



Analyzing the Functioning of NAVTTC's Centers of Excellence for Implementing National Skills Strategy in Pakistan

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Abstract- National Vocational & Technical Training Commission (NAVTTC) has established centers of excellence for improving skill training in various regions of Pakistan. The main objective of these centers is to impart skill training as per industry requirement. As these centers are playing pivotal role for uplifting the economy by improving industry relevant skill, therefore, the purpose of this study was to analyze the functioning of these centers for implementing national skills strategy (NSS) 2009-13. It was descriptive research and survey design was used. Data was collected from 70 principals and 251 instructors from the vocational institutes across Pakistan. A structured questionnaire was developed by the researcher to collect data. Both descriptive as well as inferential statistics were applied with the help of SPSS, version 20.0. After analysis it was found that all the respondents agreed that these centers are playing important role in the provision of relevant skills to the trainees. Principals and instructors agreed that centers are providing them technical assistance for effective teaching and they follow the rules while teaching in the class which are set by the centers. The centers of excellence provide the resources and pedagogical assistance to technical institutes for achieving NSS objectives.

Keywords: NAVTTC, Centers of Excellence, Skill Training

I. INTRODUCTION

Government of Pakistan declared the strengthening of the technical and vocational training as one of the prioritized areas of national development. Improving human resources through technical skills development is expected to contribute in the development of value-added manufacturing with enhanced global competitiveness in the country. Besides, the Government of Pakistan intends that implementation of skill development will enable the induction of unemployed young population into the labor market. National Skills Strategy 2009-2013 was drafted by the Government of Pakistan for the first time to set a direction for improving TVET activities. Establishing Industry Specific Centers of Excellence by NAVTTC is one of the initiatives for implementing the National Skills Strategy (2009-2013).

The National Skill Strategy strives for developing and strengthening the skills among learning communities for the cause of internal and external competitiveness. Training molds human capacity for better performance and directly contributes in economic growth. Better education and training enhances the capabilities of human skills. Vocational training and education is considered as essential instruments for improving productivity, labor mobility and adaptability. These help to redress labor market imbalances and contribute to enhance an organization's competitiveness (Cailods, 2009). Human Development (HD) directly affects the profitability of a country. Improving the human development is required for a stable and significant economic growth that requires prioritizing public funding and government policy. TEVTA was established, in Pakistan, at federal and provincial level, aiming to make opportunities to provide high quality of suitable training. (National Education Policy, 2013)

NAVTEC has developed a policy document entitled Skills in Pakistan: National Skills Strategy for 2009-2013 (NSS). The National Skills Development Strategy 2009-2013 provides a change in the educational paradigm based on establishing center of excellence. Centers of Excellence (CoE) have become an important part of the NSS for realizing TEVT all over the world. Some authors such as Beerkens (2009) described these centers as emerging 'global model' for providing technical assistance to vocational institutes. As these centers are playing key role in providing technical assistance to training institutes across Pakistan, therefore, the present study was designed to explore the functioning of NAVTTC's centers of excellence for implementing national skills strategy in Pakistan.

II. LITERATURE REVIEW

Anera (2017) defined center of excellence as a center where the focus area is the technology learned, skill or trade and the employer or the organizational head takes all the employees or workers in one direction to achieve the targets of the organization as the whole." (P. 78)

The main features of the center of excellence (CoE) depend upon the organizational context and rules of business, but some of the main features are as follows:

- Center of excellence is responsible for improving the expertise in functioning for the better future; it provides better resources throughout the organization to help in solving problems of the employees and trainees of the organization.
- Knowledge management is important for skill development especially when Tacit (verbal communication) is needed. In the constantly changing world of skill education technical manuals need to be updated as per operational requirements. So it is foremost responsibility of CoE is to provide Tacit to the technical institutes.
- There is always a team deputed to see the functional and cross functional part of the organization (CoE), which has a keen understanding on both the situations. (Mohan&Summod, 2012)

The Center of Excellence may provide the resources that is important to the organization in terms of research, guidance, support in training and oversight for other employees in the areas of focus, whether the employees work in part time or full time capacity of the CoE.

