

MEASURING THE EFFICIENCY AND EFFECTIVENESS OF THE HUMAN RESOURCES TRAINING FUNCTION AT ORANGE JORDAN

Professor Mohamad Shehada,
Amman Arab University, Amman, Jordan,

Dr. Firas Alkhaldi,
Amman Arab University, Amman, Jordan,

ABSTRACT: *The objective of this paper is to measure the effectiveness and efficiency of the human resources training function at one of the telecommunication companies in Jordan "Orange Jordan". The target population for this study is 140 unit managers and their assistants at Orange Jordan. A total of 105 unit managers participated in the completion of questionnaires. Data analysis was done by factor analysis; explanatory and confirmatory data modeling and Cronbach's alpha-values and practical significance by means of effect sizes. The findings of the study stipulate that the primary function of training department today is to ensure the implementation of the standards of effectiveness and efficiency to accomplish an organization's goals and objectives. Using Training as a competitive advantage means analyzing the factors necessary for the organization's long-term success. Areas such as training design, training processes, training policies, effective trainer, training strategies, training goals and objectives are essential to this concept. In order to formulate appropriate competitive advantage through the effectiveness and efficiency of the training function, it is first recommended to analyze the firm's strategic needs. The training department should create a complete model of training function and a more coherent attempt must be made to improve the level of internal communication between the unit managers and their employees. This would create an environment within Orange Jordan that can promote mutual respect, trust and concern between management and employees.*

KEYWORDS: Efficiency, Effectiveness, Training, Induction, confirmatory factor analysis.

INTRODUCTION

The Human Resources (HR) functioning is changing with time and with this change the relationship between the training function and other management activity is also changing. The training activities are now equally important with that of other HR functions. Gone are the days when training was considered to be useless and a waste of time. If training is not considered as a

priority or not seen as a vital part in the organization, then it is difficult to accept that such a company has effectively carried out its duties. Training actually provides the opportunity to raise the profile development activities in the organization. To increase the commitment level of employees and growth in quality movement (concepts of HRM), senior management team is now increasing the role of training. Such concepts of HRM require careful planning as well as greater emphasis on employee development and long term education. Training is considered now as an important tool of Human Resource Management to control the attrition rate and it helps in motivating employees, achieving their professional and personal goals and increasing the level of job satisfaction.

It is important not only to identify Training competencies in correspondence with the business needs and to develop training practices to secure those competencies, but also to evolve and implement a performance evaluation plan that links the performance of the employees to the business firm objectives. Knowledge is important for organizational performance, and by implementing an effective and efficient training strategy to develop the knowledge and “knowhow”, and then a company will understand the value of training. Measuring the efficiency and effectiveness of the Training function then would be the key to make sure whether the training department is on the track in achieving the needed outcomes or not.

Objectives of the Study

The first objective of this study was to assess the impact of the human resource training at Orange Jordan at employees’ efficiency. This was accomplished by determining the impact of human resource training on setting standards, systems, processes and structure. The second objective was to find out the impact of human resource training on effectiveness and this was done through cost reduction, setting goals and objectives. The third study objective was to identify any differences in human resource training and the degree of efficiency and effectiveness by the mediating factors (age, gender, level of education, employment department, years of experience and employment level).

Research Problem

Orange Jordan has a well-established training department. As a part of the HR cycle, it is always good to check the performance of the functions in this cycle in terms of standards, systems, processes, structures, cost reduction and goals and objectives. So the purpose of this research is to measure the effectiveness and the efficiency of the training function at orange Jordan and all that will be clarified after answering the following questions:

1. Is the training function at Orange Jordan efficient?
2. Is the training function at Orange Jordan effective?

3. Are there difference of the Mediating factors (age, gender, level of education, employment department, years of experience and employment level) related to HR training function?
4. Are there difference of the Mediating factors (age, gender, level of education, employment department, years of experience and employment level) related to efficiency?
5. Are there difference of the Mediating factors (age, gender, level of education, employment department, and years of experience and employment level) related to effectiveness?

Research Importance

As the number of workers increases, and businesses are looking for competitive advantages to be able to survive, training human resources is a must. Therefore, the importance of this research is linked to the significance of developing unique effective and efficient training practices at orange that affect both the manpower and their productivity.

