Effectiveness of held Training Courses in Management and Soft Technologies –An Evaluative Study

Zeinolabedin Nejatsabet, Magre Sunita Vithalrao

Research scholar, Dept. of Education University of Mumbai, Maharashtra, India.
Associate Professor, Dept. of Education University of Mumbai, Maharashtra, India.

Abstract

The project of evaluating effectiveness and improvement with the goal of studying and evaluating organizational trainings has been done (2006-2010) in Management and Soft Technologies University of Iran. In this research plan there were totally 78 people of university staffs including 21 managers, and 66 experts as sample population; which their opinions is collected and analyzed through two different questionnaires. In this project totally 12 research question has asked. These questions are classified in three groups of the questions related to training effectiveness and its related factors (increasing professional job knowledge, improving job attitude, and increasing job skills), questions related to balancing variables (position of sample population, qualification, filed of study, and work experience in university, and question related to strengths and weakness points of training courses and stating some suggestions to increase effectiveness of training courses of the company.

Results of study has shown that although held training courses did not have complete and suitable effectiveness but, regarding statistical calculations it can be claimed that effectiveness of organizational trainings of university was significantly higher than the assumed average (60% maximum score of effectiveness). For the balancing variables viewpoint it is also seen that among opinions of sample population separated by organizational position (manager – expert) and level of education there was a significant difference between sample population in effectiveness of held training courses but in case of separated variables of study filed and years of experience in university there was no significant difference. Also, sample population has mentioned some of the most important strength and weakness points of training courses of university. Collected statistical data of this study analyzed with the help of descriptive and illative statistical indicators and based of derived results research questions of this study is answered.

KEYWORDS: Training, Improvement, Effectiveness and Evaluation.

INTRODUCTION-

Training and improvement is an experience and activity based on learning which is done for creating an almost constant and stable change in person so he/she can improve his/her own abilities for performing a job. Education and improvement can lead to change in the level of knowledge, attitude, ability, skills, career and social behavior of people. In other words, training and improvement means a change in knowledge of people and their attitude towards their job, coworkers, and their organization, and as a result,
workmanship and their efficiency, and also their interaction with supervisors and coworkers will improve.

Training and improvement has a fundamental role and effect in increasing knowledge level and skills of people and improving attitude of them toward their organization and their duties and job activities. Therefore, organizations and institutes which know the role and effect of human resource in their organizational functionality and are aware of the role and effect of training and improvement in increasing knowledge and skills and also improving attitudes of their staffs and as a result increasing their abilities and attitudes considered the costs of training and improvement as investment and in their development plan and annual budget allocate a considerable amount to training and development of their human resources.

Most of the successful organizations which create a balance between development and training assure that their staff not only have ability to do their assigned job tasks, but they are ready to accept new and higher duties and responsibilities, and with training make them ready for higher positions and responsibilities (George Green, 2003, p.7).

Training and development is effective when both the needs of organization and needs of people secured. Training and improvement is an activity that supports general goals of the organization and is a kind of investment on staffs (Gratwright, Roger. 2003, p.3-6). Having excellent training facilities for organizations and companies is becomes an effective factor in recurring and keeping people in their set. Research findings of Gallup institute shows that people join organizations or companies because of one of the below main reasons (Marcus Buckingham and Curt Coffman, 2002. p14):

1- Charismatic character of organization leader
2- Generosity in securing staffs
3- Valuable training programs in highest global level

With publishing results of Harbison’s studies and development of investment of human resource theory, attention and emphasizing on training human resources as the main pillar of the organizational development has placed as the primary priority of planning and managing of organizations. On this basis, during the last half century attention and investments of governments and organizations in training activities has increased drastically. It is obvious that organizational trainings (during the service and beside service) as a part of informal educational activities are included in this matter. And even some economists and educational evaluators believed that this kind of informal trainings has more effectiveness and efficiency than formal education.

Therefore, today discussion about necessity or priority of investment in human resources and stating its desirable short-term and long-term effects on realizing goals of organizations is a proved discussion and there is no need of argument on this. Nevertheless, planners and managers of organizational trainings are now facing a more important challenge or question which inevitably has to answer that. “Organizational training till which level were effective in suitable utilization of allocated resources (human resource, financial, and material) and finally in realizing preplanned goals?” and
this is the question that answering that is as much complicated and difficult as its necessity to answer.

Above problem can be stated from another view point. If the process of training development in organizations includes three main stages of establishing organization, growth and quantitative development with emphasizing on quality, it can be seen that most of training centers units which are responsible for training of staffs are in the second stage or transition though second stage to third stage. From the other hand, other obvious traits is emphasizing on quality with attention to qualitative evaluation of training activities or “determining the level of effectiveness” of these activities.

