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## EVALUATION OF TRAINING AND DEVELOPMENT FOR ORGANIZATIONAL COMPETITIVENESS

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*Human Resource constitutes the most important resource for any organisation and hence a large amount of capital is invested by organisations in human resources because it is solely the performance of the human resources that decides the performance and the profitability of the organisation. While the HR department encompasses many functions, the Training & Development department, of late has been gaining impetus in organisations on a large scale. Despite being treated initially as just another department, it is now being recognised as an important function responsible not only for increasing the performance of the organisation but also for increasing the efficiency and the effectiveness of the workforce simultaneously. Training has the distinct role in the achievement of an organisational goal by incorporating the interests of organisation and the workforce (Stone R J. Human Resource Management, 2002).*

*This paper studies survey responses of 155 respondents to understand the effectiveness of training programmes in their respective organizations. CIRO Model of training evaluation has been chosen for designing the questionnaire. The study suggests that training helps in the individual development as well as organizational development. However it has been observed that the support of Top Management is still desirable and designing of training programs can be improved significantly after gathering sufficient information related to the training programs. This study will help in overall improvements in the training cycle and stages of training and development thereby helping the organization to have a cutting edge over their competitors and facilitate the organization to grow and perform better.*

**Keywords:** *Training Evaluation, CIRO, Training & Development, Organizational Competitiveness, Training Effectiveness*

### INTRODUCTION

The Training and Development department also known as Employee Development, Human Resource Development and Learning and Development plays a pivotal role in improving the performance of the employees in order to achieve the organisational goals. A growing organisation needs to understand the changing trends in the market. To make the employees adept to these changing trends, training is the key to accomplish the long term objectives of the organisation. For the development of an effective training programme, it is essential to give

equal importance to every stage of training may it be training needs analysis, training program design, delivery style, or training result assessment.

Depending on the type of industry the organisation lies in and the function to which the employees belong to, the Training and Development programmes must be tailored accordingly. Not always do the best training practices yield an optimum output, hence the organisation must be able to adopt the best practices from the industry while adapting the training programme to suit the culture of its own organisation. Thus, to achieve its purpose, training must be effectively managed so that the right training is given to the right people in the right form at the right time and at the right cost.

## **LITERATURE REVIEW**

Training is viewed by (Apospori, 2008) as an organisational activity that benefits employees by equipping them with the necessary knowledge, skills, attitudes and good customer service delivery, which helps them to cope and respond to changes in the market. Thus, training can be defined as an organised activity aimed at imparting instructions to increase the performance of the recipients to enable them to attain a required level of knowledge and skill. Employees perceive Training and Development programmes as valuable opportunities to enhance their growth both at a personal and career level. These programmes help increase the level of confidence amongst the employees as well as their levels of motivation. The organisation too is able to achieve a long term commitment from its employees. Peteraf (2010), added his voice to the fact that, through training and development, employees learn new skills which make them to have a broader view of the jobs in the organisations in which they work and they are effectively and efficiently utilised in a way that the employer obtains the greatest possible benefits from their abilities. However, overtraining increases the trainees' torments and damages their trust in the training courses (Blair & Seo, 2007).

Training includes four stages, respectively training needs analysis, training program design, delivery style, and training result assessment. A training needs analysis is to understand what training employees really need (Cekada, 2010). Unfortunately, the stage of training need analysis is more often overlooked and the importance of conducting a thorough analysis to identify whether the training needs exist is simply ignored. It was found that training needs analysis are

performed in only 6% of training programs (Arthur et al, 2003). Typically, a training needs analysis should include identifying the needs or problems existing in the organisation along with collecting data to understand the causes of the problems so as to be able to make appropriate decisions whether a training intervention is required to solve the problem or not.

Those organisations which develop a good training design according to the need of the employees as well as to the organisation always get good results (Partlow, 1996). Briefly, training design is a process of creating a blueprint for the training programme which includes establishing its learning objectives, planning, sequencing and structuring the steps to achieve those objectives. At this stage, it is necessary for the trainers to understand the knowledge level of the audience, to select the appropriate technology and check for its availability so that the training programme fits the specified timeframe.

