

Factors Affecting the Effectiveness of Training: A Comparative Study on Private Commercial Banking and Telecom Industry in Bangladesh

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Abstract

The study examines the factors that ensure the effectiveness of training in private commercial banking industry and telecom industry of Bangladesh and makes a comparison between these two industries in the aspect of factors related to training. In order to conduct the study, secondary data were collected from different books, articles, and online sources and primary data were collected through questionnaire from 200 employees of different private commercial banks and telecom companies of Bangladesh. The results of regression analysis showed that all the factors except training environment are significant in ensuring the effectiveness of training in private commercial banking industry of Bangladesh. On the other hand in telecom industry other than management support, all the factors play a crucial role in ensuring the effectiveness of training. So, the companies of Bangladesh should take these factors into the consideration in ensuring the effectiveness of training and attaining of training desired goal.

Keynotes: Training, Training effectiveness, Factors affecting training, Factor analysis, Regression.

Introduction

Training is crucial to the progression and economic welfare of a nation. Employee training has been a matter of great concern to any business organizations at the present time. Organizations recognize that employee training is an indispensable element to upturn competence of job performance and keep their business running smoothly, as the level of competition is becoming more intense. Training is a process by which people attain knowledge, enhance skills and shape up attitudes that they need to perform to do the jobs well for the accomplishment of their organizational short term and long term goals. Training is a learning experience which pursues a relatively permanent change in an employee in order to improve individual's capability to accomplish his or her organizational goal (De Cenzo and Robbins 1996).

Training is one of the most basic human resource management functions in an organization directed at improving competence and productivity of the organization. Quite a lot of organizations admit that training can generate adroit workforce by an expensive investment in training. Training programs upgrade employee's performance with greater improved work quality, productivity, increased commitment and motivation (Yamnull and McLean 2001). Training is concentrated on the current job, the range of training is on individual employees. It helps employees attain specific skills that help them correct shortages in their performance (David, 2010).

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Training needs to be accompanied when there is necessity to advance performance and proper use of human resources and create employee's ability to operate tools of work or when there are freshers in the organization and it is needed to persuade them with the organizational environment.

However, very often it is comprehended that desired results are not yielded from the training programs. Employee productivity does not escalate in comparison to the training investment. It happens because of lack of training effectiveness. The effectiveness of training can be defined as the measurement of learning. It is identified by making the comparison between the post-test scores and pre-test scores and finally assessing the net change. Usually effectiveness measures are defined in the extent in which a set of objectives are achieved. A major objective of training is the abolition or upgrading of performance problems. To make a training program successful, it must possess clear defined and realistic goals (David, 2010). These goals will direct the program's content and define the conditions by which its effectiveness will be judged. Usually the company's training goal provide employees with an extensive understanding of the organization (Luis, 2010).

This paper aims at studying the factors that have a huge impact on the effectiveness of training in the perspective of private commercial banking industry and telecom industry in Bangladesh and makes a comparison of which factor of effectiveness of training impact most on which industry. The results of this study will have noteworthy implications in these two industries in Bangladesh. If the relationships between the factors related to training and the effectiveness of training are significant, the companies (private commercial banking industry and telecom industry) can take those noteworthy factors into their consideration to rectify the effectiveness of training.

Literature Review

Training is prepared when there are signs for training needs as directed by the number of accidents, production records, errors, expansion of production, bringing new technology, employee's turnover, promotion or advancements in career. According to Flippo (1971) training is an act of enhancing the skill and knowledge of an employee for completing his or her job. Similarly Beach (1980) observed that training is a systematized process by which people acquire knowledge and/or skills for a certain purpose.

Training is conducted to ensure the efficiency of the employees. And this efficiency is justified by the training effectiveness. An excellent source for measuring the training effectiveness in the public sector is from the trainee's level of self-efficacy and motivation (Yanson & Johnson, 2016). Training effectiveness is determined by the benefits that are expected from the employees after conducting the training program. That indicates whether the training program is worthwhile or worthless is determined by the training effectiveness. Training effectiveness may be positively or negatively affected by several variables from diverse ranges. Different authors at different time proved different factors affecting the effectiveness of training. Some of the literatures which have explored the factors affecting the training effectiveness are going to be discussed.

Grossman and Salas (2011) specified that work environment factors deliver trainees to display learned skills, knowledge, and attitudes once they arrive to the work setting. The work environment is essential and one of the vital factors to determine the learning in the training program, and is critical in shaping the implementation of skills in the workplace (Liao, & Tai, 2005). The work environment has prodigious effect on the training effectiveness. Numerous literatures give the suggestion of noteworthy relationship between environmental characteristics and training effectiveness, which has affected directly training outcomes (Elangovan&Karakowsky, 1999). An unsatisfactorily equipped training environment has an immense impact on the intake of the participants (Lendahls&Oscarsson, 2017).