Research Hypotheses

Ho1: The HR training function at Orange Jordan has no significant level ($\alpha=0.05$) on efficiency with its indicators “setting standards, systems, processes, and structure”

Ho2: The HR training function at Orange Jordan has no significant level ($\alpha=0.05$) on effectiveness with its indicators (cost reduction, setting goals and objectives)

Ho3: There are no significant differences at a significant level ($\alpha=0.05$) of the mediating factors “age, gender, level of education, employment department years of experience and employment level” related to HR training function.

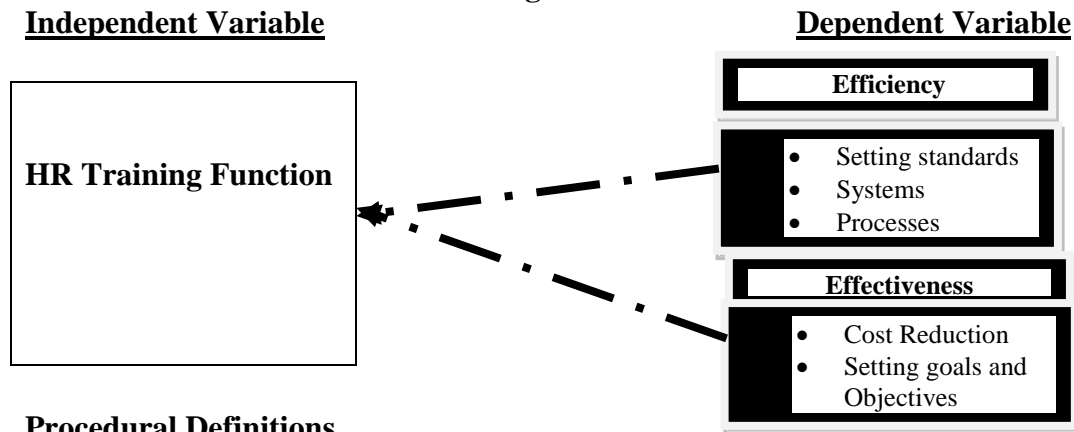
Ho4: There are no significant differences at a significant level ($\alpha=0.05$) of the mediating factors “age, gender, level of education, employment department years of experience and employment level” related to efficiency.

Ho5: There are no significant differences at a significant level ($\alpha=0.05$) of the mediating factors “age, gender, level of education, employment department, years of experience and employment level” related to effectiveness.

Research Model

An overview of the research model is presented in Figure 1. The model articulates the independent and dependent variables.

Figure 1

**Procedural Definitions****Efficiency**

It is the ratio of outputs to inputs. A measure of how well resources are used to achieve a goal “Doing Things Right”. The levels of efficiency are:

- Organizational: added value per employee, profit per employee, sales value per employee, costs per employee and added value per £ of employment costs.
- Employee behavior: retention and turnover rates, absenteeism, sickness, accident rates, grievances, disputes, references to employment tribunals, successful suggestion scheme outcomes.
- HR service and outcomes: time to fill vacancies, time to respond to applicants, ratio of acceptances to offers made, cost of replies to advertisements, training days per employee, time to respond to and settle grievances, measurable improvements in organizational performance as a result of HR practices, ratio of HR costs to total costs, ratio of HR staff to employees, the achievement of specified goals.

Effectiveness

It is the degree to which the organizations output correspond to the need and wants of the external environment that include customers’ suppliers’ competitors and regulatory agencies. A measure of the appropriateness of the goals chosen (are these the right goals?), and the degree to which they are achieved “Doing the Right Things Right”

Productivity = Efficiency x Effectiveness

Training

Training is the use of systematic and planned instruction activities to promote learning. The approach can be summarized in the phrase ‘learner-based training’. It involves the use of formal processes to impart knowledge and help people to acquire the skills necessary for them to

perform their jobs satisfactorily. It is described as one of several responses an organization can undertake to promote learning.

Induction

Induction is the process of receiving and welcoming employees when they first join a company and giving them the basic information they need to settle down quickly and happily and start work. Induction has four aims:

- *To smooth the preliminary stages when everything is likely to be strange and unfamiliar to the starter;
- *To establish quickly a favorable attitude to the company in the mind of the new employee so that he/ she is more likely to stay;
- *To obtain effective output from the new employee in the shortest possible time;
- *To reduce the likelihood of the employee leaving quickly.

LITERATURE REVIEW

The role of the HR training function is to enable the organization to achieve its objectives by taking initiatives and providing guidance and support on all matters relating to its employees. The basic aim is to ensure that the organization develops HR strategies, policies and practices that cater effectively for everything concerning the employment and development of people and the relationships that exist between management and the workforce. The HR function can play a major part in the creation of an environment that enables people to make the best use of their capacities and to realize their potential to the benefit of both the organization and themselves.

