



TRAINING AND DEVELOPMENT OF EMPLOYEES AT SAHYADRI STARCH AND INDUSTRIES PVT. LTD., MIRAJ- KUPWAD: A CASE STUDY

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ABSTRACT:

Training and development refers to a set of programmes designed to enhance the job performance. Adequately trained employees are true assets of a business; hence employee training is regarded as a corner-stone of sound management. Proper and timely execution of plans and policies by well-trained employees for being successful, underlines the significance of training and development strategy of an organization. A well planned and well executed training and development programme maximizes the growth of the employees, improves their competence and skills and foster higher level of motivation and enhances their adaptability to change in environment in the organization.

KEY WORDS: *Training and development , set of programmes designed.*

INTRODUCTION:

Training is the process of learning for development. Training helps for application of knowledge and skills. It attempts to improve their performance of current job or prepare them for intended job. So, it is necessary for the organization to invest time and money in the upgrading the knowledge and skills of their employees on a continuous basis. It is therefore an important activity for the organization to conduct appropriate and related training programmes for all employees, so that they can achieve required knowledge related to their work. The purpose of training is to achieve a change in behavior of workers and enable them to perform better. Training enhances the efficiency, knowledge, skill and loyalty of workers and ensures the good material and equipment handling, better performance, wastage control, employee safety, quality improvement, greater job satisfaction and lower labour-turnover.

Enabling newly recruited employees to handle jobs competently, preparing the existing employees for higher level jobs, keeping them abreast of the latest developments in job operations and enabling them to face of rapid technological changes, making them mobile and versatile, bridging the gap between what the employee is and what the job's demands and making them productive and useful in the long-run are some of the well-known purposes of employee training and development. The purpose of this paper is to focus on training and development programme conducted at Sahyadri Starch & Industries Ltd., Miraj.

1.2: Designing Training and Development Programme:

The organization must design the Training and Development programme with due care and clear objective which must address the following vital issues

- Who should participate in T&D programme?
- Who are the trainers?
- Which methods and techniques are to be used for training?
- What should be the level of training?
- Which learning principles are needed?
- Where the T&D programme should be conducted?

1.3: Review of Literature

Some important studies on training and development programme at organizational level and measurement of its outcomes are reviewed as follows.

(1) Wagner (2000) concluded that companies which are providing the training and development programs for their employees are achieving high level of employee satisfaction and low employee turnover.

(2) NeelamTahir et.al.(2014) observed that training and development is an important aspect of HRM. It is important for organization to get skilled and capable employees for better performance and employees will be then competent when they have the knowledge and skill of doing the task. T & D would provide opportunities to the employees to make a better career life and get better position in organization. In doing so, organization's efficiency would be increased. On the other hand, employees are the resources and assets of an organization. If they are skilled and trained would perform better than those who are unskilled and untrained.

(3) P. Nishchitaa and MVAL NarasimhaRao (2014) observed that training programs can become more innovative in times of economic instability through use of technology and self-catering programmes that employees monitor themselves. Companies can also involve employees with the development of training programs to avoid unnecessary spending of training budgets. Hotels should develop training programs with its business objectives, core values and strategic goals in mind. Lastly, to ensure the success of training programs in hotel industry, the programs should be evaluated regularly to monitor the success of the programs.

(4) Dr. B. Nagaraju and Archana M.V. (2015) found that LPG has made the business world dynamic. Achieving business objectives is a challenging for any organization, in order to achieve its objectives the basic responsibility of any organization is that the effective utilization of available human resources. , technology, finances and physical resources, of which human resources plays a very important role in the realization of the objectives of the business. If the human resources are not properly motivated and trained, the management will not be able to accomplish the desired results. Thus it is concluded that the organization should adopt need-based training programmes and design such training programmes meticulously for the training programmes to be successful.

1.4: Sahyadri Starch & Industries Pvt. Ltd.

The first evidence of manufacturing starch was given by Romans in 170 BC, which was followed by a lot of inventions in the product. In the 19th century a large part of the starch was produced in USA which was

made from potatoes. In 20th century an art of making starch from maize was developed. Similarly various new applications of starch were also invented, which created a wide market range for the maize-starch and liquid glucose as they are used in confectionary and bakery products. Colored and uncolored starch was used in cosmetics hair-powder and refill etc. Now-a-days, a wide product range of maize-starch is available for various applications. India is one of the leading maize-starch manufacturing country and Sahyadri Starch & Industries Pvt. Ltd; is one of the famous and leading manufacturing units in MIDC, Miraj which stands 7th in India having ISI standard.