Training motivation of employees characterizes a significant factor in cultivating the effectiveness of training outcomes (Tai, 2006). According to Dayal (2001), the major consideration that the trainer needs to be clear about two things, (i) that the training objectives are specific and (ii) that the training materials are appropriate one in achieving the stated results. Ridoutt (2001) found important relationship between demographic variables and training outcome. Tharenou (1995) in his study, determined that involvement in training was influenced by demographic factors such as age, gender and usage of career strategies as matched to other forecasters of organization performance.

There are some factors which influence training program in public organizations. Gupta (2006) recognized a number of factors as: technological change, job requirements, internal mobility, organization viability, and globalization.

The reward systems shape trainee attitude by attaining knowledge, and inspiring them to acquire new skills (Noe, 1986). On the other hand in another study, Burke & Baldwin, (1999) found that organizational culture, by generating a supporting context for training, plays an essential role in the course of knowledge and skill attainment and their on the job application.

The supervisors play a critical role in determining when and how the trainees can utilize trained skills, in clarifying the advantages from these training programs, in connecting the employees to start training programs, in providing adequate time for training preparation, in encouraging the trainees, in generating positive work groups and in inspiring seniors' attitudes toward employees (Elangovan&Karakowsky, 1999). Birdi (2005) established that poor managerial support or a hostile departmental climate could limit the effect of ingenuity in training. Unfavorable environment influences the training effectiveness. According to him training will be influenced negatively if there is less support from department or there is harsh condition for training.

Fischer & Ronald (2011) stated that open-mindedness is also an important mediator of training effectiveness. It has been shown that training becomes successful if the participants and trainer work with open-mindedness.

Driskell (2011) stated in his study that training content and trainee expertise direct the training outcomes. Success of a training program is determined by how the training was provided, what the content was and who the trainer was. In 2009, Haslinda&Mahyuddin found that absence of support from top management and peers, job related factors, employees' individual attitudes and also the shortages in training practice are the key factors that affect the effectiveness of training. Beigi&Shirmohammadi (2011) identified that emotional training has significant impact on service quality. It indicates that there is an association between behavior and learning, and service industry can be furthered by emotional training because service industry is fundamentally related to verbal communication and marketing. Saks &Haccoun (2007) discussed that psychological conditions of trainees especially motivation, perceived control and self-efficacy affect the training outcomes.

It is quite noticeable in today's times that diverse workforce and varieties of skill sets are available, thus training employees on various skill sets will help in effective adaptation and achieving organizational objectives. The more the amount of training will be provided, the more the benefits for the employees will be increased, that further enhance skills and capabilities of employees (Terrana et al., 2016).

Identification of the Problems

Numerous studies have carried out to identify the factors that are significant for training effectiveness in creating effective organizations. Particularly in banking and telecom industry, there are certain impact of some factors that still remain to be analyzed like effective and experienced trainers, management support, legitimate training needs, learner's ability and motivation, training environment in the context of Bangladesh. Also not many researches have tried to create interrelationship between these factors and effectiveness of training selection and make the comparison between the two industries related to the effectiveness of training. Most studies have concentrated on a single aspect of understanding outcomes of training and been concerned with only one direction whereas identifying the impact of effective and experienced trainers, management support, legitimate training needs, learner's ability and motivation, training environment on training effectiveness are not identified very specifically.

It is evident that all the preceding studies have concentrated on identifying the imperative contribution of training on effective outcome and employees performance but the impacts of different factors of training on training effectiveness is not identified specially by concentrating on making the comparison between different industries. More specifically in banking and telecom industries this sorts of studies have not found in the aspect of Bangladesh. So, here the endeavor is to fulfill this gap.

Research Objectives

The objectives of this study are to find out the factors that influence the effectiveness of training in banking & telecom industries of Bangladesh, to identify the level of relationship of those factors with the effectiveness of training and make a comparison between these two industries by identifying which factor of effectiveness of training influence most in which industry.

Methodology

This study has been done by a series of steps. First, review of literature was undertaken to identify the factors that have some contribution in training effectiveness. Then data were collected through a questionnaire survey from employees of banking and telecom industries in Bangladesh. Lastly, factor analysis was used to identify the factors that mostly affect training effectiveness. The factors taken were then used as inputs in regression analysis for examining the relationship between those factors and effectiveness of training.

