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Training and Development as Strategic Tools for Employee Growth: Evidence from a Food Packaging Industry.

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Abstract

The present study focuses on assessing the effectiveness of training programs in the food packaging industry, with a specific emphasis on how well these programs enhance employee competencies, motivation, and organisational performance. The research aims to evaluate the extent to which training initiatives align with company objectives, fulfil competency needs, and adapt to evolving technological and industry requirements.

A descriptive research design was adopted, utilising both primary and secondary data sources. Primary data was collected from 100 employees through structured questionnaires, while secondary data was derived from published articles, journals, and company records. The collected data were analysed using SPSS and MS Excel, employing ANOVA and regression analysis to test hypotheses and identify correlations between variables such as trainers' knowledge, training content, duration, materials, assessment methods, and overall training effectiveness.

The findings revealed that while the majority of employees perceived the training programs as relevant, informative, and well-structured, several gaps were identified. Around eleven respondents found the content outdated, seventeen reported a lack of practical or real-world examples, and thirteen felt that the training materials lacked clarity. Statistical results indicated that variables like trainer's expertise, assessment quality, and training duration had a significant positive impact on training effectiveness and employee satisfaction.

1. Introduction

Training and development are essential for improving employee performance, productivity, and adaptability in a constantly changing business environment. Well-designed training programs help employees upgrade their skills, gain confidence, and align their performance with organisational goals. They also promote innovation, motivation, and overall job satisfaction, which contribute directly to an organisation's success.

The food packaging industry recognises the importance of continuous learning and professional development for achieving business growth and maintaining competitiveness in a rapidly evolving market. This industry plays a crucial role in ensuring food safety, quality, and sustainability while meeting the demands of consumers and regulatory authorities. With increasing technological advancements, automation, and changing environmental standards, the need for skilled and well-trained employees has become more critical than ever.

The food packaging industry comprises various segments such as flexible packaging, rigid packaging, labelling, engineering, printing, and research & development, each contributing to the efficient production and distribution of safe and appealing food products. The sector serves a wide range of markets, including food, beverages, pharmaceuticals, and personal care. Companies in this industry also place strong emphasis on sustainability and innovation, adopting eco-friendly materials, recycling initiatives, and energy-efficient production methods to minimise their environmental impact.

The Human Resources departments within food packaging companies play a key role in employee development through programs focused on technical skill enhancement, leadership training, safety awareness, and continuous learning. These training initiatives help employees stay updated with the latest technologies, quality standards, and global best practices. They also encourage collaboration, creativity, and adaptability in the workplace, ensuring that employees contribute effectively to organisational objectives.

With a growing focus on quality, innovation, and sustainability, the food packaging industry continues to evolve as a dynamic global sector. Through effective training and development programs, it ensures a skilled, motivated, and future-ready workforce capable of driving excellence, enhancing productivity, and supporting the industry's vision of providing safe, sustainable, and high-quality packaging solutions worldwide.

Literature Review

Gowsalya R.S. and Asma V.K.M.'s research on the effectiveness of instruction courses in their companies:

Enhancing staff skills and organizational performance requires training. It promotes personal development, workplace safety, and productivity. In order to retain their competitiveness and improve their workforce, modern firms make ongoing training investments. Knowledge transfer, skill development, and behavioral improvement are guaranteed by effective training. By weighing costs and advantages, measuring training effectiveness aids companies in determining return on investment. This assessment establishes whether training initiatives accomplish their stated objectives. Businesses that quickly embrace new information and technology offer superior goods and services. Using training effectiveness models, human resource executives can create and carry out effective training initiatives.

Claudia Cardoso Gomes da Silva and Aline Mizusaki Imoto. Effectiveness of training programs based on mindfulness in reducing psychological distress and promoting well-being in medical students: a meta-analysis and systematic review

Mindfulness meditation is used in medical colleges to assist students with stress management. The usefulness of mindfulness training in lowering psychological distress and enhancing well-being was examined in this study. Randomized clinical trials from many databases were examined in a comprehensive evaluation and meta-analysis. Only eight of the 848 studies satisfied the requirements. The Results showed that mindfulness instruction had a marginally beneficial effect on stress reduction, psychological well-being, and awareness. Although there was a notable improvement in stress, there were minimal impacts on anxiety, sadness, and resilience. The findings show that mindfulness training helps pupils, but it's important to take different study techniques into account when analyzing them.

