Training Needs Assessment, Trainees' Work Passion and Training Effectiveness in Government Training Institutes of Khyber Pakhtunkhwa

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Keywords:

Training need assessment (TNA), Employees' Motivation, Employees' Learn, Employees' Commitment, Training framing, and Training effectiveness.

ABSTRACT

The purpose of this paper is to investigate the impact of Training need assessment (TNA) on training effectiveness and explore the moderation effect of training framing on the relationship of TNA, employees learning, employees' motivation, and employees' commitment. Data has been collected from 635 respondents of KPK government employees working in BPS-17 and above who have completed training in the last two years. The Structural equation modeling technique has been used for data analysis. Findings revealed that TNA, employees' learning, employees' motivation, and employees' commitment have a positive association with training effectiveness, while training framing moderate only the relationship between employee commitment and training effectiveness. This study is the first study in the target departments with large sample size. The study is expected to help researchers to understand the relationship in more depth and for further exploring these variables in other settings and with different combinations. The results are also expected to help policymakers, administrators, and practitioners regarding important factors of the training system and get the maximum output of invested resources. Future studies may look into these relationships from qualitative perspectives to delve deep into the strength of the subject relationship.

INTRODUCTION

The plethora of research (Alvelos, Ferreira, & Bates, 2015; Siew, Murali, & Florence, 2013; Ghosh, Joshi, Satyawadi, Mukherjee, & Ranjan, 2011) has been serving to reinforce the importance of training effectiveness. This is because in the current dynamic and competitive environment updated knowledge, skills, attitude, and moderated behavior are vital for organization survival (Latif, 2012). Human resource is nonreplicable and well-trained workforce plays an important role in sustainable competitive advantage (Tai, 2006). Market-based knowledge, skills, attitude, and moderated behavior of the workforce is essential to produce quality products and services at a reasonable price with increased market share. Trained human resource has already gained central importance in the 21st century, as it is the backbone of every organization. Despite its vital role, training and development are widely criticized due to its doubtful effectiveness (Davids,

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Gonzalez, Garrido, & Soto, 2014). Due to vibrant environmental forces efficiency and effectiveness are equally important for organizational investment. In the current era of information technology, human KSAs play a very important role in the sustainable growth of organizations.

Investment in training may give better a return than investment in any other area if the right targets are set and achieved (Yaw, 2008). Training helps organizations in creating a window of opportunity in normal as well as in critical situations. It not only enhances employee performance but helps organizations to utilize their human resource optimally (Ghosh, Joshi, Satyawadi, Mukherjee, & Ranjan, 2011). Training is not static but a process and has many parts. Training needs assessment (TNA) is one among them and has vital importance in the overall training process. It has been noted that it is not given due importance by the training institutes. In Pakistan majority of the public sector training institutes suffer this deficiency which adversely affects training effectiveness (Belwal, Belwal, & Jabri, 2014). It is the first step in a properly planned training program which identifies gaps in existing knowledge, skills, attitude, and behavior followed by content development, delivery, and training evaluation. Researchers (e.g., Denby, 2010) complain that many public sector training institutes do not have the required human skills, financial resources, and procedures thereby wasting valuable human and financial resources.

TNA is important as, on the one side it identifies gaps in current KSA's and behavior and on the other side it suggests changes in existing process and procedures to address the issue of poor performance (Iqbal & Khan, 2011; Khan & Masrek, 2017; Shah & Gopal, 2012). Besides, it brings all the important information on the management table to help them in identifying and prioritizing needs (Dahiya & Jha, 2011; Denby, 2010). Practitioners and academicians believe that TNA helps in effective and efficient utilization of financial resources, and human resources.

Even though effective training and development helps in sustainable competitive advantage, investment in training has been found risky (Denby, 2010). This risk may be minimized with the utilization of a comprehensive training system. It is worthwhile to mention that TNA is an important part of this system. It has a duet purpose—training and non-training solutions. However, it has been found that the traditional approach is adopted which focuses only on training solutions while ignoring the others (Iqbal & Khan, 2011).

