The Factors Affecting Training Effectiveness And Research Findings

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Abstract - This study aims at indicating the factors having effect on the efficiency of the training received by the employees. The study was conducted on 57 employees of banking sector in which bank benefited extensively from training activities. In this study, survey method has been applied to all participants. The scales in this study are the measures that have been used in other studies before. In this study, discriminant analyses have been used to determine the variables that separate the individuals with progress from the others. According to the results of analysis for the determination of variables discriminating the persons to whom the training transfer has been achieved and to whom the training transfer has not been achieved, amongst the employees received training. The scope of this study is limited to the technical trainings since the effects of the behavioral trainings cannot be monitored in short periods and they are hard to observe. Facts of the study showed that companies should consider factors affecting on the tasks for their staff while designing training programs in terms of effectiveness. Increasing effect of training and development programs and its direct relationship to employee performance lead organizations to enhance their current employees' training programs and to hire new ones with higher effectiveness. This paper contributes to HR and training specialists by providing them with knowledge about how to design training programs effectively in their applications.

Keywords - Human resource management; organizational performance; personal traits; training transfer; training effectiveness

I. INTRODUCTION

In the organizations convened particularly for profit, it is essential to get in return for the investment made or to measure the return of the investment made. With the request of the human resource managers of the enterprises, educating and developing trainings are designed for the employees of the enterprise. Educating and developing programmes, for which the enterprises allocate large amounts of resources, are expected to be efficient. As for the efficiency of training, it depends on many internal and external factors. These factors may result from the employee as well as the factors beyond the control of employee. Furthermore, the factors resulting from the employee or organization/environment are also in interaction with each other. So then, even if the isolation of organizational performance from the training is put into practice; in such a case individual, organizational/ environmental factors need to be introduced, which enable the training to be efficient namely enable the training to achieve its goal. The calculation of the return of the investments made in training is a quite difficult process due to many reasons. The discrimination of the effect of the investment made in training from that of the other investments leads to a major difficulty in itself. Another reason raising difficulty in the calculation of contribution made by the investment in training to the performance of enterprise, on the other hand, is that a very long period of time is needed in order to monitor the effect made by the investments in training. On the other hand, it may not be revealed easily whether the contribution of the training to the performance of the enterprise results from the characteristics of the employee, or organizational structure of the enterprise or environmental factors beyond the control of the employee. Various research performed until today have found out that there are different factors having effect on the efficiency of training. In some of the research taking part in the literature, the factors resulting from the employee (individual factors), the factors encompassing the employee (organizational and/or environmental factors) have been taken into account for the purpose of researching the efficiency of the training, while the effects of aforementioned factors on the training transfer have been studied in some research. In the research performed by Elangovan and Karakowsky (1999), the factors resulting from the employee were examined dividing as the ones relating to motivation (Perceived Relevance, Desire of Participating in the Training, Expected Results, Self-Efficacy, Bondage) and the ones relating to ability (Knowledge Acquisition, Identifying Situations). As for the Environmental Factors, they were divided into two parts as the ones relating to the job (Job specifications, Norm and Group Pressure, Contextual Similarity, Manager Support) and the ones relating to the organization (Reward System, Organizational Culture). For the purpose of introducing the training transfer, the factors having influence on the learning such as their attitudes to training, their self-efficacies, ability, auditing focus, bonding, career etc. were handled in relation to the ones participated in the training. (Maclin and Fogarty, 2004). In another research, the factors having effect on learning motivation and transfer motivation were examined and afterwards the effect of learning motivation and transfer motivation on the training transfer were attempted to be ascertained. (Kontoghiorghes, 2004). In the aforementioned study; personal ability, personality features, personal motivation, learning styles, training concept, manager support, colleague support, job definition, career, actuality of training, possibility of applying new knowledge and abilities, reward system, organizational strategy etc.
were handled as the factors having effect on learning motivation and transfer motivation. The relationship of each factor with learning motivation was examined, afterwards it was stated in this study that it contributed to training transfer. In the structural efficiency model developed by Mathieu, Tannenbaum and Salas (1992), “career planning”, “bondage”, “job satisfaction”, “situational conditions”, “attitude to training”, “response against training” were taken into account as the factors having effect on training motivation and learning phenomenon. In the research performed by Clarke (2002), training transfer was attempted to be defined, by being handled as the factors affecting the individual properties of the employees participating in the training, the structure of the training and working environment, efficiency of learning. With the structural model for training assessment set forth by Carey and Gregory (2003) concerning the assessment of the efficiency of training, the considered factors consist of employee properties, learning environment, training contents, motivation, learning guide, active participation and the integration of the contents; and in this study, the efficiency of training was attempted to be determined by means of the factors related to certain individual properties, environmental conditions and training material. In addition to the application models explained briefly above regarding whether the educating and developing trainings, which the enterprises provide to their employees, achieve the desired goal or not; thousands of pilot studies on environmental and individual factors that might be important in the trainings of trainees have taken part in the literature. In the pilot studies, the participators were addressed statements related to individual and environmental factors for the purpose of revealing the efficiency of training activities intended for educating and developing. In a field research, again the statements including the factors having effect on educating and developing training were asked to an educating and developing