Winfred Arthur Jr et al. J Appl Psychol. 2003 Apr Effectiveness of training in organizations: a meta-analysis of design and evaluation features

This study analyzed the relationship between training design, evaluation methods, and training effectiveness in organizations. A meta-analysis was conducted, examining various training impact criteria. Results showed moderate to strong effects, with effectiveness scores of 0.60 for reactions, 0.63 for learning, 0.62 for behavior, and 0.62 for results. has a significant positive impact on organizations. Additionally, the study discovered that training methods, task characteristics, and evaluation criteria influenced effectiveness. Limitations were noted, and suggestions for additional study were provided to enhance training evaluation and implementation.

A study on the Effectiveness of Training and Development in the Cement Industry Prof. Brijmohan Vyas, Chandrika K Mistry

This study examines the effectiveness of training in the cement industry, focusing on the development of workforce knowledge, skills, and abilities. As organisations invest significant resources in training, the key concern is its effectiveness. The paper gathers employee feedback on training programs in a cement factory, aiming to inform the development of policies and procedures for more effective training management.

“An Empirical Study on the Impact of Training and Development Methods on Employee Satisfaction and Performance in Non-Scheduled Cooperative Banks in Pune City” Prof. Brijmohan Vyas, Dr Vijay Joshi, and Dr Rashmi R. Hunnur

This study examined the impact of different training methods on employee performance and job satisfaction in 15 non-scheduled cooperative banks in Pune, using 200 responses. Findings revealed that informal learning had the strongest positive effect. Job rotation and training courses also improved morale and engagement. The study emphasises the importance of diverse and structured training programs to enhance employee effectiveness.

Problem Statement

Although the food packaging industry invests in staff training, it is unclear how successfully these initiatives enhance performance, productivity, and skills due to poorly defined evaluation procedures. An unstructured approach could lead to skill gaps, reduced efficiency, and lower employee engagement. This study examines training programs within the food packaging industry, identifies key challenges, and

provides recommendations to improve their effectiveness, align training initiatives with business objectives, and support both workforce and organisational growth.

Objectives of The Study

- ❑ To study the different dimensions of training programmes conducted by food packaging companies
- ❑ To evaluate the influence of various factors on training effectiveness.
- ❑ To ascertain the influence of training effectiveness on employee satisfaction.

Hypothesis

H1: Trainer's Knowledge significantly influences training effectiveness.
H2: Training Content significantly influences training effectiveness.
H3: Training Materials significantly influence training effectiveness.
H4: Assessment significantly influences training effectiveness.
H5: Training Duration significantly influences training effectiveness.
H6: Satisfaction significantly influences training effectiveness.

RESEARCH METHODOLOGY

1. Type of Research:

Using descriptive Research (to describe the training).

2. Sources of Data:

Primary Data: Information will be collected using structured questionnaires

By surveying the employees of the food packaging companies

Secondary Data: Research articles

3. Sampling plan:

Selecting employees from the Dharwad branch of food packaging companies who have attended training.

4. Sampling Frame:

Sample Size: 100

Sample unit: Employees of the packaging company in Dharwad

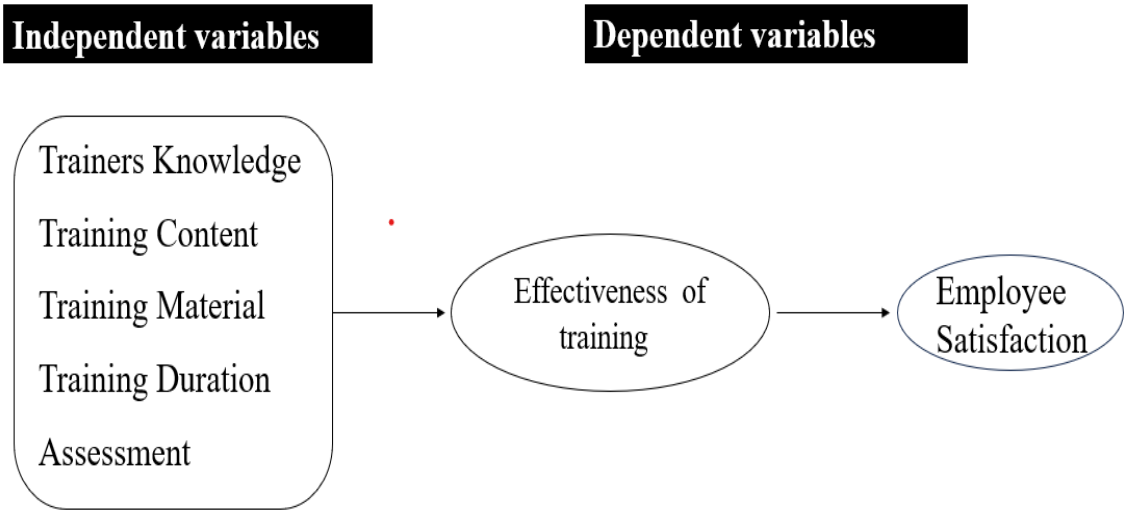
5. Sampling Technique: Random sampling method