Keeping the critical nature of training and the size of public sector organizations in mind, government of Khyber Pakhtunkhwa has established public sector training institutes and has been allocating a

handsome amount of money in the annual budget. In the annual budget 2017-18, the Khyber Pakhtunkhwa government invested Rs. 100 million on the three institutes i.e. (Higher Education, Health, Administration, and Finance). An officer of one of the targeted training institute revealed that average per trainee cost ranges from Rs. 25,000 to Rs. 30,000 per training. However, it has been revealed that there hardly any concept of any proper TNA to provide a solid base for the training program. If this is taken as truth, then how without identifying performance gaps someone can comment on the success or failure of a particular training! This is why training investment is considered very risky (Kapoor, D. S. Chaubey, & Negi, 2015) and top management is required to have compelling pieces of evidence for justifiable investment in training (Denby, 2010). Government sector organizations have been found in ease with using the traditional way of conducting training instead of carrying any TNA and never bother to evaluate the training process (Kapoor et al., 2015). In the traditional approach, trainer design contents without TNA, and ask the department for nominees. This obsolete approach is coupled with the random nomination by the department. In the current case, one of the training institutes was found developing training contents with the help of a panel of experts but, ironically this has not been updated in the last 10 years. This neglecting attitude toward TNA and training evaluation are causing numerous financial, performance and behavioral problems in the organization (Iqbal & Khan, 2011).

A review of the extant literature supports that the previous studies fail to give due importance to TNA and its role in government training institutes, especially in Khyber Pakhtunkhwa. The result is the continuation of a system which not only wastes current resources but has also numerous direct and indirect negative effects on the performance of government organizations, its employees, administrators, and trainers. This condition necessitates research to find empirical evidence in support of the claim and this endeavor is going to address this need.

LITERATURE REVIEW

Training by its virtue needs due attention in the dynamic and complex governance strategic moves. It is a systematically planned process that supports the workforce in acquiring marketable knowledge, skill and moderated behavior (Chauhan, Ghosh, Rai, & Kapoor, 2017). This is why large organizations invest a huge amount in training activities (Lee, 2019; Sahoo & Mishra, 2019). Continuous training helps employees increase performance through updated knowledge, skills, attitudes, and moderated behavior (Azmawani, Siew, Murali, & Florence, 2013; Lee, 2019; Tsai & Tai, 2003). A well-designed training system can uplift employees' and organizations' performance, through developed knowledge, skills, and

modified behavior (Carlisle, Bhanugopan, & Fish, 2011). Training and development even help organizations in the optimum utilization of the existing workforce (Alvelos, Ferreira, & Bates, 2015; Azmawani et al., 2013; Rahman & Nas, 2013; Sahinidis & Bouris, 2008). It facilitates organizations in achieving and maintaining sustainable competitive advantage (Carlisle et al., 2011).

Conceptual Framework

Training is conducting with the basic aim of bringing change in the behavior of employees and organizations. When a particular training achieves this basic goal, the training is generally considered effective. This cause and possible effect process is a composite process of so many relationships among diverse variables. There are several theories like incompetency training theory (Broadwell, 1969), human capital theory (Schultz, 1961), training engagement theory of motivation, reinforcement theory of motivation, resource-based view theory, and dynamic capability theory that provide plausible explanation and support to the variables that interact with each other. The authors of the current study propose the following conceptual framework (Figure 1) with hypotheses and put it to empirical testing with the help of data collected from the pubic training institute of Khyber Pakhtunkhwa.
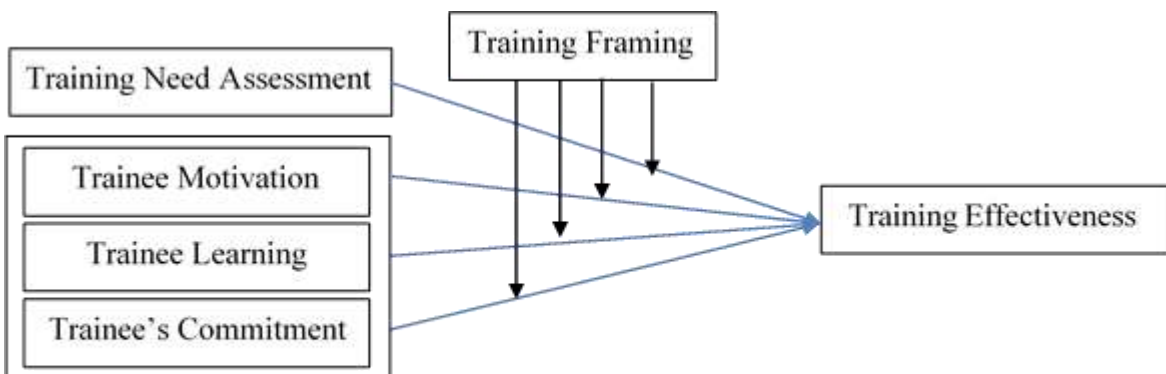

Figure 1   Conceptual Framework of the Study

Training Needs Assessment (TNA)