Sahyadri Starch & Industries Pvt. Ltd., started in 1982 by Mr. J.H Majithia as a small scale industry, has now grown as the major industry, spread over 6 acres. It is a non-government company registered at Registrar of Companies, Mumbai as private company limited by shares. Its authorized share capital is Rs. 5 Cr. And paid up capital as on 30th September, 2017 was Rs. 17, 875, 000/- It is an ISO 9001: 2000 certified company. It was established with the aim of providing the excellent quality starch and its derivatives and generating jobs for the youth and upgrading the living standards of surrounding people. The company has provided jobs to more than 300 people of local surrounding area. The company is honoured by CII – Environmental Best Practice Award-2012, Certificate of Maharashtra Energy Development Agency., Maharashtra state Non-Conventional Energy Department Achievement Award-2004, Best Pollution Control Award from Maharashtra Chamber of Commerce-2006, First Prize for Industrial Safety & Environment for Sangli District from Sangli District safety Committee-2010 and Halal Certification.

Its product range includes maize starch, supreme maize starch, liquid glucose, high maltose corn syrups, liquid dextrose, malto-dextrin, modified starches and by-products such as maize husk, maize gluten, maize oil cake, corn steep liquor, maize (corn) oil and maize germ. Maize husk, maize oil cake and gluten are extensively used for cattle and poultry feeds. Maize oil is used for manufacturing *Vanaspoti Dalada* and Refined Corn Oil, which contains very low cholesterol and preferred as a very good cooking medium in most households.

Maize starch is a cereal starch having low protein content. It is manufactured by the most efficient Wet Milling Process, which is the most preferred by Textile Industry, due to its characteristic nature of transforming into a smooth paste within a short time. It is used for sizing, finishing operations. It also finds wide applications in paper and adhesive industries.

Supreme Maize Starch is highly refined starch which is used by food & pharmaceutical manufacturers as their product ingredient. This is microbiologically tested and purified starch.

Liquid Glucose is manufactured from refined starch by acid hydrolysis, which consists of dextrose, maltose, tritetra and higher saccharides. It is used in confectionery and also for making jams, jellies, canned fruits etc. It prevents crystallization of these products. It is also used in chocolates, toffees, biscuits, ice-creams etc. In pharmaceutical industry Liquid Glucose (SO₂ free) is used for preparation of cough syrups, tablet coating and in cosmetics. It also applied as a softening agent in leather industry.

High Maltose Corn Syrups (HMCS) are product by the controlled enzymatic hydrolysis of starch. Two grades of HMCS are produced by the Sahyadri Starch & Industries Pvt. Ltd. One contains 45-50% maltose and the other contains 52-58% maltose. HMCS is widely used in the manufacture of confectionery items because it improves shelf-life of the products due to lower hygroscopes and reduces stickiness. Lower dextrose content

controls better colour stability, outlook and clarity of the product due to reduced crystal formation. HMCS is also used as a replacement of malt in the brewing industry. HMCS increases the output in brewing.

Liquid Dextrose is produced by the complete enzymatic hydrolysis of starch, which contains mainly dextrose with small quantities of maltose and other higher sugars. In the pharmaceutical industry dextrose syrup is used for the manufacture of penicillin, rifamycin, sorbitol, calcium, gluconate, etc. It is also used for the manufacture of caramel, high fructose corn syrup, dextrose monohydrate, etc.

Malto Dextrin is produced by the controlled hydrolysis of starch using enzymes. The extensive commercial utilization of these products is due to the unique property by malto dextrin of soluble solids without appreciable sweetness. It is widely used in instant foods, frozen desserts, soups, beverages, coffee powder etc. as flavouring and bodying agent. Since it has got the moisture holding capacity, malto dextrin is used in several bakery products, cheese and cream products, for candy coating and as crystal inhibitors. It is also used in the manufacturing of nutritional fluids and as filler in tableting and other medical applications.

Modified Starches are made by heating acidified starch slurry below the gelatinization temperature. The acid treatment increases the clarity of the paste and decreases the viscosity of starch. Dextrins are made by roasting acidified starch powder. Dextrins of different colours and solubilities are produced by manipulating process conditions. The company manufactures following modified starches. It is used in textile industry for sizing and finishing of cotton goods, in calendar sizing of special grades of paper to improve ink resistance and printability. Dextrins are also used in foundries for core binding to give strength to mould and to prevent deformation of the core.

The above product range underlines the importance of improving the technical knowledge and skill of employees. Continuous updation of technical knowledge is sine qua non for the company. Negligence towards the T & D programme is likely to incur high cost in long run.