training group of 56 persons in order to reveal the efficiency and/or transfer level of training. (Fortheringham, 1986). Individual and environmental factors are sometimes held limited in field studies performed with respect to the educating and developing training activities while they are held broader in some research. (Tracey, 1997). It may not be exact and reliable if to what extent the level of the efficiency of training or its transfer takes place is reported by the trainees. However; Gist, Bavetta, and Stevens (1990) developed a model introducing the ability and performance increase, which are the indicators of training transfer to a subject group of 56 persons and ability gaining levels in general. In a study that they performed, Elangovan and Karakowsky (1999) asserted without performing field research that some factors related with workplace and personality have a role in training transfer and/or efficiency and researched the effect of conditions resulting from the employee and environmental conditions on the trainings and the coherences amongst each other of these factors. When Rochford (2003) performed a research taking 56 students in his field study in order for the assessment of the efficiency of learning activity, he took into account the individual preferences and the factors concerning training environment. Different approaches and models introducing the training transfer were also constituted. For example, the models adding financial dimensions into the four stage assessment models of Kirkpatrick were suggested for the purpose of calculating the return of training investment. While in some studies, the return of investment made in training was calculated viewing the increase of knowledge and ability increase or the increase of behavioural abilities of the trainees. Russell, Wexley and Hunter (1984) attempted to measure the knowledge and abilities gained in the end of training of 44 subjects and 22 control subjects addressing statements in a study similar to that and the behavioural properties gained were attempted to be modelled. In this study, the researcher attempted to measure the knowledge and abilities by means of a limited number of subjects, which the trainees gained due to the training and attempted to model the behavioural properties in the end of training. In this research; desire of learning, desire of participating in training, career expectation, learning styles, attitudes to the job, attitude to training, self-efficacy, auditing focus, emotional dedication to organization were handled respectively as the factors contributing to the efficiency of training and directly resulting from the individual. Desire of the person to learn, who receives training, is handled as an important factor as one of the factors having effect on the efficiency of training. Some researchers attempted to explain the desire of learning in the efficiency of training within the scope of expectation theory of Vroom. In the studies performed, desire of learning was regarded as associated with reliance on the organization and job satisfaction.(Bowers, Salas, Tannenbaum and Mathieu, 1995). Voluntary participation in training is regarded as a significant factor in the employees’ finding the training beneficial. The employees who are usually asked to participate in the training compulsorily keeps negative attitudes against training and the desirable benefit may not be obtained from the training. In a research which they performed regarding the decisions of trainees to participate in training programmes, Hicks and Klimoski (1987) revealed that the ones willing to participate in the training were considerably satisfied with the training, more than the ones willing less, and they had more will to learn, reacted more positively and showed better performance in achievement test. Similarly, Ryman and Biersner (1975), with the research they performed, discovered that having a preference for participating in a training or not ensured a higher training achievement. In a laboratory experiment they performed; Baldwin, Magjuka and Loher (1991) set forth that when the trainees were given the chance of making selection among a few programmes and participation in the programme according to their selections ultimately, these individuals had more learning motivation prior to the training and learned more in comparison to the ones given no chance of making selection. The research have revealed that career expectation of employee has a positive effect on desire of learning. Accordingly, desire of learning may be regarded as a direct function of perception of the employee participating in training, regarding whether the training will avail for his
career (Kontoghiorghes, 2001). Therefore, career expectation has an effect on the efficiency of training indirectly. If the employee has a career expectation, he/she believes the training will bring career opportunities for him/her, and that increases his/her motivation towards training. The research have shown that various personality features play a role in the efficiency of training. One of the aforementioned personality features, on the other hand, is self-efficacy. Some research have revealed that self-efficacy correlates with job performance. From this point of view, the transfer of aspects learned in training appears easier in the persons having self-efficacy in comparison to the ones not having self-efficacy (Bowers, Salas, Tannenbaum, and Mathieu, 1995). Locus of control is another personality trait that is considered to be related to the effectiveness of training. The research of Baumgartel, Reynolds and Pathan proves that. Noe and Schmitt suggest that the managers, who has higher achievement needs and has an inner locus of control, are more capable of carrying the new information, which they acquired in training, to the workplace environment and they also suggest that locus of control is less effective on motivation before training (Noe and Schmitt, 1986). It is a fact that each individual has a different way of learning. Learning styles may vary from person to person. However, the training sessions in workplaces do not consider these differences in employees’ learning styles. Consequently, the employee, who received a training that is appropriate for his/her learning style will derive more benefit than the employee, who received a training that is not appropriate for his/her learning style. From this point of view, the level of reflecting what he/she had learnt to the workplace environment may differ in accordance with the learning style. The attitude against work is an effective factor on internalizing the training and reflecting this to their behaviors. To explain the attitude against work better, the subtitles of attitude against work, such as work satisfaction, organisational commitment and commitment to work are tried to be presented. Work satisfaction is defined as “gracious and positive feelings that are generated as a result of the evaluation of work and work experience of the individual” (Locke, 1983). If we are to literally express work satisfaction, we can say that it shows the “gratification or dissatisfaction that the individuals feel at work” (Davis and Newstrom, 1998). If an individual’s work environment and his/her attitudes are inconsistent, this individual will eventually feel disappointed; and this situation negatively affects the desire for learning (Clarke, 2002). On the other hand, the research prove that the essential factors, such as workload-related stress, resource deficiency, not being able to make their own decisions about work, are negatively related with efficiency of training (Awoniyi, Orlando and Morgan, 2002).