The center of excellence may perform the following tasks:

Development and Vocational Training: It is important in all institutions, but it is also important to know the environment. Teachers must constantly promote and improve their technical and coaching skills and must be trained in the organization. The administration should regularly monitor and determine their needs for training or development. At present, the central director and the institute should contact the teacher to obtain the necessary training. (Balderston, 2015)

Performance Appraisal: Each employee has the right to get organized comments from their managers. At least, once a year there should be a regular feedback process for the top level management, the Central executive manager and / or the Hotel and Tourist administrator must organize individual evaluation with all staff. It is possible to analyze current results and eliminate possible difficulties in planning next year's development activities. It enables the center's director to collect employee's opinion on the work of the center. As noted above, if we consider jobs as key players, it is important that they submit reviews organized in these years. (Grosjean& House, 2011)

Monitory benefits and incentives: The central management executives may not be able to adjust the salary scale, but to guarantee the identity and compensation of the employee, to the extent possible. This motivation should not be related to any financial activity, and it might be as simple as possible to thank them for their efforts. Better working environments have consistently shown that employees are encouraged to make extra efforts when their work is accepted and appreciated.

Uplifting: The best services needed by the industries are catered by the center of excellence, or providing subject matter experts in the area of focus

Guidance: CoE may help any organization through all kinds of repositories, tools, knowledge and standards.

Sharing knowledge: Training through practical skill and examinations, giving out qualifications, skill testing, human resource development and formalized roles

Assessing examinations: Center of Excellence should show their efficiency by producing valuable human resource for the industry which makes it considerable to its existence.

Governance: The allocation of funds and human resource are one of its main hurdles in working and thus developing them is one of the main responsibilities of the center of excellence. The organizations must invest in all kind of developmental and offer savings at the expense of the scope of their proposals. Furthermore, coordination between other interests of the company is necessary to allow the CoE to create value.

Financial Analysis: Some foreign funded non-governmental organizations have embraced the idea that provide by the CoE to get business requirements. (Gillett, 2013)

Relationships: Business communications in corporations, CoE normally supports employee and customer relations and activities. At a beginner's level, the line business is the main focus for development.

Risk management and following rules: Many departments follow this kind of traditions informally, without calling them the CoE. Insurance and financial institutions invariably assume this function. Other verticals may also cover the right to refuse any change in the business processes and external communication at any time. Ideally, the CoE help to implement the standards required by the top level management.

Human Development: Different “function” or identifies process in many businesses have embraced at a strategic level that meets the definition of a CoE. (Jessup, 2009)

Research objectives

Keeping in view the research topic, the following research objectives were formulated:

- i. Analyze the functioning of NAVTTC’s centers of excellence for improving skill training in Pakistan as perceived by principals and instructors of technical and vocational training institutes.
- ii. Explore the services provided by Center of Excellence to technical training institutes under NAVTTC.

Research Questions

- i. What is the functioning of NAVTTC’s centers of excellence for improving skill training in Pakistan?
- ii. What are the services provided by Center of Excellence to technical training institutes under NAVTTC?

III. THEORETICAL FRAMEWORK

The present study was designed to explore the functioning of NAVTTC’s centers of excellence for implementing national skills strategy in Pakistan. National Skills Strategy (2009-2013) is defined as a policy document which proposes a paradigm shift from curricula based education to competency based training for the provision of industrial relevant skills to the trainees (Govt. of Pakistan, 2009). Implementation of National Skills Strategy, in this research, is taken as to what extent this document is successful to provide competency based training to the trainees.

Center of Excellence means a corporate group or team that leads other employees and the organization as a whole in some particular area of focus such as a technology, skill or discipline (Barbara, 2007). In this study, functioning of the Center of Excellence means whether these centers provide technical assistance to the technical and vocational institutes across Pakistan for the achievement of NSS’s objectives (Parks, 2013).

In the present study to measure to what extent centers of excellence under NAVTTC are functional to assist technical and vocational institutes for implementation of NSS, the researchers followed the operational manual for a model of center of excellence which was prepared by USAID, 2006. There were eight aspects addressed in this model to measure whether CoEs were functional or not and which type of assistance was provided to the technical and vocational institutes by the center of excellence (Ma’moon, 2011).

IV. RESEARCH METHODOLOGY

It was descriptive research and survey design was used. Descriptive studies involve one-time interaction with groups of people (cross-sectional study) or a study might follow individuals to take data over extended period of time (longitudinal study). In this type of research study there is no manipulation of variables or interaction with the participant but information is collected within an existing environment (Grosjean and House, 2011).

The Population of this study was comprised of all the principals (3581) and instructors (14534) of vocational institutes across Pakistan who were working in vocational institutes in the academic year of 2017-2018. (www.navttc.org.edu.pk).