6. Data Analysis Tool: SPSS, MS Excel

7. Statistical tool:

ANOVA

Theoretical Framework



Scope of The Study

This research assesses the effectiveness of training initiatives in the food packaging industry, focusing on how training programs impact employees' day-to-day work performance. The study involves workers who have undergone training and evaluates how it has contributed to their skill development and job efficiency. It also examines the potential effects of factors such as training materials, trainer expertise, age, gender, and work experience. Furthermore, the study explores how training enhances motivation, self-confidence, and a sense of worth at work, all of which influence overall employee satisfaction.

Limitations

1. Due to their work schedule, the responders might not have enough time.
2. The respondents may be biased in their responses.

H1: Trainer's Knowledge significantly influences training effectiveness.

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9.460	1	9.460	34.458	.000[a]
	Residual	40.632	148	.275		
	Total	50.092	149			

Analysis:

Regression analysis was used to determine the degree to which the trainer's expertise influences the training program's success. The findings indicate that 18.9% of the differences in training effectiveness can be clarified by the trainer's expertise. This suggests that, taking into account all the factors that contributed to the training's success or failure, the trainer's level of expertise accounts for about one-fifth (18.9%). This influence level is modest, indicating that while trainer knowledge is significant, Other elements also play a role in play.

The training gets more successful as the trainer's knowledge grows, according to the positive relationship indicated by the beta value of 43.5%. Furthermore, the t-value and p-value demonstrate that this outcome is not the consequence of pure chance. To put it plainly, the degree to which employees learn and gain from the training is significantly impacted by the trainer's level of expertise and experience.

Interpretation:

The effectiveness of training is greatly influenced by the trainer's knowledge, as this chart demonstrates. This association is not the result of chance, as shown by the statistically significant results ($p < .001$) from the ANOVA and Coefficients tables. The positive standardised Beta value (0.435) suggests that greater teacher knowledge is linked to more effective training, even if the model only accounts for 18.9% of the variation. This implies that for the purpose of making educational opportunities more impactful, companies seeking to improve training results should concentrate on improving the subject matter expertise and delivery abilities of trainers.

H2: Training Content significantly on training effectiveness.

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4.691	1	4.691	15.290	.000[a]
	Residual	45.401	148	.307		
	Total	50.092	149			

Analysis:

According to the results of the regression, training time and training efficacy have a moderately favorable connection ($R = 0.382$), and training duration accounts for 14.6% of the variance in training effectiveness ($R^2 = 0.146$). An F-value of 25.279 and a p-value of 0.000 indicate that the model is statistically significant, based on the ANOVA table. Training duration is confirmed as a significant predictor by the coefficients table, which shows that its unstandardized coefficient (B) is 0.386 with a t-value of 5.028 and a significance level of 0.000.

Interpretation:

The statistically significant p-value (0.000) supports the findings, which indicate that training effectiveness is greatly increased by greater training length. The positive standardised beta (0.382) suggests that training effectiveness tends to improve with increasing training duration. However, other elements also have an impact. training effectiveness and should be considered account in future models, as the R2 value is just 0.146.

H3: The status of training materials significantly affects training effectiveness.

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.144	1	6.144	20.690	.000[a]
	Residual	43.948	148	.297		
	Total	50.092	149			

Analysis:

Training effectiveness and training material have a moderately good association, according to the regression results (R = 0.350). 12.3% of the variation in efficacy may be explained by training materials (R2 = 0.123). F = 20.690, p =.000 indicates that the model is statistically significant. The training material's good influence is shown by the significant coefficient (B = 0.357, t = 4.549, p =.000).

Interpretation:

Training efficacy can be increased with the use of training materials, which are statistically significant. Better materials result in more effective training, although they only account for a small percentage of the difference. Organisations can improve learning outcomes by investing in resources that are clear, current, and engaging.

H4: Training Duration significantly influences training effectiveness.