It has taken three months to complete the study. The study has been directed based on both the primary and secondary data. Secondary data were collected from books, articles and online material. Primary data were collected by conducting a questionnaire survey. The questionnaire comprises of close ended question and developed by following five point likert scale. The survey was conducted on different private commercial banks and telecom companies of Bangladesh. 100 respondents were selected from each of the industry by using non-probability convenience sampling method and total sample size is 200.

The sample size is determined by the following formula-

$$n = \frac{Z^2 pq}{e^2}$$

Where,

n = Size of the sample

z = The value of standard variate at a given confidence level and to be worked out from table showing area under normal curve.

p = Sample proportion, q = 1-p

e = acceptable error

z = 1.96 at 5%, p=0.5, so q = 0.5

Here the sample size,

$$n = \frac{Z^2 pq}{e^2}$$

$$n = \frac{(1.96)^2 * 0.5 * 0.5}{0.069^2}$$

$$n = 201.68$$

The sample included 200 employees, where 100 respondents have been surveyed from private commercial bank and other 100 respondents selected from telecom companies of Bangladesh. The age distribution was impartially even as 65% were aged from 22 to 31 years, 25% were aged from 32 to 41 years, 5% were aged from 42 to 51 years and 5% were aged 52 years and more. The level of formal education showed that around 62% employees completed their post-graduation and 38% completed their graduation.

Description of data and variables

To measure the impact of the factors on the effectiveness of training, five-point Likert-type scale ranging from 1 (“strongly agree”) to 5 (“strongly disagree”) was used. There are 15 questions relating to 15 variables. Question 1 is labeled as V1; question 2 is labeled as V2 and so on. The variables were identified by reviewing various literatures. Variables that may affect the effectiveness of training are Management Support (Considerable amount of budget, Good climate for learning, Flexible work schedule), Effective and Experienced Trainer (Trainer’s knowledge, Experiences of trainers and Trainer’s dedication), Legitimate Training Needs (Valid needs assessment, Proper methods of needs assessment, Participation of the probable trainees), Learner Ability and Motivation (Readiness and willingness of learners, Trainee’s ability to learn and trainees’s interest in the benefits of learning) and Training Environment (Well organized training content, Decent decorated and convenient training site and Good lighting facilities, noise free room)

Effectiveness of training in the organization was measured by a single item; employees were asked to state their agreement to the statement: “Effectiveness of training is ensured by effective and experienced trainers, management support, legitimate training needs, learner’s ability and motivation, training environment” on a scale from 1 (strongly disagree) to 5 (strongly agree).

Tools used in the study

Factor analysis

Factor analysis is a data reduction or structure detection method which is used to reduce the number of variables and to draw the relationships between these variables. This can be identified by performing a series of stages. The first stage of factor analysis is *Data appropriateness*, it suggests that factor analysis may not be appropriate, *Factor extraction* where Kaiser’s criterion, Parallel analysis are done vigorously to determine the factors to be retained. The third stage is *Factor rotation, naming of the factor and obtaining factor score*, where the factors are rotated using varimax method. Factors are named on the basis of factor loading observing rotated component matrix. After the identification of factor name, factor scores are obtained using regression method and these factor scores were used as inputs in regression analysis to identify the relationship between those factors and the effectiveness of training.

Regression model

Multiple regression models have been used to investigate the relationship between different factors and the effectiveness of training. Five factors are expected to receive through factor analysis and the estimated factor scores have been included as inputs in regression analysis. The following regression model was suggested:

Effectiveness of training = $\beta_1 + \beta_2 \text{Learner's ability} + \beta_3 \text{Effective and experienced trainers} + \beta_4 \text{Management Support} + \beta_5 \text{Legitimate training needs} + \beta_6 \text{Training Environment} + u_i$

The following hypotheses were tested using regression model:

H₀: There is no relationship between learner’s ability and effectiveness of training ($\beta_2 = 0$).

H₀: There is no relationship between effective and experienced trainers and effectiveness of training ($\beta_3 = 0$).

H₀: There is no relationship between management Support and effectiveness of training ($\beta_4 = 0$).

H₀: There is no relationship between legitimate training needs and effectiveness of training ($\beta_5 = 0$).

H₀: There is no relationship between Training Environment and effectiveness of training ($\beta_6 = 0$).

The null hypothesis is rejected when calculated t value exceeds the critical t value at chosen level of significance.

Data Analysis

Multiple regressions are used in this study to see the effect of a set of independent variables on the dependent variable.