Delivery style was developed by researchers to classify learners based on their approach to perceiving and processing information (Buch & Bartley, 2002). Just as learners have their own preference in learning, so do trainers have their own preference in training. Hence while deciding the delivery style of the training programme, the trainer should select that style which he/she is comfortable with while simultaneously satisfying the needs of the audience.

Post implementation of the training programme, it is necessary to evaluate if the training has had the desired effect on the employee, the department and the organisation as a whole. Chang and Yeh (2004) also supported that training has a great impact on employee's subsequent job performance and the lack of training and development results in workers not familiar with the task requirements as well as the core competencies such as knowledge, skills and abilities which they must possess to perform well in the organisation.

Gareth (2003) defines organisational performance as a measure of how efficiently and effectively managers use resources to satisfy customers and achieve organisational goals. The performance indicators of an organisation include the sales generated, profits earned, customer base, customer satisfaction, market share earned, employee retention, job satisfaction and employee morale. All of the above are achievable only if the efficiency and effectiveness of the employees is upto the highest level. This is possible if the organisation pays attention to employee training which in turn will yield high levels of organisational performance. Thus it is of utmost importance to

integrate training and development programmes into the day to day business practices so as to attain productivity and profitability along with employee satisfaction.

## **OBJECTIVE**

The objective of this study is to assess the evaluation of different stages of training and development process in order to facilitate organizational competitiveness and thereby gaining organizational performance and growth. The study would also like to see the relationship between the different stages of training evaluation of the CIRO model.

## **NEED FOR THE STUDY AND HYPOTHESIS**

To get an update regarding improvement areas of Training and Development, evaluation of training needs to be carried out focusing on measuring the effectiveness at different stages of training process. The CIRO training evaluation model focuses on evaluating before, during and after training cycle has been carried out in the organization.

The CIRO approach is a method to evaluate the impact of training on the employee and the organization as a whole. This approach was originally developed by Warr, Bird and Racham in 1970. The approach has FOUR stages of evaluation:

1. Context evaluation
2. Input evaluation
3. Reaction evaluation
4. Outcome evaluation

The Context evaluation deals with assessing whether an efficient training needs analysis is conducted before every training programme. Only if a thorough training needs analysis is conducted, do the next three stages have a strong base to rely on. Also, it is at this stage that it is determined whether a training programme is required or not for the betterment of the organisational performance.

The Input evaluation deals with aspects like cost efficiency, feasibility, availability of resources and the planning, designing and delivery of the training programme are decided here.

The Reaction Evaluation deals with reactions and feedback of the participants are noted for future references so as to aid the improvement of the future training programmes.

The Outcome evaluation deals with carrying out evaluation at four levels i.e. the individual level, the workplace level, the departmental level followed by the organisational level.

This study will suggest areas of improvement at different stages of training and development process.

The study will further determine whether there is any relationship between the various stages of CIRO model of Training evaluation.

The hypothesis of the study is as follows:

**Ho1:** There is no correlation between the different stages of CIRO evaluation model

## **RESEARCH METHODOLOGY**

The research methodology included a closed ended questionnaire, whereby the researcher provided the respondents with a hard copy of the questionnaire. Data for the survey was also collected by means of google doc. The respondents had to answer the questionnaire individually providing details of their gender, age, no of years of service and number of training attended in the current organization. The questionnaire contained statements related to 4 steps of CIRO model – context, input, reaction and outcomes.

### Primary Data

The primary data was collected using convenient random sampling.

### Sample Size

55 respondents in total were found to be appropriate for the study, which comprised of 98 male and 57 female.

### Sample Design

The research is based on convenient random sampling technique considering the type of study.

For this specific study only those responses were taken who had more than 3 years of work experience and attended more than 5 training programs in the current organization.

#### Secondary Data

Secondary data was collected through various research papers, journals, magazines, books and internet primarily focussing on the subject.

#### Research Instruments

A closed ended questionnaire with 18 statements was used. Each statement had to be responded on a 5 point Likert scale with 1 as Strongly Disagree, 2 as Disagree, 3 as Neutral, 4 as Agree and 5 as Strongly Agree. The statements were prepared to get response for training evaluation based on the 4 stages of CIRO Training evaluation model. To understand the background of the respondents, they were asked to fill in their details like age, gender, number of years of service in the organization, number of training programmes attended and the current designation in the organization.