By applying systematic random sampling technique and following Nawan’s theory of sampling, 70 principals and 284 instructors were selected from 8 regions of Pakistan i.e. AJK, Balochistan, FATA, GB, ICT, KP, Punjab, and Sindh. Moreover, researchers used systematic random sampling for selection of principal and instructors from these regions because population of the respondents was uneven in these regions. Mugenda (1999) recommended that a minimum of 10 % sample from accessible population is required for a descriptive study. Nawan (1982), described that if the population is in hundred or few thousands a minimum of 10% or 5% sample can be taken for survey research (Balderston, 2015). Therefore, this study is consisted of sample drawn by using Nawan’s approach.

Research Instruments

Two questionnaire were developed for this study, one for the principals and one for the instructors to explore the information regarding functioning of centers of excellences by the NAVTTC for the implementation of NSS. Each questionnaire was comprised of 09 items regarding characteristics of CoEs based on five points Likert Scale.

Pilot testing of the instruments

In order to determine the reliability, the developed questionnaires were administered to 12 principals and 48 instructors of vocational institutes who were not included in the sample. Data was coded and entered into computer. Reliability of the responses was checked by calculating CronbachAlpha coefficient by using SPSS software (20.0 version). The computed final alpha reliability of principals' questionnaire was 0.79 and instructors' questionnaire was 0.86 which shows that items in the questionnaire were consistent.

Procedure of the Data collection

Initially, the researchers visited head offices of all (8) regions to collect the list of vocational institutes across Pakistan, in which NAVTTC programs were running. Then, the researcher personally visited to the selected vocational institutes of all regions along with senior official of NAVTTC, requesting them to provide the information and resource to deliver questionnaires. With the help of senior official of NAVTTC, the researchers trained a data collection team in every region for delivering and collecting questionnaire. The researchers along with team visited twice in selected vocational institutes for the collection of data. This process was started from the mid of February, 2018 till September 2018.

Data Collection and Analysis

Data was collected by using self-developed questionnaires. The collected data was coded and entered into computer for analysis. Both descriptive and inferential statistics were applied through SPSS software (version 20.0). Descriptive statistics were used to compute frequency and percentage of the responses of respondents regarding CoEs. ANOVA was applied to find differences among regions and across professional experiences of principals and instructors' opinions. Independent Sample t-test was applied to find out differences between type of institutes and gender of principals and instructors.

V. RESULTS

The results of the study are discussed below.

Table 1. Frequency and percentage of the responses (Principals=70 and Instructors=284,) regarding establishment of center of excellence under NAVTTC, (df=68 and 250)

S#	Statements	Respondents	\bar{X}	Std.D	t	Sig
01	NAVTTC established center of excellence to assist vocational institutes	Principals	3.66	1.006	30.428	0.000
		Instructors	3.73	.933	63.329	0.000
02	My regional Center of Excellence provide me technical assist to run my institute	Principals	3.89	1.084	29.990	0.000
		Instructors	3.68	1.279	45.556	0.000
03	I follow the roles which were set by the competency center	Principals	4.33	.812	44.626	0.000
		Instructors	4.21	.916	72.828	0.000
04	The team of the Center of Excellence helps me to obtain NSS objectives	Principals	3.49	.989	29.489	0.000
		Instructors	3.84	.911	66.768	0.000
05	Our regional center of excellence guides trainee for employment	Principals	4.01	1.136	29.575	0.000
		Instructors	3.27	.879	58.890	0.000
06	Instructor's training is conducted by the competency center in my institute	Principals	4.00	.868	38.551	0.000
		Instructors	4.02	.992	64.148	0.000
07	Center of Excellence provide me resources to achieve NSS objectives	Principals	3.91	1.201	27.274	0.000
		Instructors	3.91	1.313	47.165	0.000
08	I am provided pedagogical assist. by the center of excellence	Principals	3.93	1.094	30.033	0.000
		Instructors	4.19	.930	71.336	0.000
09	Competency center guide me to allocate funds	Principals	3.84	1.016	31.635	0.000
		Instructors	3.70	.967	69.137	0.000

It is indicted in the following table that the computed t-values of all statement of principles and instructors (27.274-44.626 and 45.556-72.828) are greater than table value (2.000, and 1.972), and computed sig. values of all statements of principals and instructors is 0.000 that is less than the critical value=0.05, which shows that mean value of all the statements of the principals and instructors is significantly higher than the cut point. Std.D of all statements No. 1, 2, 3, 4, 5, 6, 7, 8, and 9 is (.872-1.201, and .879-1.313) which indicates that the data points are spread out over a wide range of values (1-5, Likert scale). Therefore, it may be concluded that principals and instructors agreed that NAVTTC has

established centers of excellence for achieving NSS objectives. It is also evident that according to respondents COEs are effectively providing services such as teachers' training, technical assistance, resources, funds allocation, employment counseling and to technical and vocational institutes to improve their functioning.