TNA refers to the process of investigation and identification deficiencies at organizational, personal, and task levels and recommends non-training solutions for the achievement of given results (Carlisle et al., 2011; Shah & Gopal, 2012). This process helps in identifying gaps in employee existing knowledge, skill, attitude, and behavior and recommend training and non-training solution to improve employee and organization performance (Chiu, Thompson, Mak, & Lo, 1999). It is TNA, which is a proactive approach and provides required information for effective training design and evaluation (Bresnahan & Johnson, 2013). It also answers fundamental questions like who needs training, when, where, and what type of contents will bridge the identified gap, etc. This activity gives proper direction and rationalizes training activities, and escape the repetition of skill and high cost and increase contents feasibility (Khan, Masrek, & Nadzar, 2015). It is the first step which provides bases for other training activities (Bowman & Wilson, 2008). If TNA is missing in a training program, one cannot expect the desired results and maybe a wastage of valuable resources (Khan & Masrek, 2017; Tao, Yeh, & Sun, 2006). A skillfully conducted TNA is targeted to highlight current and future potential problems that can adversely affect employees and organization performance (Iqbal, Malik, & Khan, 2012; Sahoo & Mishra, 2019; Vishwakarma & Tyagi, 2017).

It has been empirically established that a professionally conducted TNA has a close association with training effectiveness (Khan & Masrek, 2017). Training effectiveness refers to training transfer which enhances employee and organization productivity (Kodwani, 2017 ;Kucherov & Manokhina, 2017; Nazli & Khairudin, 2018). However, it is posited that the magnitude of this relationship is affected by training framing. Training framing is the required awareness about training program before attending the program. This, naturally, helps employees to take an interest in training. This is supported by the incompetency training theory. Similarly, training engagement theory also emphasizes to view training as a whole system (Sitzmann & Weinhardt, 2015). In the light of such an explanation, the following hypotheses are put to test for validations:

H1: Training needs assessment has a positive relationship with training effectiveness in the subject population.

H1a: Training framing moderates the relationship between training needs assessment and training effectiveness.

Trainee Work Passion

Trainee's motivation

Motivation refers to the psychological processes that sensitize, energize, and get engaged or disengaged from the specific set of behavior through automatic or reflective mechanisms (Al-Sada, Al-Esmael, & Faisal, 2017; Gloster et al., 2018). A trainee's motivation is an individual desire to learn the training contents most effective way and to transfer the newly acquired knowledge, skill, attitude, and behavior to work settings (Aziz & Ahmad, 2011; Tai, 2006). Anyone can easily conclude that trainee's motivation level is one of the most important determinants for training effectiveness (Tsai & Tai, 2003). A highly motivated employee will get maximum outcomes through actively participate in the training program (O. K. Bhatti, Aslam, Hassan, & Sulaiman, 2016). Attitude and motivation of trainees play a critical role in achieving training effectiveness (Tsai & Tai, 2003). In short, motivation plays a positive role in training transfer (Davids et al., 2014).

Trainees' motivation positively affects his/her intentions to learn, and transfer for career advancement in most effectively (O. K. Bhatti et al., 2016; Park, Kang, & Kim, 2018). Trainees with high self-efficacy will have more energies to produce the best results out of the training program (Tai, 2006). Training engagement theory of motivation and reinforcement theory of motivation help to explain the intrinsic components associated with trainees' motivation and training effectiveness. Again, the magnitude of this relationship is affected by training framing. In other words, trainees' awareness of the contents of the training program has a definite role in defining the intensity of this relationship. Based on the above literature, the following hypotheses will be put to empirical testing:

H2: Employee's motivation has a positive relationship with training effectiveness.

H2a: Training framing moderates the relationship between an employee's motivation and training effectiveness.

Trainee's learning

Learning by definition is the cognitive process of building knowledge, creating meaning, and developing solutions from current experience and knowledge (Boukamcha, 2015; Marcus & Shoham, 2014). It also refers to the outputs of employees' interaction and participation in a group-based environment. It is a complex multi-fold phenomenon which includes, but not limited to learning culture, structure, emotions, motivation, traits, attitudes, and behavior (Griffin, 2010) and is considered the backbone for social

uplifting, sustainable development and quality improvement of the product and services. For sustainable development organizations are not only developing their existing workforce but trying to retain it (Kyndt, Govaerts, Keunen, & Dochy, 2013).