Factor analysis

In this study factor analysis has been done by using the following steps in order to identify the factors that have an impact over training effectiveness in private commercial banks and telecom companies of Bangladesh.

Data Appropriateness:

If the correlation coefficients is above 0.3 then it indicates the variables are fairly well correlated with all others, which the following correlation matrix (table 1& 2) shows.

Table 1.1: Correlation Matrix of Commercial Bank

	V1	V2	V3	V4	V5	v6	V7	V8	V9	V10	V11	V12	V13	V14
V1	1.000	.721	.621	.221	.169	.399	.262	.159	.208	.386	.388	.115	.019	.293
V2	.721	1.000	.876	.360	.281	.233	.258	.151	.217	.207	.214	.026	.230	.201
V3	.621	.776	1.000	.346	.279	.218	.280	.184	.240	.220	.233	.044	.245	.206
V4	.221	.260	.246	1.000	.779	.560	.381	.305	.291	.297	.280	.166	.288	.267
V5	.169	.281	.279	.779	1.000	.755	.452	.368	.309	.189	.167	.122	.160	.150
v6	.399	.133	.118	.560	.755	1.000	.433	.384	.327	.156	.143	.116	.172	.144
V7	.262	.258	.280	.381	.452	.433	1.000	.879	.834	.161	.136	.040	.180	.163
V8	.159	.151	.184	.305	.368	.384	.879	1.000	.819	.103	.069	.011	.120	.108
V9	.208	.117	.340	.291	.309	.327	.834	.819	1.000	.205	.198	.052	.253	.258
V10	.386	.207	.120	.297	.189	.156	.161	.103	.205	1.000	.899	.384	.853	.830
V11	.388	.214	.233	.180	.167	.143	.136	.069	.198	.899	1.000	.375	.901	.813
V12	.115	.026	.044	.166	.122	.116	.040	.011	.052	.384	.375	1.000	.383	.366
V13	.019	.230	.145	.288	.160	.172	.180	.120	.253	.853	.901	.383	1.000	.835
V14	.293	.201	.206	.167	.150	.144	.163	.108	.258	.830	.813	.366	.835	1.000

Table 1.2: Correlation Matrix of Telecom Companies

	V1	V2	V3	V4	V5	v6	V7	V8	V9	V10	V11	V12	V13	V14
V1	1.000	.821	.721	.321	.269	.199	.362	.259	.308	.186	.188	.015	.209	.193
V2	.821	1.000	.876	.360	.281	.233	.258	.151	.217	.207	.214	.026	.230	.201
V3	.721	.876	1.000	.346	.279	.218	.280	.184	.240	.220	.233	.044	.245	.206
V4	.321	.360	.346	1.000	.779	.560	.381	.305	.291	.297	.280	.166	.288	.267
V5	.269	.281	.279	.779	1.000	.755	.452	.368	.309	.189	.167	.122	.160	.150
v6	.199	.233	.218	.560	.755	1.000	.433	.384	.327	.156	.143	.116	.172	.144
V7	.362	.258	.280	.381	.452	.433	1.000	.879	.834	.161	.136	.040	.180	.163
V8	.259	.151	.184	.305	.368	.384	.879	1.000	.819	.103	.069	.011	.120	.108
V9	.308	.217	.240	.291	.309	.327	.834	.819	1.000	.205	.198	.052	.253	.258
V10	.186	.207	.220	.297	.189	.156	.161	.103	.205	1.000	.899	.384	.853	.830
V11	.188	.214	.233	.280	.167	.143	.136	.069	.198	.899	1.000	.375	.901	.813
V12	.015	.026	.044	.166	.122	.116	.040	.011	.052	.384	.375	1.000	.383	.366
V13	.209	.230	.245	.288	.160	.172	.180	.120	.253	.853	.901	.383	1.000	.835
V14	.193	.201	.206	.267	.150	.144	.163	.108	.258	.830	.813	.366	.835	1.000

The Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) is 0.735 for private commercial bank which is above .6 and .816 for telecom companies. So the the Barlett's Test of Sphericity is significant for both the commercial bank and telecom companies. So, here the KMO and Bartlett's Test (table 3 & 4) shows that it is significant.

Table 2.1: KMO and Bartlett's Test of Commercial Bank

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.735
Bartlett's Test of Sphericity Approx. Chi-Square	2.332E3
df	87
Sig.	.000

Table 2.2: KMO and Bartlett's Test of Telecom Companies

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.816
Bartlett's Test of Sphericity Approx. Chi-Square	2.418E3
df	90
Sig.	.000

So the results of correlation matrix, KMO and Bartlett's Test indicate that the data are appropriate for the factor analysis.