Table 2. Difference of opinion among regions

Respondents		SS	df	MS	F	Sig.
Principals	Between Groups	119.152	7	17.022	1.000	.440
	Within Groups	1055.720	62	17.028		
	Total	1174.871	69			
Instructors	Between Groups	115.627	7	16.518	.906	.502
	Within Groups	4429.305	243	18.228		
	Total	4544.932	250			

It is indicated in the following table that the computed F-value of principals (1.000), and instructors (.906) at df (7) is less than the table value (2.15) and computed sig values (.440, and .502) is greater than the critical value (0.05) for principals and instructors' opinions regarding establishment of center of excellence. So, there is no significant regions wise difference in the opinions of principals and instructors regarding establishment of center of excellence under NAVTTC. Therefore, it may be concluded that principals and instructors of all regions/provinces had the same opinion about the functioning of center of excellence under NAVTTC.

Table 3. Institute wise difference of opinion among respondents

Respondents	Variable	M	St.D	t.value	Df	Sig.
Principals	Public	50.63	4.241	.557	68	.579
	Private	50.04	4.099			
Instructors	Public	45.62	4.430	-.514	249	.608
	Private	45.92	4.191			

** Level of sig < .05

It is indicated in the following table that the computed t-value of principals (.557), and instructors (-.514) at df (68, and 249) is less than the table value (2.00, and 1.972) and computed sig values (.579, and .608) is greater than the critical value (0.05) for principals and instructors' opinions regarding establishment of center of excellence. So, there is no significant type of institute's wise difference in the opinions of principals and instructors regarding establishment of center of excellence under NAVTTC. Therefore, it may be concluded that principals and instructors of public and private vocational institutes had the same opinion that CoEs are providing assistance to institutes for imparting desired skills to trainees.

Table 4. Gender wise difference of opinion among respondents

Respondents	Variables	M	St.D	t.value	Df	Sig.
Principals	Female	52.50	4.930	1.411	68	.163
	Male	50.03	4.024			
Instructors	Female	47.00	4.958	1.461	249	.145
	Male	45.69	4.172			

** Level of sig < .05

It is indicated in the following table that the computed t-value of principals (1.411), and instructors (1.461) at df (68, and 249) is less than the table value (2.00, and 1.972) and computed sig values (.163, and .145) is greater than the critical value (0.05) for principals and instructors' opinions regarding establishment of center of excellence. So, there is no significant gender wise difference in the opinions of principals and instructors regarding establishment of center of excellence under NAVTTC. Therefore, it may be concluded that female and male principals and instructors of vocational institutes had the same opinion about center of excellence working under NAVTTC.

Table 5. Experience wise difference of opinion among respondents

Respondents		SS	Df	MS	F	Sig.
Principals	Between Groups	63.726	3	12.745	0.840	.532
	Within Groups	485.643	66	15.176		

	Total	549.368	69			
Instructors	Between Groups	164.258	3	27.376	1.525	.171
	Within Groups	4380.675	247	17.954		
	Total	4544.932	250			

** Level of sig <.05

Principals: 0-10 year=3, 11-20=26, 21-30=40, above 30 year=1

Instructors: 0-10 year=96, 11-20=98, 21-30=60, above 30 year=1

It is indicated in the following table that the computed F-values of principals, and instructs are (0.840, and 1.525) at df (3) are less than the table value (2.74, and 2.63) and computed sig values (.532, and .171) are greater than the critical value (0.05) for principals and instructs' opinions regarding establishment of center of excellence. So, there is no significant experience wise difference in the opinions of principals and instructors regarding establishment of center of excellence under NAVTTC. Therefore, concluded that principals and instructors who had different level of experiences had the same opinion.

VI. CONCLUSION

The present study was designed to explore the functioning of NAVTTC's centers of excellence for implementing national skills 2009-2013 strategy in Pakistan. There are few researches available on this topic. It may be concluded from the finding that principals and instructors of all provinces of Pakistan had that same opinion about the role of NAVTTC to establishing center of excellence to meet the NSS objectives. Majority of respondents agreed that centers of excellence provide technical assist and resources to run technical and vocational institute for achieving NSS objectives. They also follow the rules which were set by the competency center. Their regional center of excellence guides trainee for employment and also conducted training for instructors. They are providing pedagogical assistance and guidance for allocation of funds. It is recommended that as centers of excellence are playing important role for the provision of relevant skills, it should exist at every tehsil level. Further, they should also educate instructors for latest methods of teaching and creating conducive classroom environment for better learning.

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