Essentially, the HR function provides the advice and services that enable organizations to get things done through people. It is in the delivery business. Ulrich (1998) points out that: 'The activities of HR appear to be and often are disconnected from the real work of the organization.' He believes that HR 'should not be defined by what it does but by what it delivers'. The more sophisticated HR functions aim to achieve strategic integration and coherence in the development and operation of HRM policies and employment practices. Strategic integration could be described as vertical integration – the process of ensuring that HR strategies are integrated with or 'fit' business strategies. The concept of coherence could be defined as horizontal integration – the development of a mutually reinforcing and interrelated set of HR employment and development policies and practices.

It is necessary to evaluate the contribution of the HR function to ensure that it is effective at both the strategic level and in terms of service delivery and support. In general it is useful to remember the distinction made by Tsui and Gomez-Mejia (1988) between process criteria – how well things are done the effectiveness of the end-result. 'Utility analysis' approach as described

by Boudreau (1988) can be used. This focuses on the impact of HR activities measured wherever possible in financial terms (quantity), improvements in the quality of those activities, and cost/benefit (the minimization of the cost of the activities in relation to the benefits they provide). Huselid et al (1997) believe that HR effectiveness has two dimensions: firstly, strategic HRM – the delivery of services in a way that supports the implementation of the firm’s strategy; and secondly, technical HRM – the delivery of HR basics such as recruitment, compensation and benefits.

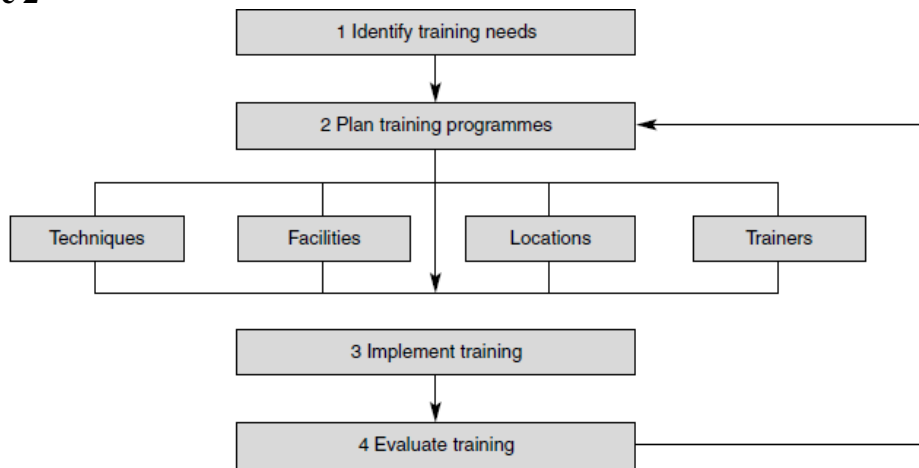
The justification for training

Formal training is indeed only one of the ways of ensuring that learning takes place, but it can be justified when:

- The work requires skills that are best developed by formal instruction;
- different skills are required by a number of people, which have to be developed quickly to meet new demands and cannot be acquired by relying on experience;
- the tasks to be carried out are so specialized or complex that people are unlikely to master them on their own initiative at a reasonable speed;
- critical information must be imparted to employees to ensure they meet their responsibilities;
- a learning need common to a number of people has to be met, which can readily be dealt with in a training program, for example induction, essential IT skills, communication skills.

Systematic training

Training should be systematic in that it is specifically designed, planned and implemented to meet defined needs. Figure (5) show the systematic training model:

Figure 2

Systematic training model

Challenges in Training

Upgrading employees' performance and improving their skills through training is a necessity in today's competitive environment. The training process brings with it many questions that managers must answer. Included in these questions are: Is training the solution to the problems? Are the goals of training clear and realistic? Is training a good investment? Will the training work?

Phases of Training

Phase 1: Needs Assessment and Establishing Objectives

In order to compete effectively, firms must keep their employees well trained. The overall purpose of the assessment phase is to determine if training is needed and, if so, to provide the information required to design the training program.