1.5: Statement of the Problem

In the light of foregoing discussion, the statement of problem is defined as ***“Employee Training and Development at Sahyadri Starch and industries Pvt. Ltd., Sangli: A Case Study”***

1.6: Objectives of the Study

The study was undertaken with the following objectives.

- 1) To study the training and development programme adopted by Sahyadri Starch & Industries Pvt. Ltd.
- 2) To analyze the effectiveness of training and development programme of Sahyadri Starch & Industries Pvt. Ltd.
- 3) To examine the satisfaction level of trainees about prevailing T & D strategy of Sahyadri Starch Industries Pvt. Ltd.

1.7: Hypothesis

H₀: The sample workers are dissatisfied with the prevailing training and development programme of Sahyadri Starch & Industries Pvt. Ltd.

H₁: The sample workers are satisfied with the prevailing training and development programme of Sahyadri Starch & Industries Pvt. Ltd.

1.8: Scope of the Study

The topical scope of the study is restricted to the training and development programme of Sahyadri Starch & Industries Pvt. Ltd. For employees. The analytical scope is limited to analyzing its effects of T & D programme and satisfaction of trainees. The operational scope is restricted to drawing conclusions.

1.9: Research Methodology:

It is a case study based on both primary as well as secondary data, for which the following methodology is adopted.

1.9.1: Sample Design:

There are in all 327 employees working at different levels in different departments. This constituted the universe of the study. By using Taro Yamini formula, the sample size was fixed at 180 employees and out of 327 employees 180 employees have been selected by using Tippet's Random Number table.

1.9.2: Data Collection:

The primary data are collected from the sample respondents through personal contact and through instrument of a well-structured questionnaire. Considering the language problem of the sample workers, the questionnaire was translated into Marathi, the local language. The questionnaire contained the specific questions relating demographic characteristics of sample workers, the training programmes in force at Sahyadri Starch and the satisfaction level of sample workers about the training and development programmes.

1.10: Data Analysis and Interpretation

Data collected through questionnaire have been presented in Table No. 1 to 12.

Table-1: Age group-wise distribution of employees (N =180)

Age Group	Frequency	Percentage (%)
Below 25	18	10.00
26 – 40	81	45.00
41 – 55	54	30.00
Above 55	27	15.00
Total	180	100.00

Source: Primary Data

Age group-wise distribution of respondents is presented in Table-1, which exhibits that there are around 10 percent newly appointed employees to whom almost all types of training is required. Around 55% employees are falling in the age group of 25 to 40 years which underlines the significance of training and development at Sahyadri Starch.

Table-2: Tenure-wise distribution of employees (N =180)

Length of Service	Frequency	Percentage (%)
New entrant/fresher	07	03.00
Upto 10 years	92	51.11
11 to 20 years	47	26.11
25 years and above	34	18.89
Total	180	100.00

Source: Primary Data

It can be understood from table 2.2 that there are around 54% employees whose span of service is upto 10 years, who need rigorous training.

Table-3: Education-wise distribution of employees (N=180)

Educational qualification	Frequency	Percentage (%)
School level	21	11.66
Technical education (ITI and equivalent)	126	70.00
Graduate	33	18.33
Total	180	100.00

Source: Primary Data

Table-3 explains that majority of employees (70%) have taken the technical education whereas only 18.33% are graduates.

Table-4: Training Types at Sahyadri Starch & Industries Pvt. Ltd. (N=180)

Training Type	Employee Participation	Percentage (%)
Production process training	68	37.77
Equipment handling training	68	37.77
Safety training	180	100.00
Environmental training	94	52.22
Personal health maintenance	80	44.44
Administrative rules & regulation and conduct rule	18	10.00

Source: Primary Data

Sahyadri Starch provides six different types of training to its employees. Starch industry is a part of food processing which uses starch as a starting material for production of various starch derivatives. Therefore training in 'Production Process' is very basic training for employees. This training is provided to 38% employees during the year to the employees engaged in production process. Equipment handling and safety training are another essential trainings provided to 38% and 100% employees during the study period. It is helpful to curtail the wastages and industrial accidents. Equipment handling training is provided to the employees who are meant for helping purpose to production staff.

Special training in effective management of environmental impacts at the organizational level is provided to 94 employees (52.22%) Personal health maintenance training, which is provided to 45% sample respondents during the year mainly contained personal attention to and maintenance of overall health

through nutrition, physical activities and positive healthy habits. Emotional, social and intellectual wellness are the other important aspects of this training. Training in administrative rules and code of conduct is provided to new entrants.