In other words, if the effectiveness of organizations and staff training centers considered as realizing of preplanned goals, it is necessary to evaluate and analyze the success rate to achieve these goals with scientific tools and methods. In the essence of such this study success or failure of training centers can be judged.

Because the word “effectiveness” is one of the key variable of this study, and also regarding that the concept of this term sometimes has mixed with some other words such as “efficiency”, “productivity”, “being economical”, etc., therefore, define and stating that is a must.

If an educational organization (or any other organization) includes three elements of goal, resources, and product, analyzing of the relation of above concepts with main elements of the organization can be studied more accurately. In other words, each organization establish for fulfilling a goal or a set of goals. And for achieving above goals consume some resources and finally produce a product or products.

Below diagram shows the relation between elements of organization with concepts of “efficiency”, “effectiveness”, and “being economical”.

Based on the above model if the relation between consumed resources and products of the organization considered, in fact, efficiency of the organization measured. If the relation between goal and product considered, effectiveness of the organization determined. And finally, if the consumed resources in relation to achieved goal or goals
analyzed, being economical of the organization evaluated. It is obvious that each of the above three evaluations needs utilizing specific theories, principles, and technics.

SIGNIFICANCE OF THE STUDY

Although in statement of the problem some dimensions and factors which are required and necessary in assessment of effectiveness organizational training mentioned, but most important necessity of performing this study is as below:

- Final mission of training centers is achieving goals. Managers and executors of training programs not only have the responsibility of determining goals, allocating resources, determining methods, controlling and supervising training programs, but moreover and most importantly they are responsible for determining effectiveness rate of training programs on individual and organization efficiency. Therefore, measurement and analyzing effectiveness of training programs for every organization and training center such as Management and Soft Technologies University is vital and necessary.
- Every year a considerable part of rare and valuable resources of organizations including human resource, financial assets, time, physical and logistic facilities, and perhaps most importantly talents and job opportunities and staffs development is provided to training centers. It is obvious that assessing effectiveness rate of training centers in the way they utilize these resources is necessary and important.
- Evaluating effectiveness rate training will provide valuable feedback information about weakness and strength points of operation, correction and developing current activities, and performing effective planning to managers and training authorities of the university.
- Also, limitation or lack of previous studies on evaluating effectiveness of training activities of university adds extra importance and necessity on performing current study.

OBJECTIVES OF THE STUDY

Main objective of this study is to measuring and analyzing effectiveness rate of training courses and programs of Management and Soft Technologies which has held during time period of 2008 to 2010. It is obvious that with achieving this goal moreover than recognizing weakness and strength points of effective factors on effectiveness of mentioned courses, some recommendations and guidelines for increasing effectiveness of training courses of university can be presented.

RESEARCH QUESTIONS

1- What is the total effectiveness of held training courses?
2- What is the effectiveness on held training courses on increasing job knowledge of staffs?
3- What is the effectiveness on held training courses on improving job insight of staffs?
4- What is the effectiveness on held training courses on increasing job skills of staffs?
5- What is the effectiveness of held training courses on improving operation of staffs?
6- Is there a significant difference between opinions of managers and experts of university about effectiveness rate of held training courses?
7- Is there a significant difference between opinions of sample population of study separated by their qualification level about effectiveness rate of held training courses?
8- Is there a significant difference between opinions of sample population of study separated by their fields of study in university about effectiveness rate of held training courses?
9- Is there a significant difference between opinions of sample population of study separated by their job experience in university about effectiveness rate of held training courses?
10- What are the strength points of the held training courses in three areas of planning, implementation and evaluation?
11- What are the guidelines for improving and increasing effectiveness of training courses in university?

RESEARCH METHODOLOGY:

If we divided research methods into two methods of experimental which in that researcher through controlling depended and independent variables aim to recognize and discover cause and effect relation among phenomenon and non-experimental method which in this researcher has no control over variables and just study variables and recognizing relation between them, it can be said that current research is of non-experimental studies or in more exact words is one of the descriptive research study.

From the other hand, among various studies on evaluating effectiveness of organizational trainings, because participants of the training courses of university did not attend pretest and there is no basic information for comparing efficiency of them before and after implementation of training; therefore, for implementing this study “evaluation after training” method or plan has been used.