Phase 2: Delivering the Training

The training program that results from assessment should be a direct response to an organizational problem or need. Approaches vary by location, presentation, and type. These are summarized below:

1. Location Options

- a. On the job: Training is at the actual work site using the actual work equipment
- b. Off the job: Training away from the actual work site. Training is at a Training facility designed specifically for Training

Phase 3: Evaluating Training

The credibility of training is greatly enhanced when it can be shown that the organization has benefited tangibly from such programs. Organizations have taken several approaches in attempting to determine the worth of specific programs. In this phase, the effectiveness of the training is assessed. Effectiveness can be measured in monetary or non-monetary terms. It is important that the training be assessed on how well it addresses the needs it was designed to address.

METHOD

Survey and Procedure

Data were collected from 105 individual in Jordan telecommunication company (Orange). A questionnaires were distributed to a total of (140) respondents. They were free to answer the questionnaire anonymously. Of the 140, (105) completed the questionnaires. A percentage of (75%) were retained and analyzed. The value of Cronbach's alphas ranges from (0.40) to (0.84), which indicated an adequate internal consistency of the developed scales. In addition to the sample size requirement, there were two basic assumptions to be met for factor analysis: normality and correlation among variables. Skewness and kurtosis indicators were used to test the normality assumption, and it verified that all variables tested in this study were all normally distributed. Kaiser–Meyer–Olkin measure of sampling adequacy (KMO) ranges from (0.49) – (0.83) which indicates that there were sufficient inter-item correlations within the data for performing factor analysis.

Sample Characteristics

The respondents' age ranging from 22 to above 40s, from 22-31 constitute (76%) of the sample and they have been at the present job for an average of 2.9 years but demonstrate an immense variation, ranging from 1 year to more than 10 years. Most of the respondents' titles were executive employees (81%), and the next frequent position was senior managers (19%). The most frequent level of education was reported as BA degree, (95%) and the next frequent level of education was Diploma at (5%). Approximately (71%) were females.

Data Analysis, Explanatory Factor Analysis

Effectiveness domains; Cost reduction (CR), The Factor analysis showed a one-factor solution of the CR construct two items remaining after the removal of three items as they were deemed unacceptable by the initial factor analysis, the loading factor range from 0.81 to 0.87, this factor explains (50.6%) of total variance explained (TVE). The factor analysis demonstrate a clear discriminate validity as all items are loaded on one factor, and Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy was (0.49) which show that the sample is enough to achieve this

test, reliability was calculated based on Cronbach's alpha, the measure was (0.64) which demonstrate a reasonable reliability for accountability, See Table 1 below.

Effectiveness domains; Objectives (OBJ), The Factor analysis showed two-factor solution of the OBJ construct, they were named as Setting Goals (item 1,4,and 5) and Activating Objectives (items 2, and 3) all items were passed the initial factor analysis, the loading factor range from (0.43) to (0.83), the two factors explains (58.7%) of total variance . KMO Measure of Sampling Adequacy was (0.40). Reliability was calculated and the measure was (0.64) which demonstrate a reasonable reliability. See Table 1below.

Efficiency domains; Standard (STD), The Factor analysis showed a one-factor solution of the STD construct four items remaining after the removal of one item as it was considered unacceptable by the initial factor analysis, the loading factor range from (0.70) to (0.88) this factor explains (68.7%) of total variance explained. The factor analysis demonstrate a clear discriminate validity as all items are loaded on one factor, and KMO Measure of Sampling Adequacy was (0.79) which show that the sample is enough to achieve this test, reliability was calculated based on Cronbach's Alpha, the measure was (0.84) which demonstrate a reasonable reliability. See Table 1.

Efficiency domains; Systems (SYS), The Factor analysis showed a one-factor solution of the SYS construct. All items were accepted as they were considered adequate by the initial factor analysis, the loading factor range from (0.72) to (0.90), this factor explains (50.6%) of total variance explained (TVE). The factor analysis demonstrate an clear discriminate validity as all items are loaded on one factor, KMO Measure of Sampling Adequacy was (0.49) which show that the sample is enough to achieve this test, reliability was calculated based on Cronbach's Alpha, the measure was (0.64) which demonstrate a workable reliability. See Table 1.

Efficiency domains; Process (PORC), The Factor analysis showed a one-factor solution of the PROC construct. Only five items were accepted as they were considered adequate by the initial factor analysis, six items were removed as the factor loading were below (0.5). The remaining items' loading ranges from (0.71) to (0.90), this factor explains (56.3%) of total variance. KMO Measure of Sampling Adequacy was (0.83) and the reliability was 0.84 which demonstrate a strong reliability. See Table 1.