In the current complex professional environment, career survival largely depends on market-driven learning, and behavior modification, this learning can be from formal or informal or both depends on opportunities and resources (Kyndt, Vermeire, & Cabus, 2016). Organizational learning culture plays a pivotal role in employee encouragement and initiative (Palos & Stancovici, 2016). Organization learning culture refers to combinations of system, and subsystem of collective norms, values, and belief which guide every employee for collective growth and development (Breda-Verduijn & Heijboer, 2016; Hietanen, 2015; Polo, Cervai, & Kantola, 2018).

Learning and learning transfer are closely interlinked concepts. In training transfer trainees apply the acquired knowledge, skills, and behavior modification to work setting (Davids et al., 2014; Muduli & Raval, 2018; Nazli & Khairudin, 2018; Park et al., 2018; Zwick, 2015). Training transfer largely depends on the close association of training contents, with the real-life working environment. Effectiveness of a training program depends on training contents, effective learning skills, training transfer design and how one may apply the newly acquired learning to the work settings (Alvelos, Ferreira, & Bates, 2015; Robotham, 2003). Again, the magnitude of this relationship is affected by trainees' awareness of the contents of the training program. This awareness plays an important role in moderating employees' perceptions of training programs in a positive way (Bashir & Long, 2015; Park et al., 2018; Sitzmann & Weinhardt, 2015). Based on the above literature, the following hypotheses will be put to empirical testing:

H3:   Employee's learning has a positive relationship with training effectiveness.

H3a: The relationship between employees' learning and training effectiveness is moderated by training framing.

Trainee's commitment

Commitment refers to the intellectual, emotional attachment, and loyalty of an employee with her/his organization and links his objective and success with that of the organization (Al-Sada et al., 2017; Blau, Chapman, & Neri, 2016; Kang, Stewart, & Kim, 2011; Rao, 2017). It positively affects the relative strength of the association of employees with the organization (Hoppe, 2017; Horwitz & Horwitz, 2017;

Kaur, 2017; Sahinidis & Bouris, 2008). Simply, it is the psychological association of an individual and organization that positively or negatively affects the working behavior of the workforce (Denby, 2010; Latif, 2012). Commitment is expected to produce better results in achieving training and organizational objectives (Sahinidis & Bouris, 2008). Higher committed employees will have a positive attitude, work for longer hours, learn quickly, and demonstrate better results in training and working environment (Hughey & Mussnug, 1997). Employee commitment is directly associated with employee turnover intentions (Fazio, Gong, Sims, & Yurova, 2017). It is important to mention that organizational commitment is closely associated with employee perception in the organization (Bashir & Long, 2015; Luo, Marnburg, & Law, 2017).

Organization need to demonstrate a sense of importance toward its workforce and training and development is a good tool to demonstrate this sense of importance. In this milieu, training framing multiplies the impact of training activity as it increases training awareness, provide factual information, clarify training objectives, associate training with career and organization development (Sahoo & Mishra, 2019). Resource-based view theory helps in understanding the importance of employee commitment, and its role in achieving training and organizational objectives (Theriou, Aggelidis, & Theriou, 2009). An employee will take more interest if the supervisor guides them about the proposed training program and its role in an employee's career development and growth and will eventually affect the magnitude of the training effectiveness. Based on the foregoing discussion, the study puts to empirically test the following hypotheses:

H4: Employee's commitment is positively associated with training effectiveness.

H4a: Training framing moderates the relationship between an employee commitment and training effectiveness.

Training framing/awareness

Training framing refers to the awareness session for the potential trainees of the organization (Sahoo & Mishra, 2019). The awareness session includes information about training objectives, training contents, calendar, potential outputs and outcomes, benefits for the trainees' career development, and for the organization. Training framing is required to be considered as an integral part of the overall training process. Negligence will tumble-down the whole process, as trainees will not be in a position to provide expected results (Latif, 2012). Here supervisor role in vital as it enables trainees to accept and actively

participate in the training (Muduli & Raval, 2018; Park et al., 2018). On the contrary, if the supervisor fails to play an active role in providing the required information, it will create a negative feeling about the training program (Kodwani, 2017). Trainees participation is directly linked with the amount of information, and support received from the management and colleagues (Tao et al., 2006). Employee's perception, motivation, self-efficacy, learning, training transfer and training effectiveness are closely associated with supervisor and colleague support (Nikandrou, Brinia, & Bereri, 2009; Tai, 2006). Supervisor support and awareness session play an undeniable role in the effectiveness of the training program (Muduli & Raval, 2018; Nikandrou et al., 2009). Training framing plays a multi-dimensional role in training. First, it positively modifies trainees' perception about training; second, it prepares employee for the target objectives; and third, it increases their self-efficacy and motivation level, which increase training effectiveness. Human capital theory helps in understanding how investments may be multiplied through training, while training engagement theory helps in considering training as a whole system. Additionally, it helps to explain the association among different variables (employees learning, training framing, and training effectiveness) of the underpinning research (Mincer, 1958). In light of this discussion, it is posited that training framing plays a moderating role.