Table-5: Training Methods at Sahyadri Starch & Industries Pvt. Ltd. (N=180)

Training Method	Employee Participation	Percentage
On- the- Job Training (Job instruction training, Job rotation & Coaching)	70	38.88
Off- the- Job Training (Lecture , Vestibule & Lab Training (DFF-Depth Flow Filtration))	174	96.66

Source:Primary Data

Sahyadri Starch has provided on-the –job training to 39% employees and off-the-jo training to 97% employees during the study period. 9 employees (amounting to 5%) are trained in laboratory i.e. by DFF job method. On-the-job training is provided in respect of production process , equipment handling and safety, whereas for rest of the types , off-the –job training is provided.

Table-6: Periodicity of Training at Sahyadri Starch & Industries Pvt. Ltd.

Periodicity	Production process training	Equipment handling training	Environmental training	Safety training	Personal health maintenance	Administrative rules and regulation and conduct
Annual		✓	✓			
Once in three year	✓			✓	✓	
Once in tenure						✓

Source:Primary Data

Frequency of training programmes depends on the type of programmes.Table-6 speaks that Production Process Training , Safety and Personal Health Maintenance Trainings are provided once in 3 years, Equipment Handling Training , every year while Training in Administrative Rules is provided once in tenure.

Table-7: Training Period at Sahyadri Starch & Industries Pvt. Ltd.

Training Period	Production process training	Equipment handling training	Environmental training	Safety training	Personal health maintenance	Administrative rules and regulation and conduct
0 – 3 days				✓	✓	✓
3 – 7 days						

7 – 15 days	✓	✓	✓			
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Source: Primary Data

Training periods for various training programmes is determined as per the nature and requirement of the programme. The period for personal health maintenance training is decided as 15 days because some tips of diet, exercise, yoga and pranayama etc. are required to perform under supervision and guidance of an experts. In order to acquaint the employees to the new production methods, the Production Process training is provide for 15 days. In the same way, Equipment Handling and Environmental training is also given for two weeks period, while training in Safety, Personal Health Maintenance and Administrative Rules and Code of Conduct are provided for 1 to three days.

Table-8: Trainers Invited by Sahyadri Starch & Industries Pvt. Ltd.

Trainer	Production process training	Equipment handling training	Environmental training	Safety training	Personal health maintenance	Administrative rules and regulation and
Senior staff	✓	✓				
Company officers	✓		✓	✓		✓
Outside experts				✓	✓	

Source: Primary Data

Most of the training programmes are conducted by company officers or senior staff. So trainers and trainees are familiar with each other. Outside experts are called only in case of trainings where they are required. e.g. doctors or yoga teachers etc.

Table-9: Level of Training at Sahyadri Starch & Industries Pvt. Ltd.

Level	Production process training	Equipment handling training	Environmental training	Safety training	Personal health maintenance	Administrative rules and regulation and conduct
Individual	✓	✓	--	--	✓	--
Batches	✓	--	✓	✓	✓	✓
All workers	--	--	--	--	--	--

Source: Primary Data

Trainings are provided to workers according to the requirement. Some trainings are given at individual level such as Production Process Training, Equipment Handling and Safety Training while training in Personal Health and Environmental Issues is organized in suitable batches.

Table-10: Training Outcome Evaluation Method at Sahyadri Starch & Industries Pvt. Ltd.

Training Outcome Evaluation Method	Response
Through written feedback	✓

Through observation by seniors/officers	✓
Time count	X
Quality inspection	X
Through work report	✓
Attitude Score	X
Any other	X

Source: Primary Data

At Sahyadri Starch, there is an official procedure of evaluation of outcomes of training. It is done through written feedback, observation by seniors and through work reports.

Table-11: Parameters of Evaluation of Training Outcome at Sahyadri Starch & Industries Pvt. Ltd

Parameters of Evaluation of Training Outcome	Response
Growth in production	✓
Improvement in quality	x
Amount of wastage	✓
Frequency of accidents	✓
No. of persons on medical leave	✓
Various inspection reports obtained by Govt. authorities	✓
Any other	x

Source: Primary Data

Table 11 talks about the parameters against which the training outcomes are evaluated at Sahyadri Starch. Quantitative growth in production is the preferred parameter to measure the outcomes of Production Process Training while the outcomes of Equipment Handling Training and Safety Trainings are measured against the amount of wastage and number of accidents taken place in the factory, respectively. The outcome of Health Training is measured against the increase or decrease in medical leaves of employees in post-training period. Apart from these, various inspection reports obtained by Govt. authorities also play important role in evaluation of training outcomes.