Organisational commitment is the employee’s empathy level with the organisation. On the other hand, organisational commitment implies the level of importance that the employer ascribes to the work (Blau, 1985). Comparing to others, it is considered that workaholics yearn to be more successful in trainings. Dixon ascertained that there is not any relationship between level of fancying the training sessions and after-training success tests (Dixon, 1990). Warr and Bunce, on the other hand, stated that there is not any relationship between the level of fancying the training sessions and test results that measure the learning levels (Warr and Bunce, 1995). Besides the individual factors mentioned above, some of the factors that determine the efficiency of training may arise from environmental/organisational features beyond the employee. Environmental and/or organisational factors are not directly related to the employee. In this study, teaching style of the trainer, managerial support and peer support has been respectively discussed as the contributive and indirect environmental/organisational factors. The underlying thought behind this evaluation is the idea of the effects of environmental factors on learning motivation and on carrying these information into practice (Wendy, Leimbach, Holton and Bates, 2002). Therefore, learning is affected by both individual factors and environmental factors. Selecting appropriate teaching styles for learning styles is an important element for the efficiency of training. At this stage, it would be beneficial to help trainees to develop strategies that can adopt them to various situations (Vaughn and Baker, 2001). Active learners can adapt to the teaching style. Relations of the employee with the social environment (colleagues, managers) in the work environment have an important role in putting the learnt knowledge into practice (Kontoghiorghes, 2004). It is known that the encouragement and guidance of the managers have an important role in employee’s active learning process. One of the most important factors for effective learning is the support of managers and colleagues about carrying what the employee had learned into the work environment (Kontoghiorghes, 2004). Both the behaviors of the superiors and the colleagues have an important role in employee’s success in carrying the knowledge and skills into work environment. It has a facilitating role when the superiors and colleagues give him/her a chance to carry the knowledge and skills into practice (Weiss, Huczynski and Lewis, 1980). Managerial support is an important factor that affects the efficiency of the training. When the employee thinks that he/she can apply the acquired knowledge and skills with the support of his/her manager, he/she will be more enthusiastic for training. Another factor that affects the efficient actualisation of the training is the support of colleagues. Support of the colleagues will help the employee to apply in the workplace what he/she had learned from training.