Method of Data Collection

In data and information collection of this study two methods of library method and questionnaire method have used. Library method has used for collecting required scientific and research information presented in libraries, research centers, and national and international databases, and questionnaire for collecting opinions and answers of population samples, with utilizing scientific resources and using experiences of related research literatures have made, distributed and collected by researcher.

Data Collection Tools

As mentioned before, main tools of data collection in this study was questionnaire. For making questionnaire initially four primary variables of “job knowledge”, “Job insight”,
“job skill”, and “job efficiency”, defined functionally, and after determining primary variables for each one appropriate questions for measuring and analyzing them has been designed. Moreover, some of primary variables of sample population which in fact are balancing variables of study has also been determined and through a table in first part of the questionnaire presented. Also, some open questions about weakness and strengths points of training courses and other opinions and recommendations of respondents are presented in the questionnaire.

Because sample population of this study includes two groups of managers and experts, therefore, main questionnaire of study has been designed in two separate and appropriate for each group. It is obvious that there are some specific questions which have been put in corresponding questionnaire of each two groups. Manager’s questionnaire had totally 49 questions and expert’s questionnaire had totally 45 questions.

For determining validity and validating assessment tools, preliminary questionnaire has been distributed and collected experimentally among 25 people of sample population (10 manager and 15 experts). In this step and based on resulted outcomes form and content of questionnaire and final from of questionnaires of study designed and prepared.

**Population and Sample**

Statistical population of this study includes two groups as below:

- **a- Managers groups**: includes all managers, assistant managers and presidents of training groups of Management and Soft Technology which based on stated statistics by university were 30 people.
- **b- Expert group**: includes all staffs of Management and Soft Technology which has bachelor degree qualification or was authority of expert duties. Number of this group has announced 110 people.

Therefore, total number of statistical population sample was 140 people which samples have been chosen between them. For choosing samples two methods of stratified sampling and simple random sampling has been used. Sample volume of managers 26 and experts was 94 people and questionnaires distributed among them. Below table show number of population sample, samples, received questionnaires, and completed questionnaires or primary samples of study.

**Number of sample population separated by groups**

<table>
<thead>
<tr>
<th>Sample Groups</th>
<th>No. of population</th>
<th>No. of Samples</th>
<th>No. of Sent questionnaires</th>
<th>No. of received questionnaires</th>
<th>No. of Completed questionnaires (final sample)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managers</td>
<td>30</td>
<td>26</td>
<td>26</td>
<td>23</td>
<td>21</td>
</tr>
<tr>
<td>Experts</td>
<td>110</td>
<td>94</td>
<td>94</td>
<td>72</td>
<td>66</td>
</tr>
<tr>
<td>Total</td>
<td>140</td>
<td>120</td>
<td>120</td>
<td>95</td>
<td>87</td>
</tr>
</tbody>
</table>
As seen above, final sample of the study (87 people) is more than 72.5% of determined population volume and includes 62% of total population sample. Therefore, it can be claimed that population sample in case of numbers and also sampling method were valid and sample represent population, and resulted outcomes has capability of popularization.

Data Analysis method

Collected data in this study analyzed with SPSS statistical software. In analyzing collected data two groups of descriptive statistical indexes and inferential statistics appropriate to type of data and research questions of the study has been used. Utilized descriptive statistical indexes includes calculate average, weighted average, standard deviation, correlation coefficient, and coefficient of variation. Moreover, in presenting of findings frequency distribution tables, calculation percentages, and diagrams has been used.

Utilized inferential indexes includes Chi-square ($X^2$) for determining difference or significant relationship among observed distribution, and t-Test for determining significance of observed differences between two averages and one side variance analysis (ANOVA) for determining significance of observed differences among more than two average.

Summary of Results and its analysis

Results of collected data of this study classified into two general groups of characteristics and features of samples and findings related to research questions. But, here we just mention findings related to research questions.

Brief results related to questionnaire questions

Before presenting brief results related to questionnaire questions, it is necessary to mention that for better understanding of answers of samples of study to various choices of each questions, points or total marks of each question has been calculated and presented through average weighted calculation and changing it into percentage scale. Through this method, not only a better understanding of answers achieved, but moreover and perhaps more importantly, there is a chance to compare answers to various questions.

- The rate of relationship and familiarity of managers with training affairs of university is averagely 70%. Also this group believes that human resource training and development management was 60% successful in performing their duties. And the rate of success of this management in making relationship to other units of university is evaluated about 62%.
- Primary motivation of staffs (with 91 points) for participate in training courses moreover than increasing knowledge and job skills were also providing progress and technical development. This matter in fact is considered as an advantage and potential opportunity for developing and deepening organizational trainings in university.
- Experts believe that offered trainings was 73% related to their job needs.
Managers’ opinions show that marks of proportion of goals and orientation of training programs of university with goals, missions and needs of university were 69%. Nevertheless, the rate of desirability of needs assessment methods of university and defining and codifying training programs of university staff was announced as 62%.