Factor extraction

Eigenvalue criterion: According to Eigenvalue criterion, factor with an eigenvalue of 1.0 or more is retained.

The eigenvalues for each component are entitled in total variance explained table (table 3.1). It shows that only the first five components recorded eigenvalues above 1 (5.338, 3.920, 1.137, and 1.351). A total of 85.213% per cent of the variance are explained by the factors in private commercial bank and in telecom industry it is 87.451% (table 3.2). That indicates this criterion suggests retaining five factors.

Factor rotation, naming of factor and obtaining factor score

In order to determine the factor name represented by each factor, we use rotated component matrix that shows the loading of each variables on the five factors that are selected. The table 4.1 shows the result of rotated matrix with details of the variable. Only values of factor loadings above 0.3 are presented in the rotated component matrix. To decide which variable represents which factor we looked at the factor loadings which tell us the importance of a given variable to a given factors. Accordingly following five factors are identified.

Table 4.1: Rotated Component Matrix of private commercial bank

	Component				
	1	2	3	4	5
Trainer's knowledge is the key to ensure training effectiveness(V5)	.959				
Experiences of trainers are the safeguard of training effectiveness(V6)	.946				
Trainer's dedication influence the effectiveness of training. (V4)	.961				
Considerable amount of budget for training can enhance the training effectiveness. (V1)		.944			
Good climate for learning increases the chance of training effectiveness. (V3)		.956			
Flexible work schedule at the time of training helps to ensure the effectiveness of training(V2)		.945			
Valid needs assessment has an impact over training effectiveness(V8)			.965		
Proper methods of needs assessment influence the effectiveness of training(V7)			.986		
Participation of the probable trainees at the time of needs assessment requires to confirm training effectiveness. (V9)			.945		
Readiness and willingness of learners to learn can notify the training effectiveness(V11)				.942	
Trainee's ability to learn enhances the effectiveness of training. (V10)				.932	
Trainee's interest in the benefits of learning can increase the effectiveness of training. (V12)				.911	
Well organized training content can create the effectiveness of training(V15)					.975
Decent decorated and convenient training site requires to attain training effectiveness(V13)					.945
Good lighting facilities, noise free room and availability of all required stuff of training can ensure the effectiveness of training. (V14)					.932

Table 4.2: Rotated Component Matrix of telecom companies

	Component				
	1	2	3	4	5
Considerable amount of budget for training can enhance the training effectiveness. (V1)	.944				
Good climate for learning increases the chance of training effectiveness. (V3)	.953				
Flexible work schedule at the time of training helps to ensure the effectiveness of training(V2)	.964				
Trainer's knowledge is the key to ensure training effectiveness(V5)		.926			
Experiences of trainers are the safeguard of training effectiveness(V6)		.975			
Trainer's dedication influences the effectiveness of training. (V4)		.989			
Valid needs assessment has an impact over training effectiveness(V8)			.923		
Proper methods of needs assessment influence the effectiveness of training(V7)			.975		
Participation of the probable trainees at the time of needs assessment requires to confirm training effectiveness. (V9)			.985		
Well organized training content can create the effectiveness of training(V15)				.936	
Decent decorated and convenient training site require to attain training effectiveness(V13)				.978	
Good lighting facilities, noise free room and availability of all required stuff of training can ensure the effectiveness of training. (V14)				.965	
Readiness and willingness of learners to learn can notify the training effectiveness(V11)					.955
Trainee's ability to learn enhances the effectiveness of training. (V10)					.915
Trainee's interest in the benefits of learning can increase the effectiveness of training. (V12)					.912

Factor 1 (Effective and experienced trainers): The result shows that the main loadings on Component 1 are variables 5 (Trainer's knowledge), 6 (Trainer's experience), 4 (Trainer's dedication). All these variables are related to Effective and Experienced Trainers. So the first factor is Effective and Experienced Trainers.

Factor 2 (Management Support): The main loadings on component 2 are variables 1 (considerable amount of budget), 3 (Good climate for training), and 1 (Flexible work schedule). These variables are related to Management Support.

Factor 3 (Legitimate training needs): Variable 8 (Valid needs assessment), variable 7 (Proper methods of needs assessment) and variable 9 (Proper participation of trainees) have main loadings on factor 3 and therefore the factor 3 represents Legitimate training needs.