#### Reliability & Validity of the Study

To check the content validity of the questionnaire, various HR heads from different organization were contacted and the components of the questionnaire were modified as per their suggestions. Cronbach's Alpha Reliability Index was used to evaluate internal consistency of each construct. A minimum of 0.5 is considered as satisfactory level during the early stage of any research and a score of over 0.7 is considered to be a good level. The reliability for this sample was found to be 0.884 which indicates a high level of consistency for the scale. Refer to Table 2a and 2b for further details of Reliability of the Data.

#### Logical Analysis

Effective and efficient data analysis is the result of effective data preparation. This was found to be very crucial between the completion of the fieldwork and the statistical processing of the collected data. Data preparation involved transferring the questionnaire into an electronic format, which permitted and enabled data processing. Microsoft Excel was used to compile the data. This data were further used using Statistical Program for Social Sciences (SPSS) software – version 20 for further analysis and interpretation.

## RESULTS AND DISCUSSION

In order to assess the evaluation of training and development process and thereby determining the effectiveness of the same, all the respondents were asked to rate on the statement based on CIRO model – context, input, reaction and outcome of the training programs they attended in their respective organization. The rating was to be done on a 5 point Likert scale. Responses to the statement that were below 3 which was the mid-point was considered less effective and those which were rated above 3 were considered as more effective. The total response determined the effectiveness of the overall training and development process.

For evaluating the context of the training which deals with basically training needs analysis, 60% of the statements related to context received positive ratings by the respondents and only 13% of the training context received negative ratings. For evaluating the inputs of the training which deals with the planning, designing and delivery of the training program, 45% of the statements related to inputs received positive responses and 19% of the statements were negatively rated. With respect to evaluating reaction aspect which deals with the reaction and feedback of the participants, 48% were positively rated and 19% were responded negatively. For the last stage of evaluating the outcome aspect, a large number of respondents were seeing it to be effective in their organization – 74% were positively rated and only 13% were not satisfied with the outcome of the training and development process. (See Chart 1).

### Context

Items related to context deals with collection of data for performance deficiency and determining training needs and objectives. Chart 1 shows 60% of the responses related to context were positively rated by the respondents. The lowest rating has been received by involvement of Top management in the T&D process (mean=3.18). The standard deviation is 0.98 which indicates there is a uniformity of thought process as far as this element is concerned. Also there is a scope of improvement when it comes to involvement of employees in determining the training needs (mean=3.23). Respondents agree that Training helps in acquiring the technical knowledge and skills (mean=3.94) and the objectives of training program is clearly stated (mean=4.02). (See Table 3).

### Input

Items related to input deals with how well the training program is planned, managed, designed and implemented. Compared to all other stages of evaluation this is the stage which could be seen as the most important aspect for development as the overall positive rating is just 45% which is the least score among all the four stages of evaluation. (See Chart 1). The area which needs maximum attention is collection of sufficient data (mean=3.10) and training sessions are periodically evaluated and improved (mean=3.20). The standard deviation of both the elements are 0.80 and 0.77 respectively also indicates there is high level of uniformity in the responses given by the respondents. By and large the respondents feel if the training is organised and implemented the it is well organised (mean=3.99) and the sessions have sufficient duration (mean=3.54). (See Table 3).

### Reaction

Items related to reaction deals with immediate feedback and reaction of the participants. The positive response to this stage is 48% and the area which needs attention is the briefing and debriefing sessions for the employees attending the training (mean=2.99). However the standard deviation is 1.04 which indicates that the respondents are divided in this aspect. This indicates that few organization carries out this aspect effectively whereas there is a scope of improvement in few of the other organizations. The respondents believe that trainers who carry out the training is an expert in the subject (mean=3.82). (See Table 3).

### Outcome

Items related to outcome deals with the actual evaluation as a result of training and development. This stage has received the best positive response i.e. 74%. This indicates that training has impacted positively in the organizations. Training not only helps in developing individual competencies (mean=4.31) but also helps achieve organizational development (mean=4.10). There is a scope of improvement in the aspect of trainees performance to be measured before during and after the training (mean=3.20). This indicates that the performance of participants are not evaluated pre, during and post training programs which does not give organizations concrete data to evaluate the effectiveness of training programs. (See Table 3).