**Table-12: Employees' Satisfaction about Training and Development Programme
(N=180)**

Factor	Fully satisfied	Satisfied	Not satisfied and Not dissatisfied	Dissatisfied	Totally Dissatisfied	Total
Wi	5	4	3	2	1	--
Relevance of training contents to job positions	140 (77.78)	28 (15.56)	06 (3.33)	03 (1.67)	03 (1.67)	180 (100.00)
Sufficiency of training period	142 (78.89)	19 (10.56)	10 (5.56)	05 (2.78)	04 (2.22)	180 (100.00)
Knowledge and co-operation of trainer	157 (87.22)	15 (8.33)	03 (1.67)	03 (1.67)	02 (1.11)	180 (100.00)

Convenient time slots	135 (75.00)	31 (17.22)	10 (5.56)	02 (1.11)	02 (1.11)	180 (100.00)
Training methodology and learning climate	149 (82.78)	28 (15.56)	03 (1.67)	00	00	180 (100.00)
Post-training evaluation method	05 (2.78)	110 (61.11)	45 (25.00)	20 (11.11)	00	180 (100.00)
Increase in remuneration after improvement in performance	05 (2.78)	06 (3.33)	89 (49.44)	80 (44.44)	00	180 (100.00)
Utility of training to bring attitudinal change	27 (15.00)	127 (70.56)	26 (14.44)	00	00	180 (100.00)
Training creates awareness about health & safety	180 (100.00)	00	00	00	00	180 (100.00)
Effective communication and clearance of doubts	70 (38.88)	98 (54.44)	12 (6.67)	00	00	180 (100.00)
x	5	4	3	2	1	---
f	1010	462	204	113	11	1800
fx	5050	1848	612	226	11	7747
fx²	25250	7392	1836	452	11	34941

Source: Primary Data, Figures in parenthesis denote percentage to total (i.e. N=180)

The success of any T & D programme depends upon the satisfaction level of trainees. Therefore the degree of satisfaction of employees about the prevailing T & D programme of Sahyadri Starch has been studied and the data are presented in Table No. 12 above. For measurement of degree of satisfaction about ten relevant statements incorporated in questionnaire was arranged in Likert's five-point scale ranging from 'fully satisfied' to 'totally dis-satisfied.' These degrees were given weights from 5 to 1. Based on the above data, the null hypothesis that 'The sample workers are dissatisfied with the prevailing training and development programme of Sahyadri Starch & Industries Pvt. Ltd.' is tested as follows.

$$\sum f = 1800, \sum fx = 7747, \sum fx^2 = 34941, \text{ Assumed mean} = 30$$

$$\text{Sample mean} = \frac{\sum fx}{N}$$

$$\text{Standard Deviation (S.D.) i.e. } \sigma = \sqrt{\frac{\sum f.x^2}{N} - (\bar{X})^2}$$

$$t = \frac{|\bar{X} - \text{Assumed Mean}|}{\frac{\sigma}{\sqrt{N}}}$$

$$\text{Sample mean} = \frac{7747}{180}$$

$$\bar{X} = 43.04$$

$$\begin{aligned} \text{S.D.} &= \sqrt{\frac{34941}{180} - (43.04)^2} \\ &= 40.72 \end{aligned}$$

Degree of freedom = 5 - 1 = 4, Significance level = 5% i.e. 0.05

$$\begin{aligned} t &= \frac{43.04 - 30}{\frac{40.72}{\sqrt{180}}} \\ t &= 4.29 \end{aligned}$$

As the calculated value of 't' (4.29) is more than its critical value (2.132) at 5% level of significance the null hypothesis is rejected. The acceptance of alternative hypothesis leads to conclude that the employees are satisfied with the prevailing Training and Development Programme of Sahyadri Starch & Industries Pvt. Ltd.

1.12: CONCLUSION

To survive in the competitive market and to meet the requirements of production, the management of a company needs to make necessary changes at the workplace which should improve employee performance. Well-planned employee training is really a solution to many problems at organizational level. It helps to enhance the knowledge and skills of employees on one hand and sense of responsibility and loyalty on the other. It avails the numerous benefits to the company in long run. Nature of production of Sahyadri Starch underlines the importance of employee training. Sahyadri Starch has a clear focus on having a well-motivated and trained work force which is reflected in its well-planned and well-implemented Training and Development Programme. Through its T & D Programme, Sahyadri Starch has honed and polished the knowledge and potential skills of employees and achieved the goals of employee health and safety. Trainees, the ultimate receiving end, have demonstrated the confidence in and satisfaction towards the T & D Programme of Sahyadri Starch.

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