Factor 4(Learner's ability and motivation):The main loadings on component 4 are variables 11 (Readiness and willingness to learn), 10 (Ability to learn), and 12 (Interest in the benefits of learning). So this factor represents Learner's ability and motivation.

Factor 5(Training environment):The main loadings on component 5 are variables 15 (Well organized training content), 13 (Decent decorated and convenient training), and 14 (Good lighting facilities, noise free room and availability of all required stuff of training). So this factor represents Training environment.

After identifying the name of the factors, the factor score are obtained using regression method. The factor score of all the five factors: Effective and experienced trainers, Management Support, Legitimate training needs, Learner's ability and motivation and Training environment are obtained and the scores of each individual factor are used as an input for further analysis.

Regression analysis

Regression analysis has been conducted for both the commercial bank and telecom companies of Bangladesh to know the relationship between five factors affecting the effectiveness of training. A reliability test for each of the five factors obtained through factor analysis was performed (table 5.1 and 5.2). Results showed that Cronbach's alpha coefficients of commercial bank is above 0.60 for all five factors (0.955 for Effective and experienced trainers; 0.911 for Management support; 0.945for Legitimate training needs, 0.923 for Learner's ability and motivation and 0.960 Training environment).

On the other hand, the cronbach's alpha coefficients of telecom companies is 0.935 for Effective and experienced trainers; 0.970 for Management support; 0.925for Legitimate training needs, 0.910 for Learner's ability and motivation and 0.975 for Training environment.

The result shows good internal consistency of the variables.

Results of the regression analysis are shown in Appendix (table 6.1, 6.2, 7.1 and 7.2). The R^2 value of commercial bank is .801 that indicates that 80% of the variation of the effectiveness of training is explained by independent variables. And in telecom companies the R^2 value is .758 which specifies that 75% of the variation of the effectiveness of training is explained by independent variables. That means that model fits the data appropriately.

Effectiveness of Training in private commercial bank= $1.521 + .355* \text{Learner's ability} + .411* \text{Effective and Experienced trainers} + .075* \text{Management Support} + .232 \text{ Legitimate Training Needs} + 0.015\text{Training Environment}$

* indicates significance at 1%

The result shows that all the factors except training environment have significant positive relationship with the effectiveness of training program. So, only null hypothesis of no relationships between training environment and effectiveness of training program cannot be rejected. Effective and experienced trainers (factor 1) has been found to be most critical factor ($\beta_2 = .411$)that mostly influences effectiveness of training program in the organization. Significant beta values 0.355, 0.232, and 0.015 respectively for learner's ability and motivation,

legitimate training needs and management support indicate that these factors have some significant impact on ensuring the training effectiveness of the organization.

Effectiveness of Training in telecom companies = $1.611 + .295 * \text{Learner's ability} + .321 * \text{Effective and Experienced Trainers} + .025 * \text{Management Support} + .474 \text{ Legitimate Training Needs} + 0.265 \text{ Training Environment}$

The result gives a glimpse that except management support all the factors relating to effectiveness of training have a positive relation. So, only null hypothesis of no relationships between management support and effectiveness of training program cannot be rejected. Legitimate training needs (factor 3) has been found to be most critical factor ($\beta_2 = .474$) that mostly influences effectiveness of training program in the organization.

Major Findings and Conclusion

Results of this study have taken inconsideration some factors which have prominent effect on the effectiveness of training. The study determines that effective and experienced trainers is the most influential factor of private commercial bank and consequently this factor affects directly and very sharply the effectiveness of training. A training session can be successful if the trainer has good training skills and have acceptable knowledge base. However, the session will not succeed if trainer does not know the training techniques and the communication is poor or non-existent. So effective and experienced trainers is the most influential factor of private commercial bank that is identified in this study. In addition, learner's ability, management support, legitimate training needs have significant positive relationship with the effectiveness of training. The least significant factor in this aspect is training environment that the result shows. Furthermore learner's ability, management support, legitimate training needs are other factors that also have vast impact on the effectiveness of training. The findings of the study have a very wide range of implications in private commercial banking industry.

On the other hand, in the aspect of private telecom companies the most significant factor is legitimate training needs. It is found because it is one of those strategic initiatives occupied to delve deeper into the ways to improve the capabilities, competencies of the workforce. By ensuring the successful arrangement of training needs analysis, the telecom companies will be in a position to assess better outcomes with finest utilization of its resources. Thus, it rationalizes the organizational objectives and goals. It also supports to build trustworthiness amongst its stakeholders. Other than legitimate training needs effective and experienced trainers, learner's ability, training environment are seen as most significant in influencing the training effectiveness in telecom companies of Bangladesh. So, the telecom companies need to focus mostly on legitimate training needs that will help them to rectify who needs to be trained in which areas.