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7.308	1	7.308	25.279	.000[a]
	Residual	42.784	148	.289		
	Total	50.092	149			

Analysis:

Training efficiency and duration have a moderately favorable link, according to the regression results (R = 0.382). 14.6% of the variation in effectiveness can be explained by training duration (R2 = 0.146). Both the training length coefficient (B = 0.386, t = 5.028, p =.000) and the model itself are statistically significant (F = 25.279, p =.000).

Interpretation:

Training effectiveness is clearly and significantly impacted by training time. The outcomes are typically better with longer sessions. However, a balanced training schedule that considers content, material, and delivery is necessary for the best results because other aspects also affect efficacy.

H5: Assessment Influences Significantly on Training Effectiveness.

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	13.087	1	13.087	52.340	.000[a]
	Residual	37.005	148	.250		
	Total	50.092	149			

Analysis:

Assessment and training efficacy have a somewhat positive association, according to the regression (R = 0.511). R2 = 0.261 indicates that 26.1% of the variation in training efficacy can be explained by assessment. F = 52.340, p =.000 indicates that the model is statistically significant. Assessment is a strong and significant predictor, as evidenced by the high t-value (7.235) and the unstandardized coefficient (B = 0.504).

Interpretation:

Training efficacy is positively and significantly impacted by assessment. Better evaluation methods improve learning outcomes, according to the results, which show that assessment quality accounts for 26% of the change. Companies should concentrate on efficient evaluation techniques to increase training effectiveness.

H6: Training effectiveness is significant for Satisfaction

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10.950	1	10.950	49.140	.000[a]
	Residual	32.978	148	.223		
	Total	43.928	149			

Analysis:

Employee satisfaction and training efficacy have a moderately favourable association, according to the regression (R = 0.499). R2 = 0.249 indicates that 24.9% of the variation in satisfaction can be explained by training effectiveness. F = 49.140, p =.000 indicates that the model is statistically significant. The t-value (7.010) and the unstandardized coefficient (B = 0.468) both attest to the strong impact of training efficacy on satisfaction.

Interpretation:

Workers are more inclined to be content with their jobs if they believe their training is effective. The findings lend credence to the notion that enhancing the quality of training can generally increase worker satisfaction. This demonstrates that good training is a major contributor to pleasure, even when other elements also play a role in play.

Findings:

1. A p-value of.000 from the regression analysis indicates that the trainer's expertise has a statistically significant effect on training effectiveness.
2. Training length is a statistically significant predictor of training efficiency, according to the regression analysis, which displays a p-value of 0.000.
3. Training material is a statistically significant predictor of training effectiveness, according to the regression analysis's p-value of.000.
4. Training duration is a statistically significant predictor of training efficacy, according to the regression analysis's p-value of.000.
5. A p-value of.000 from the regression analysis shows that assessment is a statistically significant predictor of training efficacy.
6. Training efficacy is a statistically significant predictor of employee satisfaction, according to the regression analysis's p-value of.000.

Suggestions

- More than 11% of participants thought the training material was out of date or out of step with actual demands, as it did not correspond with industry norms. It is crucial to update the information with opinions from industry experts and recent case studies. Employees will be more prepared for real-world job challenges, and relevancy will be guaranteed.
- 17% of participants disagreed that the trainer gave pertinent, useful examples, suggesting that the sessions' practical focus needs to be strengthened. In order to solve this, the instructor should incorporate real-world problem-solving exercises, industry case studies, and demonstrations that link abstract ideas to real-world work scenarios. This will make the training more interesting, relatable, and application-focused.
- 34% of participants expressed no opinion, whereas 13% said the training materials were unclear. Materials can be made more understandable and interesting by employing clearer language, detailed directions, and pertinent examples.

Conclusion

The training programs in the food packaging industry were generally successful, and participants appreciated the trainer's expertise, the relevance of the material, and the overall organisation of the sessions. Clear and engaging training materials were provided, and learning was reinforced through effective assessment techniques. Participant satisfaction was generally high, indicating that the programs were beneficial and supported employees in performing their roles efficiently.

However, feedback from 150 participants identified key areas for improvement. The training did not significantly enhance job satisfaction, lacked hands-on practical learning, and relied on outdated content. The programs would become more engaging, relevant, and beneficial for both employees and the organisation if the curriculum were updated regularly to reflect current industry standards and included skill-building exercises, real-world case studies, and personal development modules. These enhancements would further improve workplace efficiency and employee motivation. In the long term, such improvements would help the industry build a more skilled, confident, and future-ready workforce.

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