### Relationship between various stages of Training evaluation in the CIRO model

Table 1 shows that there is a correlation between the various stages of CIRO training evaluation model. This indicates that all the stages are highly correlated and it will have an impact on each other. All the stages of training cycle is important and cannot be ignored. There is a relationship between every stage of CIRO model i.e. context, inputs, reaction and outcome. Hence we reject the null hypothesis that there is no correlation between the different stages of CIRO training evaluation model. We thereby conclude that there is a high degree of correlations between the different stage so CIRO training evaluation model.

### **CONCLUSION**

The study indicates that overall 58% of the responses have received positive ratings and only 15.5% have received negative ratings. (See Chart 1). This indicates that training and development is seen as a developmental tool for organizational overall outcome and thereby helping the organization to sustain and grow in the market.

The top 5 areas which needs attention are mentioned below:

- Briefing and debriefing related the training provided needs to be done for the employees nominated.
- Data should be properly collected before at the stage of the training needs and design.
- Top Management should get actively informed in the T&D process
- Training sessions should be properly evaluated and improved.
- Trainees performance should be measured and evaluated before, during and after their training programme

The top 5 areas which is benefited by training and development are mentioned below:

- Training helps in developing individual competencies
- Training sessions helps achieve organizational development
- Objectives of training programs are clearly stated
- Training sessions are well organized
- Training helps in acquiring technical knowledge and skills.

## LIMITATIONS OF THE STUDY

One obvious limitation of this study is the small sample size (n=155). It would therefore have been worthwhile to have had a much larger sample. Another limitation of the study is that the study was confined to only one city Mumbai. While this was intentional in the case of this study, future research on the same could be done multi cities and with a larger sample size.

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ANNEXURES

Chart 1: CIRO Model – Overall Survey Analysis

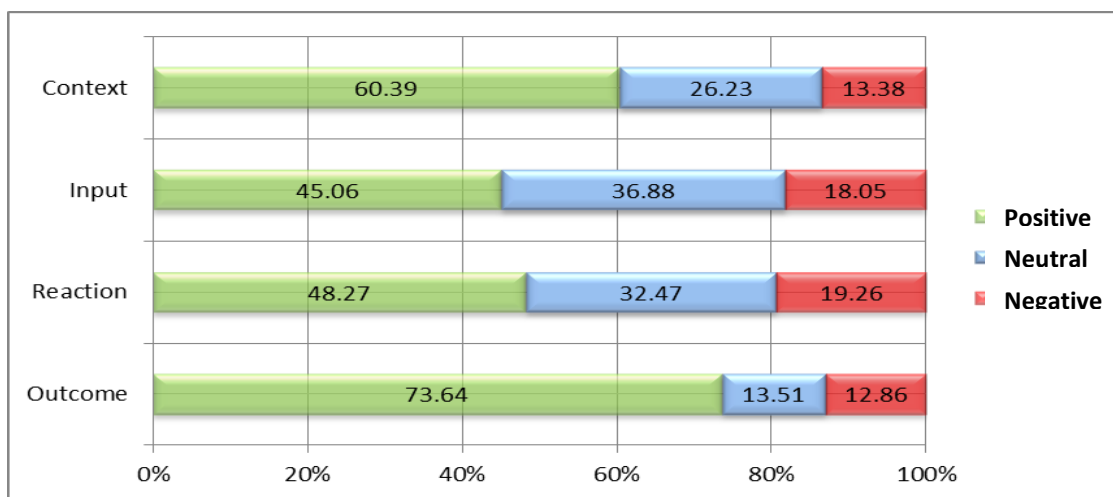


Table 1: Correlations between different stages and overall data for CIRO model

Correlations

		Context	Input	Reaction	Outcome	Total
<b>Context</b>	Pearson	1	.628**	.428**	.829**	.898**
	Correlation					
	Sig. (2-tailed)		.000	.000	.000	.000
	N	155	155	155	155	155
<b>Input</b>	Pearson	.628**	1	.218**	.583**	.731**
	Correlation					
	Sig. (2-tailed)	.000		.006	.000	.000
	N	155	155	155	155	155
<b>Reaction</b>	Pearson	.428**	.218**	1	.463**	.660**
	Correlation					
	Sig. (2-tailed)	.000	.006		.000	.000
	N	155	155	155	155	155
<b>Outcome</b>	Pearson	.829**	.583**	.463**	1	.916**
	Correlation					
	Sig. (2-tailed)	.000	.000	.000		.000
	N	155	155	155	155	155
<b>Total</b>	Pearson	.898**	.731**	.660**	.916**	1
	Correlation					
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	155	155	155	155	155

\*\* . Correlation is significant at the 0.01 level (2-tailed).