Training effectiveness

Training effectiveness refers to the output and outcome as a result of systematically planned training and development activities enhancing employees' KSA's and behavior modification (Aziz & Ahmad, 2011; Tai, 2006). Similarly, improvements in employee and organization performance are, generally, attributed to training effectiveness (Azmawani, Siew, Murali, & Florence, 2013). Training transfer is an important factor which refers to the practical application of the modified behavior for individual and organizational performance improvement (Kodwani, 2017). It is the post-training phase where results can be seen in different aspects of employees and organizations and helps in achieving personal and organizational goals and objectives (M. A. Bhatti, Battour, Sundram, & Othman, 2013). Practitioners and researchers have identified factors affecting training transfer, TNA, training contents, employee motivation, commitment, learning, training framing, supervisors and coworker support, working environment, and organizational culture (Alvelos et al., 2015; M. A. Bhatti et al., 2013). Some training professionals are of the view that trainees should be held accountable for training transfer and effectiveness (Cheramie & Simmering, 2008). Empirical study support that only 10 to 20% of training material can be positively transferred to the working environment (Ford, 2009; Marcus & Shoham,

2014). This meager amount of training transfer could be considered the main reason for inviting critique of the need for training and investment in training. That is why how vital this area is for extensive research (Park et al., 2018; Sahoo & Mishra, 2019).

METHODOLOGY

The study uses cross-sectional data with stratified random sampling. The sample has been drawn from government employees working in BPS 17 or above in the departments of education, health, administration, and finance, who have completed their training program in the previous two years. Data was collected through survey research technique, scales for different variables were adopted from the past works of (Algabbani, 1989) for TNA, (Hansen, 2001) for employee motivation, (Ayres, 2005) for employee learning, (Wills, 2013) for employee commitment, (Alexander, Thanacoody, & Hui, 2011) for training framing, and (Freeman, 2009) for training effectiveness). Five-point Likert scale affixed in a range of strongly disagree=1 and strongly agree=5, as five points scale is comparatively good (Sekaran, 2003). Personally administered survey research method is economic, more data can be collected in less time, comparatively accurate data can be collected (Mark N. K Saunders, Lewis, & Thornhill, 2012). The sample size was in light of Krejcie and Morgan (1970) table, Roscoe (1975) suggest that sample size in the range of 300 to 500 are appropriate, while researcher receives 658 filled questionnaires, after a thorough examination of the filled questionnaires 635 were found ready for final analysis. Respondents representing different strata in the accepted questionnaires were 323, 104, 102, and 106, of education, health, administration, and finance department respectively.

Instrument reliability shows its internal consistency which is very important (Mark N. K Saunders et al., 2012; Sekaran, 2003). Cronbach's alpha value between 0.60 and 1 is acceptable, which confirms that the instrument is error-free. Instrument reliability for the current study was found in the range of 0.900 to 0.701 (table 1), while for validity the instrument was pilot tested and different analyses were performed. Information about respondents' age, experience and education, can be found in tables 2, 3 and 4 respectively. Statistical package for social sciences (SPSS) and AMOS were employed for analyses. Tables (1-4) provide descriptive statistics of the data.

Table 1 *Descriptive Statistics and Reliability Values*

Variable	Mean	SD	Cronbach's Alpha
Training Need Assessment	19.04	2.67	0.711
Employee Motivation	18.63	2.97	0.701
Employee Learning	18.85	3.28	0.848
Employee Commitment	21.93	3.33	0.717
Training Framing	21.01	5.11	0.900
Training Effectiveness	21.40	2.32	0.721

Table 2 *Statistics about the Age of the Respondent (N = 635)*

Age Range		Frequency	Percent	Cumulative Percent
Valid	22-34	281	44.3	44.3
	35-40	198	31.2	75.4
	41-46	85	13.4	88.8
	47-52	71	11.2	100.0
	Total	635	100.0	

Table 3

Statistics about Experience of the Respondent (N = 635)

	Experience Range	Frequency	Percent	Cumulative Percent
Valid	Below 5 years	193	30.4	30.4
	6 years to 10 years	186	29.3	59.7
	Above 10 years	256	40.3	100.0
	Total	635	100.0	

Table 4 *Statistics about the Education Level of the Respondent (N = 635)*

	Qualification	Frequency	Percent	Cumulative Percent
Valid	Bachelor	50	7.9	7.9
	Master	469	73.9	81.7
	Others	116	18.3	100.0
	Total	635	100.0	

In the first step structure equation modeling technique was employed to estimate and validate how different indicators and error terms fit in the model. Several fit indices have been employed to see if the scale is acceptable or otherwise. In the second step, this technique helped the researchers to evaluate the fitness of the overall model and the association among constructs. After confirmation of individual and overall model fitness (table 5), the structural model is tested to evaluate how each independent variable affects the dependent variable (Loehlin, 1998).