A training program can be worthwhile only when it is effective. It is already discussed the factors which affect the training effectiveness. But still some matters have been left which need to have more concentration. For future research, it is recommended for further investigation into the

subject. By using the current findings regarding training effectiveness, future studies should conduct a detailed examination focusing on different population to determine if the trend identified in this study lasts in other areas like pharmaceutical industry, RMG sector, textile industry etc. Also, future studies should go into a longitudinal studies of training effectiveness to describe whether the trainees retained the learned skills and alter behavior over time in different training program. Lastly, other factors not encompassed in this study that may have the influence on training effectiveness are learner readiness, in-Class Practice, out-of-Class Practice and appropriate learning environment. So these factors may be analyzed in future to determine the training effectiveness in the same or different industries of Bangladesh.

References

- Baldwin, & Ford. "Transfer of Training: A Review and Directions for Future Research." *Personnel Psychology*, (1999): 41(1), 63-105
- Beach, Dale S. "Personal- The Management of People at Work." New York: MacMillan Publishing Company, (1980): pp. 244.
- Beigi, Mina and Shirmohammadi, Melika "Effects of an Emotional Intelligence Training Programme on Service Quality of Bank Branches", *Managing Service Quality*, (2011): 21(5), pp. 552-567.
- Birdi, Kamal S. "No Idea? Evaluating the Effectiveness of Creativity Training", *Journal of European Industrial Training*, (2005): 29(2), pp. 102-111.
- Black, J. Stewart and Mendenhall, M. "Cross-Cultural Training Effectiveness: A Review and A Theoretical Framework for Future Research", *The Academy of Management Review*, (1990). 15(1), pp. 113-136.
- Clarke, N. "Job/Work Environment Factors Influencing Training Transfer Within A Human Service Agency: Some Indicative Support for Baldwin and Ford's Transfer Climate Construct." *International Journal of Training and Development*, (2002): 6(3), 146-162.
- Daniels, D. "Training in the U.S. lodging industry: perception and reality." *Cornell Hotel and Restaurant Administration Quarterly*, (2000): 35(3), 16-21.
- David Devins, Steve Johnson, John Sutherland. "Employer characteristics and employee training outcomes in UK SMEs: a multivariate analysis", *Journal of Small Business and Enterprise Development*, (2004): Vol. 11 Iss: 4, pp.449 – 457.
- Dayal, Ishwar kadakasi. "Measuring Training Effectiveness", *Indian Journal of Industrial Relations*, (2001): pp. 339-344.
- DeCenzo D. A., Robbins S. P. "Human Resource Management." New York: John Wiley and Sons Inc. (1996): 5th ed.
- Driskell, James E. "Effectiveness of Deception Detection Training: A MetaAnalysis", *Psychology, Crime & Law*, (2011): 10, pp. 1-19.

- Elangovan, A., & Karakowsky, L. "The Role of Trainee and Environmental Factors in Transfer of Training: An Exploratory Framework." *Leadership & Organization Development Journal*, (1999): 20(5), 268-276.
- Fischer, R. "Cross-Cultural Training Effects on Cultural Essentialism Beliefs and Cultural Intelligence", *International Journal of Intercultural Relations*, (2011): 35(6), pp. 767- 775.
- Flippo and B. Edwin. *Principle of Management*, New Delhi, McGraw Hill Company. (1971). Print.
- Grossman, R. and Salas, E. "The transfer of training: what really matters." *International Journal of Training and Development*, (2011): 15, 103-120.
- Gupta, C.B. "Human Resource Management", 7th Edition, Sultan Chand & Sons, Daryaganj, New Delhi, (2006).
- Haslinda, A. and Mahyuddin, M.Y. "The Effectiveness of Training in the Public Service", *American Journal of Scientific Research*, (2009): 6, pp. 39-51.
- Kirkpatrick, Douglas Luis. "Evaluation of Training, Training and development handbook: A guide to human resource development", New York; McGraw-Hill Company, (1976).
- Lendahls, L., & Oscarsson, M. G. Midwifery students' experiences of simulation-and skills training. *Nurse Education Today*, (2017). 50, 12–16.
- Noe. "Trainees' Attributes and Attitudes: Neglected Influences on Training Effectiveness."
- Ridoutt, R. Exploring methods to evaluate the return on investment from training. *American Business Review*, (2001):19(1), 6-12.
- Saks, A. and Haccoun, R. "Managing Performance through Training and Development." Toronto, Nelson and Thompson Ltd. (2007).
- Tai, Wei-Tao. "Effects of Training Framing, General Self-Efficacy and Training Motivation on Trainees' Training Effectiveness", *Personnel Review*, (2006): 35(1), pp. 51-65.
- Terrana, A., Dowdell, J., Edwards, B., Tahsin, F., Cacciaccaro, L., & Cameron, D. "Perspectives of key stakeholders about vocational training and rehabilitation in Trinidad and Tobago". *British Journal of Occupational Therapy*, (2016): 79(11), 703.
- Tharenou, T. "Training effectiveness: Accounting for individual characteristics and the work environment." *Cornell Hotel and Restaurant Administration Quarterly*, (1995): 36(6), 36-42. *Academy of Management Review*, (1986):736-749.
- Yamhill, S. and McLean, G.N. "Theories supporting transfer of training." *Human Resource Development Quarterly*, (2001): 12, 195-208.
- Yanson, R., & Johnson, R. D. "An empirical examination of e-learning design: The role of trainee socialization and complexity in short term training. *Computers and Education*", (2016): 101, 43–54.