From managers view point, necessity and importance rate of training staffs is averagely 71%. Also, this group announced the rate of motivation of staffs for participation in training courses as 78%; while experts announced the rate of this motivation 91%.

From managers view point, the rate of association and dealing of top management of university in training courses 62% and cooperation of office managers in planning and implementing of training programs was 40%.

Managers believe that desirability of allocating credits method to training program is 62%. Also, 38% of managers stated that they do not have any information about the amount of allocated credits for training programs during last five years and 29% believe these credits are fixed or even decreased.

Managers evaluated the desirability of evaluation of practical effects of these training (increasing efficiency) as low and about 40%. Also, mark of active participation of whole related staffs (experts, participants, managers) in training evaluation announced as 68%. Moreover, 48% of managers believe that evaluating effects of training courses done through subjective methods and taking feedback from participants and without noticing job efficiency improvement indexes.

From managers view point, announcing results of evaluations is not desirable and mark of this factor is 57%. Only 24% of managers believe that usually results of evaluations presented to all related audiences.

One of the most important factors on effectiveness of training courses is the way managers and organization behave to participants after ending training programs. From the managers view point, this factor has 29% mark which was the lowest mark between questions of questionnaire. As only one of the managers stated that managers forces trainees to utilize their trainings and in case of successful utilization encourage them and giving prize to them.

From the experts view point, the most important strength points of training courses were “quality of teachers and trainers”, and “supervision of how these training courses implement” which marks of both these factors were 76%, and against it “method of choosing and selecting participants in these training courses” and “dominant culture and atmosphere in university about training activities” allocated the lowest marks to themselves (63% and 65.5% respectively).

From the managers view point, the effectiveness of held training courses in university was 65% and from the experts view point it was 72%. Managers group believe “increasing interest and efforts of staffs for constant learning” and experts group believe “increasing job knowledge” as the most important result and outcome participants in training courses.

If we categorize results and outcomes of organizational trainings into three aspects of “increasing job knowledge”, “improving job insight”, and “increasing
job skills”, managers believed that the most desirable effect of held training courses in university was on respectively “improving job insight”, and “increasing job knowledge”. Nevertheless, experts believe that increasing job knowledge has the highest marks and increasing job skills has the lowest mark.

- Samples totally mentioned 50 strength points for training programs of the university which could be summarized and classified into 10 factors. 3 points of these strengths points are:
  - Development and increase of staff training activities in university
  - Supporting top managers of organizational trainings
  - Interest of staffs for participating in training courses

- Also, totally 137 training weakness points mentioned by samples of study which has summarized into 14 factors, five points of the most important of them are as below:
  - Lack of accurate training needs assessment for planning training activities
  - Lack of necessary connection between trainings and job duties if staffs
  - Lack of mentioning staff training in long-term policies of university
  - Lack of coordinated and comprehensive plan for training and development of staffs
  - Not utilizing of learned knowledge of university staff after ending training courses

- Study samples totally stated 42 suggestions and guidelines for correcting and improving staffs’ training programs which could classified into 14 main factors or guidelines. 4 of the most important suggestions are as below:
  - Codify and implement training needs assessment for all of the staffs of university
  - Predicting some methods for effective utilization of staff learning
  - Establishing various official relation between organizational trainings and employment situation and job development of staffs
  - Allocating more financial credits and facilities, software and hardware equipment to training programs of university

Conclusion

In this project a combination of models and patterns of training effectiveness evaluation has been used. Various indicators such as adopting content of course with training needs of participants, appropriateness of training goals with goals and policies of university, understanding importance of trainings by managers, appropriate and sufficient credits, trainers quality, managers’ behavior with participants after finishing training course, increasing interest and motivation of participants for more learning, increasing job knowledge and information, improving job efficiency, and etc. have utilized for evaluating effectiveness. On this basis, held training courses from 2005 to 2010 has effected on efficiency of staffs of Management and Soft Technologies. Effectiveness rate of training courses on university staffs was 70% and with 99% confidence was significant. But for increasing effectiveness of training programs it is necessary that presented recommendations in form of practical programs codify and implement. In this regard, forming a committee of managers and training and human resource development experts for implementing recommendation seems to be necessary.
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