Table 5 *Fit Statistics and Measurement Scale Properties (N=635)*

Constructs and Indicators	Completely Standardized Loadings* (t-Values)	Indicator Reliability	Error Variance	Construct Reliability	Variance Extracted
Training Needs Assessment				**0.711**	**0.7**
TNA2	0.45(15.6)	0.68	0.487		
TNA3	0.39 (16)	0.67	0.586		
TNA5	0.46(15)	0.68	0.487		
TNA6	0.57(13.2)	0.67	0.586		
TNA7	0.56 (13.8)	0.66	0.455		
TNA8	0.59(12.5)	0.67	0.376		
Employees Motivation				**0.701**	**0.7**
EM2	0.77 (10.2)	0.6	0.345		
EM3	0.80 (5.6)	0.59	0.367		
EM4	0.59 (15.3)	0.61	0.466		
EM5	0.36 (16.3)	0.67	0.586		
EM8	0.3 (17.4)	0.68	0.487		
EM9	0.15 (17.7)	0.7	0.489		
Employees Learning				**0.848**	**0.7**
EL1	0.64 (15.7)	0.83	0.147		
EL3	0.77 (13.4)	0.81	0.177		
EL4	0.73 (13.9)	0.82	0.198		
EL5	0.76 (13.7)	0.81	0.593		
EL6	0.65 (14.8)	0.83	0.635		
EL8	0.61 (15.8)	0.83	0.147		
Employees Commitment				**0.717**	**0.6**
EC1	0.51 (15.6)	0.68	0.384		
EC3	0.56 (14.6)	0.68	0.384		
EC4	0.51 (15.5)	0.69	0.535		
EC5	0.23 (17.4)	0.73	0.596		
EC6	0.67 (12.6)	0.66	0.71		
EC7	0.54 (14.8)	0.68	0.487		
EC10	0.54 (15.2)	0.67	0.586		
Training Framing				**0.9**	**0.7**
TF2	0.8 (13.6)	0.88	0.332		
TF3	0.78 (15.4)	0.88	0.148		
TF6	0.8 (13.9)	0.89	0.314		
TF5	0.82 (14.1)	0.88	0.355		
TF8	0.67 (16.1)	0.89	0.264		
TF10	0.73 (15.6)	0.89	0.161		
TF11	0.74 (14.2)	0.89	0.497		
Training Effectiveness				**0.721**	**0.8**
TE2	0.68 (11.9)	0.674	0.304		
TE3	0.65 (12.6)	0.677	0.358		
TE4	0.57 (14.4)	0.674	0.291		
TE6	0.38 (16.6)	0.684	0.468		
TE7	0.4 (16.4)	0.692	0.404		
TE11	0.46 (15.8)	0.693	0.232		

Fit statistics

Absolute Indices   RMR = 0.031; GFI = 0.909; GFI = 0.893; RMSEA = 0.037

Incremental Fit Indices   NFI = 0.850; CFI = 0.924

Parsimonious Fit Indices   PNFI = 0.763; PCFI = 0.829; ECVI = 2.191

After confirmation that the data is normally distributed and having no heteroscedasticity neither multicollinearity problems and is ready for regression analysis (table 6).