II. METHODOLOGY

This study is executed on employees of a medium scaled bank, who has participated in subject training, by taking one of the technical trainings as a basic. The purpose of this study is to reveal the individual and environmental factors related to the efficiency of the trainings.

III. DATA COLLECTION TOOL

To collect data, survey method has been used. The scales in this study are the measures that have been used in other
studies before. The inclination to participate in this study, attitude towards training, managerial support and self-sufficiency scales have been developed by Guerro ve Sire (2001); will to learn scales have been developed by Tharenou (2001); locus of control scales have been developed by Burger (1986); work satisfaction scales have been developed by Curri Van (1999); organisational commitment scales have been developed by Meyer, Allen and Smith (1993); commitment to work scales have been developed by Kanungo (1982); scales of support of colleagues and teaching style of the trainer have been developed by the researcher himself. All of the scales are on pentad Likert scale. On positive expressions, the evaluations have been made by giving 5 points to strongly and 1 point to strongly disagree. On negative expressions, exact opposite evaluation has been carried out. Cronbach α values that has been calculated to analyze the internal consistency of the scales and the scales are reliable within the scope of dimensions and all other expressions (α>0,60). The sample of this study are constituted by the employees that the participant bank has determined (a total of 57 individuals). In this study, survey method has been applied to all participants. A placement test is applied by the institute to the participants before the training; in accordance with the test results, three different groups are constituted by the individuals who considered to be in need of training. Each group received the same training program by the same trainer. Before-training surveys are applied to the participants before training. The placement test that has been applied at the beginning is repeated and the survey that has been prepared for after-training is applied. To do the before and after-training matchings, the names of the participants have been asked in all tests and surveys applied. At the end of the second placement test, it has been proved that the knowledge levels of 57 employees were at the desired levels at the end of the second placement test. Therefore, it is agreed that effective training is achieved for 42% of the participants.

IV. STATISTICAL METHODS

When the structural matrix of the model, which is illustrated in Table 1, has been analyzed, it can be seen that the most meaningfully (p<0,05) related (r>0,40) variables are “considering the learning styles” (r=0,82), “will to participate in trainings” (r=0,72), “teaching style of the trainer” (r=0,63) and “attitude towards education” (r=0,51). Despite their coefficients are low (r<0,40), the meaningful variables (p<0,05) following the above-mentioned variables are respectively: “career expectations” (r=0,30), “managerial support” (r=0,27), “commitment to work” (r=0,22), “work satisfaction” (r=0,21), “organisational commitment” (r=0,19) and “locus of control” (r=0,10). “Will to learn”, “self-sufficiency” and “support of the colleagues” variables were not statistically meaningful.