Table (1) Factor analysis and reliability test results

Factor Code	Factor name	KMO	TVE	Factor ranges	loading	Cronbach's alpha
EFFC-CR	Cost reduction	0.49	50.6%	0.81 - 0.87		0.64
EFFC-OBJ	Objectives	0.51	58.7%	0.43 - 0.83		0.40
EFFY-STD	Standard	0.80	68.9%	0.70 - 0.88		0.84
EFFY-SYS	Systems	0.61	66.7%	0.72 - 0.90		0.72
EFFY-Proc	Process	0.83	56.3%	0.71 - 0.90		0.84

Principal Component Extraction and Varimax Rotation with Kaiser Normalization Evaluative Criteria of the Confirmatory Factor Analysis Model Fit Confirmatory factor analysis

To confirm the factor structure, the researchers conducted CFA using EQS 6.1. Several indices are available to express the fit to the underlying data. The most commonly used indices are Chi-square, Goodness-of-fit Index (GFI), Goodness-of-fit Index (GFI), and Comparative Fit Index (CFI). The two-step approach was adopted for examining the measurement model and following the structural model. In the measurement model, the hypothesized relationship between the a number of performance (EFFY, EFFC) attributes and the two first-order factors were examined to determine how well the relationships fit the data. In the structural model, the focus was on the relationship between the two first-order latent factors—EFFC and EFFY and one second-order latent factor.

Second-order CFA involved the evaluation of the relationship between the two first-order factors (EFY and EFC) and a second-order factor (TRN). In other words, the structure model examined how the two performance value factors contributed to an overall Training construct. The results of the structural model generated a non-significant χ^2 value of 199, which indicated that the data fit the model very well. Other fit indices revealed similar results CFI=.99; GFI=.98, IFI=0.98). The beta coefficients represent the regression of exogenous factors (TRN) on endogenous factors (EFFY, and EFFC) (Fig. 1). As is shown in Fig. 1, “EFFC, EFFY” has the approximately the same beta coefficient (beta=.99, 0.98). This indicates that, both effectiveness, an efficiency can explain the variance in Training. Thus, it was concluded that HR manger should be more concerned about both effectiveness and efficiency practices.

Assessing the fit of individual parameters in a model was performed by determining the viability of their estimated values. The completely standardized factor loadings for each indicator are listed in Table 2 and 3. The results showed that all loadings in the model were significant (t -value >1.96), and the indicators loaded very well on their respective factors. Since all items were loaded on their designated factors, and were substantially explained by latent factors, it was concluded that the relationships between the TRN attributes and the two latent factors were confirmed by the data.

Goodness of fit Measures				Reliability tests
Training (TRN)	$X^2:199$	GFI:0.98	CFI:0.99	IFI:0.98
				Alfa:0.93

Second order confirmatory factor analysis results (non-standardized) for the TRN construct

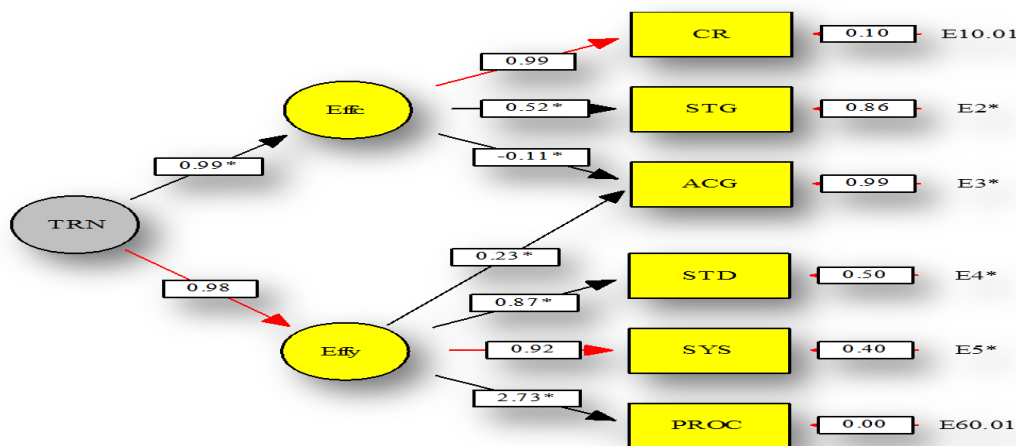


Table 2: Summary of the goodness of fit for the CFA and reliability tests

X^2 , Chi-square; GFI, Goodness-of-fit index; CFI, Comparative fit index; BOLLEN'S fit index; C.A., Alpha

The review of the hypothesised model reveals an accepted t -value of the completely standardised coefficient of both TRN \rightarrow EFFY and TRN \rightarrow EFFC. The CFA model was estimated with three latent variables (TRN, EFFY and EFFC), and two paths. The structural equation fit of the endogenous construct is as follows (see table 3).