Table   6 *Results of Fit Statistics of Structural Model*

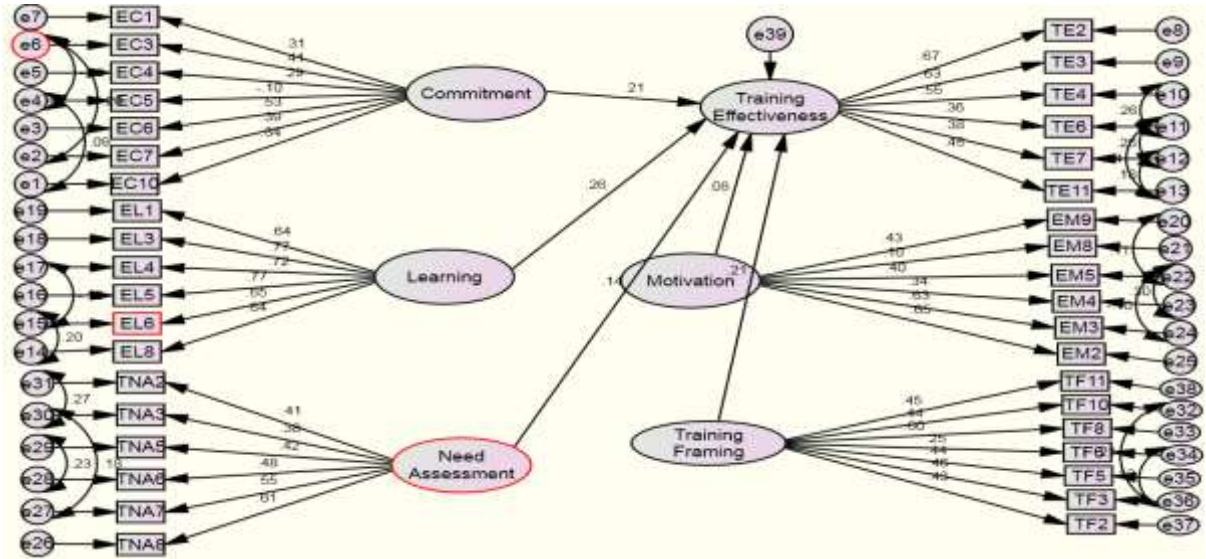| #	Goodness of Fit Measures	Level of Acceptable Fit	Calculation of measures	Acceptability
		I. Absolute Fit Indices		
1	Chi-square	Provides Statistical test of significance	Chi-square =1226.36 (631 df), p = 0.0	Sensitive to a large sample size (Hooper, Coughlan, & Mullen, 2008).
2	(GFI)	≥0.9	0.902	Good Fit
3	RMSEA	0.08≤	0.039	Good Fit
4	(RMR)	Poor fit 0 to 1 Perfect fit	0.029	Good Fit
		II. Incremental Fit Indices		
1	NFI	Poor fit 0 to 1 Perfect fit	0.767	Good Fit
2	TLI		.855	Acceptable
3	CFI	≥0.9	.870	Good Fit
		III. Parsimony Fit Indices		
1	PNFI	Relatively high values represent a relatively better fit	0.689	Good Fit
2	PCFI	Relatively high values represent relatively better fit	0.781	Good Fit
3	AGFI	≥0.9	0.885	Good Fit

Figure 2   CFA for Structural Model

Fit statistics

Absolute Indices   RMR = 0.032; GFI = 0.927; AGFI = 0.911; RMSEA = 0.037

Incremental Fit Indices   NFI = 0.821; CFI = 0.906

Parsimonious Fit Indices   PNFI = 0.725; PCFI = 0.801

Results of the path analysis (table 7) exhibit that H1, H2, H3, H4 and H8 are supported by the empirical data while H5, H6, and H7 were not supported.

Table 7 *Summary of the Hypothesis Results*

Hypothesis	Relationship	Result of t-value with significance (p-value)	Analysis
H1	Training need assessment has a positive relationship with training effectiveness	t=4.005 (p-000)	Supported
H2	Employees' motivation has a positive relationship with training effectiveness	t=4.126 (p-000)	Supported
H3	Employees' learning has a positive relationship with training effectiveness	t=6.699 (p=000)	Supported
H4	Employees' commitment has a positive relationship with training effectiveness	t=4.266 (p=000)	Supported
H1a	Training framing moderating the relationship between training need assessment and training effectiveness	t=1.194(p=0.233)	Not Supported

H2a	Training framing moderating the relationship between employees' motivation and training effectiveness	t=1.560(p=0.119)	Not Supported
H3a	Training framing moderating the relationship between employees' learning and training effectiveness	t=0.728(p=0.467)	Not Supported
H4a	Training framing moderating the relationship between employees' commitment and training effectiveness	t=2.606(p=0.009)	Supported

DISCUSSION

Current TNA approaches in public sector organizations of Khyber Pakhtunkhwa

Before arriving at any conclusion on the basis of empirical results, it is pertinent to have some acquaintance with the structure of the public training institutes from which the empirical data has been collected. Information collected from the administrators and trainers of these government institutes revealed that there is no concept of conducting any proper TNA. Instead, they have developed some traditional approaches, like employees in the promotion zone must need training, introduction of new process and procedure may prompt training for staff, trainers suggest and develop training on own perception and interest, and the like. One institute somewhat conducts focus group discussion (FGD) for contents development but the same was not updated from the last 10 years. Generally, different departments are tasked to nominate trainees without any analysis. Incompetency theory of training also backs these approaches in public sector organizations, and it is the main reason why these training fail to achieve the set targets. While actually, TNA is the cornerstone in training design, employees' readiness, learning environment, training delivery, ensuring the transfer of training, developing an evaluation plan, choosing training method, monitoring and evaluation of the program. Training engagement theory emphasizes that training should be considered as a whole system, instead of considering different steps in isolation.