<table>
<thead>
<tr>
<th></th>
<th>Structural r</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Considering the learning styles</td>
<td>0,82</td>
<td>30,08</td>
<td>0,00*</td>
</tr>
<tr>
<td>Will to participate in trainings</td>
<td>0,72</td>
<td>23,26</td>
<td>0,00*</td>
</tr>
<tr>
<td>Teaching style of the trainer §</td>
<td>0,63</td>
<td>9,66</td>
<td>0,00*</td>
</tr>
<tr>
<td>Attitude towards education §</td>
<td>0,51</td>
<td>6,86</td>
<td>0,01*</td>
</tr>
<tr>
<td>Career expectations §</td>
<td>0,30</td>
<td>11,76</td>
<td>0,00*</td>
</tr>
<tr>
<td>Managerial support §</td>
<td>0,27</td>
<td>5,41</td>
<td>0,02*</td>
</tr>
<tr>
<td>Will to learn §</td>
<td>0,24</td>
<td>2,07</td>
<td>0,16</td>
</tr>
<tr>
<td>Commitment to work §</td>
<td>0,22</td>
<td>5,88</td>
<td>0,02*</td>
</tr>
<tr>
<td>Work satisfaction §</td>
<td>0,21</td>
<td>9,58</td>
<td>0,00*</td>
</tr>
<tr>
<td>Organisational commitment §</td>
<td>0,19</td>
<td>13,35</td>
<td>0,00*</td>
</tr>
<tr>
<td>Self-sufficiency §</td>
<td>0,11</td>
<td>2,96</td>
<td>0,09</td>
</tr>
<tr>
<td>Locus of control §</td>
<td>0,10</td>
<td>9,16</td>
<td>0,00*</td>
</tr>
<tr>
<td>Support of colleagues §</td>
<td>0,00</td>
<td>3,25</td>
<td>0,08</td>
</tr>
</tbody>
</table>

Box’s M= 4,310  F=1,376 p=0,248>0,05
Canonical Correlation=0,680
Wilks Lamda=0,537 Chi-square=31,70 p=0,000<0,01§ It is not included to the model. **p<0,01 *p<0,05
Stepwise method revealed a model by using only two variables as base. These variables are “considering the learning style” (standardized coefficient = 0.71) and “will to participate in training” (standardized coefficient = 0.58). Other variables are not included in this model. Accordingly, consideration of learning styles is the most important factor for the technical trainings to be efficient, in other words for the employees to learn new information and skills and to put these two into practice at workplace. The second most important factor is the will to participate in the trainings. So, it is important for the employee to willingly participate in these trainings; it is also important that the employee is eager to request to participate in the trainings. According to the classification matrix results, which have been acquired by applying the model to the existing data, the model is able to predict the efficiency of the training with 80.7% of success, considering the attitudes of the employees.

V. Conclusion

Recently, human resources managers have been making important efforts to measure the feedback of the trainings that they carry out. Notwithstanding that the effort to prove whether the trainings positively contribute the results or not is an important development; the factors, which are related to the employees that cause these contribution to be proved, are not decently considered. According to the results that are related to individual and environmental factors, it has been determined that the employees are eager to participate in and benefit from trainings within their institutes; that they are partly participating with their own consent; however, it has also been determined that the employees consider these trainings as contributors to their careers. It can be clearly seen after the training that the participants generally have a positive attitude towards the training, that they find the trainer adequate in terms of providing active participation and that they think that the trainer considered the learning styles of the participants. Discriminant analysis revealed a model by using only two variables as base. These variables are "considering the learning styles" and "will to participate in trainings". Other variables were not included in this model. Accordingly, consideration of learning styles is the most important factor for the technical trainings to be efficient, in other words for the employees to learn new information and skills and to put these two into practice at workplace. The second most important factor is the will to participate in the trainings. So, it is important for the employee to willingly participate in these trainings; it is also important that the employee is eager to request to participate in these trainings.

VI. References