- The coefficient of determination R^2 of the TRN (regression path: EFFY \rightarrow TRN) = 0.99 shows that (98%) of the total variance in TRN construct was accounted for by the Efficiency.
- The coefficient of determination R^2 of the TRN (regression path: EFFC \rightarrow TRN) = 0.57 shows that (57%) of the total variance in TRN construct was accounted for by the effectiveness.
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Table (3): Training direct relationship

KOC Constructs	β ;(Ttest)	R ²
TRN= $\pm\beta f$ (EFFY)	0.99;(8.24)	0.98
TRN= $\pm\beta f$ (EFFC)	0.75; (N/A)	0.57

EFFY f (TRN): a significant relationship (beta = 0.99) with Ttest value =8.24 was found between TRN and EFFY. This indicates that Training which is centred around cost reduction, sitting objectives, and acting goals. The findings of this model revealed that hypothesis H1, which predicts a direct positive relationship between TRN and EFFY was not rejected. The statistics on the hypothesised relationship are presented in table 3.

EFFC f (TRN): a significant relationship (beta = 0.75) was found between TRN and EFFC. This indicates that effectiveness is centred on process, standards, and systems. The findings of this model revealed that hypothesis H2, which predicts a direct positive relationship between TRN and EFFC was not rejected. The statistics on the hypothesised relationship are presented in table 4.

Table (4): Efficiency domain factors

Label	β :EFFC;(Ttest)	R ²
CR	0.99; NA	0.99
STG	0.28;3.69	0.08
ACG	0.028;(0.22) – insignificant relations	0.022

Table (5): Effectiveness domain factor

Label	β :EFFY;(Ttest)	R ²
STD	0.54;5.97	0.29
SYS	0.29; NA	0.09
PROC	0.99; 13.11	0.99
New proposed Relation direction from ACG moved from EFFY to EFFC		
ACG	0.17; Significate relation	0.022

CONCLUSIONS

As established throughout the research paper, and most importantly as statistically proven, one factor that can set performance of an HR function apart from the other functions, in the whole company is its efficiency and effectiveness. The quality of training, the change it brings, the development and satisfaction of employees with the training cycle have a significant impact on the department productivity, which we defined earlier as the efficiency and effectiveness. In other

words, in a competitive environment, following the efficiency and effectiveness standards make a difference. Human resources training function is a critical component in every area of the organization, from finance to sales to customer service to line management. The primary function of training department today is to ensure the implementation of the standards of efficiency and effectiveness and to accomplish an organization's goals and objectives.

In order to formulate appropriate competitive advantage through the efficiency and effectiveness of the training function, it is first necessary to analyze the firm's strategic needs. The training department should create a complete model of training function. The sample organization, namely Orange, proved to be amongst those organizations that are aware of the fact that the implementation of the training function has an impact on Oranges' efficiency and effectiveness standards and that make a difference in the performance of the HR Unit and the organization as a whole.

RECOMMENDATIONS AND SUGGESTIONS FOR FUTURE STUDIES

From the numerous available reading materials, cases, and research results, the following few generalized recommendations can be made for achieving the efficiency and effectiveness of the training function:

1. All knowledge and technology industries, such as telecommunications in this respect, rely substantially on training function to spread knowledge and that is considered as an intangible assets. Therefore, firms are expected to make sure that the standards of efficiency and effectiveness are met.
2. Designing "internal training employee handbooks" will help employees know their training path and the kind of training they might need to developed themselves in their career path.
3. Promoting performance feedback that gives the training team a chance to know their weakness and strengths.
4. The Training function effectiveness can be increased by improving the matching between the different departments and units requirements and expectation and the delivery process.
5. Last but not least, the researcher recommends that Training should be integrated to strategic plans as a rule which provide a framework for identifying areas of Training policy.

The propositions and ideas presented in this paper need further empirical testing. Future research needs to address how training practices could be an indicator for the productivity of the employees which reflects on the total productivity of the company.

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