H1: Training need assessment has a positive relationship with training effectiveness.

Empirical results exhibit a positive association between TNA and training effectiveness. This evidences that if through TNA the existing gaps in employees' existing KSAs and behavior are identified then bridging these gaps with training will increase training effectiveness. Previous research works (Bowman & Wilson, 2008; Carlisle et al., 2011; Sahoo & Mishra, 2019) also support that TNA as an initial step and provides important inputs for the rest of the steps like contents development, delivery, learning

environment and training evaluation. Similarly, researches (Iqbal & Khan, 2011; Iqbal et al., 2012) further support that TNA has an important contribution to training effectiveness. However, public sector organizations of KPK follow traditional approaches, where trainers are assigned the main responsibility to identify the gaps but unfortunately, these trainers lack the required skills of gaps identification (Warren Chiu, David Thompson, Wai - Ming Mak, & K. L. Lo, 1999). Incompetency theory of training backed this traditional approach of TNA in public sector organizations.

H2:   Employees' motivation has a positive relationship with training effectiveness.

Employees' motivation is also positively associated with training effectiveness, which is supported by the work of (Davids et al., 2014; Iqbal & Khan, 2011; Mielniczuk & Laguna, 2017; Muduli & Raval, 2018; Tsai & Tai, 2003) they further add that employees' motivation has a multifold impact on training effectiveness. Motivated employees actively participates in the training program not only to learn but to practically apply the newly learned knowledge skills in organizational working environment.

H3:   Employees' learning has a positive relationship with training effectiveness.

Data analysis disclosed that employees' learning also has a positive association with training effectiveness. In simple words, an employee equipped with updated knowledge, skills, and moderated behavior will be in a better position to transfer it to working environment to enhance job performance. The work of Davids et al. (2014) supports that learning and transfer has a major role in training effectiveness. Similarly, the results of the work of Rowland, Hall, and Altarawneh (2016) also support that employees learning and learning culture help in training effectiveness and in gaining competitive advantage as well.

H4:   Employees' commitment has a positive relationship with training effectiveness.

Similarly, employees' commitment also empirically proved to have positive association with training effectiveness. These results are in line with the findings of Rowland et al. (2016) that commitment not only increases training effectiveness but it has a major role in gaining sustainable competitive advantage.

Training framing as moderator

Results of the moderating hypotheses (H1a, H2a, H3a, & H4a) demonstrate a mix picture. Out of the four moderating hypotheses only one (H4a: the relationship between employees' commitment and training effectiveness) is supported empirically; the rest of the three hypotheses (H1a, H2a, & H3a) have not been supported by the empirical results, and one of the possible reason may be the absence of TNA

itself, as supervisor himself may not be aware about the performance gaps, this lack of information on the part of supervisor could be one of the possible causes of unusual results (i.e. failure to moderate the relationship mentioned in the posited relationships--H1a, H2a, H3a).

CONCLUSION

These results have very serious implications for the policymakers, administrators, and practitioners and put a stark question mark on the whole training and developing system in public sector organizations. There is a dire need of understanding of these associations in light of the existing theories and empirical pieces of evidence across the world. There is not only a question of heavy expenditures on these public institutes that go down the drain, but there also is a more serious aspect of the issue and that is the ever-increasing incompetency of the public sector due to the absence of effective training and development programs which keep organizations alive and enable them to have better service delivery. Such researches, if validated time and again, maybe treated as a harbinger of default of the public sector. The finding of this study will have multi fold implications, on the most important side it will educate the policy maker about the importance of training and development program, similarly it will guide administrators and practitioner of government sector institutes that how they may increase employee performance during and after training.

Limitations and Future Recommendations

This research is not without limitations. Major limitations are: cross-sectional data, respondents belong to government sector organizations only, considering only BPS 17 or above, current data was collected through questionnaire only, other data collection methods may give more in-depth understanding. In the future, qualitative studies maybe carried to have a more in-depth insight into the issue. Longitudinal studies in three phases (pre, during and post-training feeling) may also be conduct to look at real-time employees' perceptions.

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