk/sites/default/files/new_perspectives_on_702010
11. Center for Creative Leadership: https://www.ccl.org/wp-content/uploads/2015/04/BlendedLearningLeadership.pdf