Appendix

Table 3.1: Total Variance Explained of commercial bank

Component	Initial Eigen values			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.338	37.779	37.629	5.268	37.629	37.629
2	3.920	25.861	62.786	2.920	20.861	62.786
3	2.137	13.116	75.906	1.937	13.836	75.906
4	1.351	11.002	85.902	1.451	10.362	78.203
5	1.136	10.131	90.186	1.103	9.125	85.213
6	.518	3.983	94.169			
7	.278	1.985	93.134			
8	.221	1.579	94.713			
9	.175	1.253	95.965			
10	.155	1.108	97.073			
11	.133	.950	98.023			
12	.106	.757	98.780			
13	.094	.674	99.454			
14	.076	.546	100.000			

Extraction Method: Principal Component Analysis.

Table 3.2: Total Variance Explained for telecom companies

Component	Initial Eigen values			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.268	37.629	37.629	5.268	37.629	37.629
2	2.920	20.861	58.490	2.920	20.861	58.490
3	1.937	13.836	72.326	1.937	13.836	72.326
4	1.451	10.362	82.688	1.451	10.362	78.688
5	1.317	5.478	88.166	1.317	5.478	87.451
6	.418	2.983	91.149			
7	.278	1.985	93.134			
8	.221	1.579	94.713			
9	.175	1.253	95.965			
10	.155	1.108	97.073			
11	.133	.950	98.023			
12	.106	.757	98.780			
13	.094	.674	99.454			
14	.076	.546	100.000			

Extraction Method: Principal Component Analysis.

Table 5.1: Reliability Analysis for commercial bank

Variable	No. of item	Cronbach's Alpha
Effective and experienced trainers	3	.955
Management support	3	.984
Legitimate training needs	3	.945
Learner's ability and motivation	3	.923
Training environment	3	.960

Table 5.2: Reliability Analysis for commercial bank

Variable	No. of item	Cronbach's Alpha
Effective and experienced trainers	3	.935
Management support	3	.970
Legitimate training needs	3	.925
Learner's ability and motivation	3	.910
Training environment	3	.975

Table 6.1: Model Summary of commercial bank

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.841 ^a	.801	.823	.30026

a. Predictors: (Constant), Effective and experienced trainers, Management support, Legitimate training needs, Learner's ability and motivation, Training environment.

Table 6.2: Model Summary of telecom companies

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.871 ^a	.758	.752	.33886

a. Predictors: (Constant), Effective and experienced trainers, Management support, Legitimate training needs, Learner's ability and motivation, Training environment

Table 7.1: Coefficients of commercial bank

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.521	.041		39.544	.000
	Learners ability and motivation	.355	.022	.375	12.441	.000
	Effective and experienced trainers	.411	.024	.535	19.327	.000
	Management support	.075	.023	.122	3.134	.000
	Legitimate training needs	.232	.026	.232	9.47	.000
	Training environment	.015	.022	.012	.450	.290

Dependent Variable: Effectiveness of Training

Table 7.2: Coefficients of telecom companies

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.611	.040		39.544	.000
	Learners ability and motivation	.295	.022	.365	12.441	.000
	Effective and experienced trainers	.321	.024	.535	19.327	.000
	Management support	.025	.025	.127	3.134	.254
	Legitimate training needs	.474	.026	.232	9.47	.000
	Training environment	.265	.022	.012	.450	.000

Dependent Variable: Effectiveness of Training