**Table 2a: Reliability of the Data**

<b>Reliability Statistics</b>		
<b>Cronbach's Alpha</b>	<b>Cronbach's Alpha Based on Standardized Items</b>	<b>N of Items</b>
.884	.881	18

**Table 2b: Reliability of the item-wise Data**

<b>Item-Total Statistics</b>					
	<b>Scale Mean if Item Deleted</b>	<b>Scale Variance if Item Deleted</b>	<b>Corrected Item-Total Correlation</b>	<b>Squared Multiple Correlation</b>	<b>Cronbach's Alpha if Item Deleted</b>
1	60.532468	88.405	.568	.934	.876
2	60.168831	97.179	.027	.651	.890
3	61.012987	86.091	.600	.804	.875
4	60.201299	94.434	.182	.758	.888
5	60.649351	92.306	.188	.782	.892
6	60.909091	89.472	.281	.911	.890
7	60.987013	86.987	.720	.962	.872
8	60.246753	84.900	.716	.814	.871
9	59.883117	80.493	.781	.910	.867
10	60.961039	82.661	.687	.924	.871
11	61.201299	83.654	.693	.847	.871
12	60.532468	84.171	.804	.877	.868
13	61.084416	89.103	.540	.769	.877
14	60.987013	80.467	.765	.931	.867
15	60.948052	90.867	.436	.716	.881
16	60.441558	82.506	.751	.930	.869
17	60.084416	89.662	.638	.708	.876
18.	60.370130	99.090	-.119	.618	.895

**Table 3:** Overall Average scores for the instrument based on CIRO model

Stages	Item Nos.	Description	Mean n=155	SD	Ranking
<b>C</b>	2	Objectives of Training program clearly stated	4.02	0.62	<b>3</b>
<b>C</b>	8	Training helps acquiring technical knowledge and skills	3.94	0.92	<b>5</b>
<b>C</b>	1	Adequate importance to T&D	3.66	0.83	<b>9</b>
<b>C</b>	10	Employees participating in determining the training they need	3.23	1.12	<b>13</b>
<b>C</b>	3	Top Management active involvement in T&D process	3.18	0.98	<b>16</b>
<b>I</b>	4	Training sessions well organized	3.99	0.80	<b>4</b>
<b>I</b>	5	Training sessions having sufficient duration	3.54	1.17	<b>10</b>
<b>I</b>	6	Outsourcing of Training program would yield better results	3.28	1.28	<b>11</b>
<b>I</b>	7	Training sessions are periodically evaluated and improved	3.20	0.77	<b>15</b>
<b>I</b>	13	Training programmes are carefully chosen after collection sufficient information	3.10	0.80	<b>17</b>
<b>R</b>	18	Trainers have hands on experience in the subject matter they are teaching	3.82	0.74	<b>6</b>
<b>R</b>	15	Appropriate feedback is provided to trainees based on their evaluation results	3.24	0.78	<b>12</b>
<b>R</b>	11	Briefing and debriefing sessions conducted for employees nominated	2.99	1.04	<b>18</b>
<b>O</b>	9	Training helps in developing individual competencies	4.31	1.15	<b>1</b>
<b>O</b>	17	Training sessions helps achieve organizational development	4.10	0.65	<b>2</b>
<b>O</b>	16	Training sessions increases job satisfaction and commitment towards the organization	3.75	1.05	<b>7</b>
<b>O</b>	12	Improvement in the departments performance post training	3.66	0.88	<b>8</b>
<b>O</b>	14	Trainees performance is measured before, during and after the training	3.20	1.17	<b>14</b>
		<b>Overall</b>	<b>3.57</b>	<b>1.02</b>	