

Development and Performance of TVET: Analysis of Pakistan

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Technical Vocational Education and Training (TVET) is pivotal for the achievement of socio-economic well beings along with proper utilisation of work force in the development process of the country. Efficient working of (TVET) system enhances the chances of employability, career development and sustainable livelihood. The success of (TVET) sector strongly hinges upon smooth running and well defined roles of organising and controlling bodies. A well-defined (TVET) sector embodies a coordinated, coherent and an organised (TVET) authorities working under a proper hierarchy, accountable for execution of their plans. However, (TVET) sector in Pakistan is beset with overlapping and conflicting functions at three points: Conflicts/overlaps among Federal Ministries/institutions; conflict/overlaps between Federal and Provincial institutions/authorities and conflicts/overlaps among Provincial Ministries/departments, etc. This study presents the various developments over time in TVET sector of Pakistan and analysis is made on the conflicts/overlaps among TVET authorities. Performance of the system is examined along with various forward and backward linkages. Pakistan can use the great potential of its labour force by streamlining TVET as per need of the hour and can become great economic power in this competitive World.

Keywords: TVET, Migrant Labour, Career Development, Sustainable Livelihood, Economic Growth, Pakistan

1. INTRODUCTION

Technical and vocational education and training (TVET) equip people with employable skills make them more productive in various economic fields. TVET augment human potentials and diversifies peoples' choices in order to promote self-employment and entrepreneurship development. It plays significant role for social mobility and sustainable citizenship. Skills development sector in Pakistan historically have been neglected and incapable of meeting the set targets and in up gradation of skills in Pakistan as per local and international market demands. Low productivity, inadequate training, poor and outdated modes of imparting TVET relative to international standards and requirements are the main characteristics of the TVET sector of Pakistan. Pakistan has given attention to TVET since its inception, but the major complaints have been regarding the irrelevance of training imparted, Ineffective policies and governance.

The TVET sector in Pakistan is suffering both in organisation of the sector and the organisational apparatus governing the sector. The TVET sector has neither been acknowledged as a stream of education due to the lack of political will, a proper TVET

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policy, resources, modes of imparting TVET nor the organisational apparatus governing the TVET has capacity to reform due to duplications and conflicts among different authorities established to regulate the TVET. Different authorities have been established both at National and Provincial levels to equip major chunk of workable population with skills and lifelong learning but those have not performed as expected and resultantly Pakistan is lagging behind. The underperformance can be attributed to conflicting and overlapping provisions among federal and provincial authorities regarding their functions and duties. This has led to the confusion among different authorities and chain of command in streamlining the TVET sector in Pakistan. Furthermore, the 18th Amendment to the Constitution of Islamic Republic of Pakistan has devolved the subject of education to provinces, leaving only standards in TVET in the federal competence. This has led to more confusion and affecting the governance many fold, as provincial authorities have started to make policies of their own without taking into account federal standards. Some federal level authorities have overlapping functions for which they are not mandated. The situation has worsened in the backdrop of the fact that neither at national nor provincial level efforts have been made to reconcile and make a comprehensive/compatible legislation to eliminate and overcome the overlapping and conflicting provisions to ensure proper governance.

TVET has been the area on which very little work has been done in Pakistani context. Though few reports of World Bank, ILO, GIZ and even few education polices have discussed the issues and factor affecting TVET sector in Pakistan both in organisational perspective and management of the TVET, yet no viable solutions have been presented except to recommend that TVET sector is required to be reformed in organisation and apparatus governing the TVET organisation. The TVET Reforms Program (TRSP) presently being implemented has also identified Governance Reforms as the first and foremost component yet no progress has been made to overcome and remove anomalies, duplications and conflicts of TVET authorities to make it a coherent, unified and capable to meet new emerging challenges of labour market. The growth and constantly changing TVET sector worldwide means that only such a TVET sector can compete and grow having built-in flexibility to cater for these growth and changes to ensure employment-intensive growth strategy. The growth and emergence of new labour demands have led to address two problems virtually everywhere: the first is to explore ways to make a training system flexible enough and possessing wide coverage and the second is to arrange for and provision of adequate funds and resources to establish and sustain a training system of this type.

2. SIGNIFICANCE OF THE STUDY

This study intends to make a comprehensive analysis of fragmented governance, conflicting and overlapping provisions in applicable laws regulating the TVET. This is an inclusive study conducted to draw insight from the past, enquire about the contemporary approaches both at national and international fronts and suggests a way forward for policy formation with the aim to improve TVET sector in Pakistan having capacity to incorporate the youth bulge in productive economy in coming years having potential to overturn the fortune of Pakistan. This study is primarily a descriptive and highlights the issue of fragmented governance, conflicting and overlapping provisions in laws

concerning TVET organisations. A Qualitative research approach is applied which makes use of secondary as well as primary data. The Laws governing TVET sector in Pakistan have been studied and compared to find out the anomalies, duplications and conflicts among the TVET bodies serving at Federal and provincial levels.

Pakistan is a developing country with higher population growth in which the youth constitutes almost 60 percent of the population. The importance of TVET sector and its capacity to tackle the youth bulk expected to hit the country in coming decades is a serious concern for the government to address which would require priority assigned to the TVET sector and radical initiatives in TVET sector including but not limited to organisational reforms at both federal and provincial level as envisioned by Quaid e Azam Muhammad Ali Jinnah in his address to the first National Education Conference.

The history of TVET across the world manifest that the advanced and developed countries made TVET a national priority which overturned their fortunes by boosting economies. The development of TVET sector of all advance countries reflect coordinated, coherent and an organised TVET authorities working under a proper hierarchy, accountable for their actions. Setting up an organised and coherent organisational apparatus is a founding stone on which all the reforms and innovative ideas and theories are executed as per changing demands. The Development of TVET worldwide reveals that new emerging trends and theories have been adopted and implemented with the view to cater emerging needs but only such countries are having success stories which had uniformed, harmonious organisational apparatus with no duplication and conflict in functions of authorities serving the TVET sector.

Table 1

Development Phases of TVET in Pakistan

Phases of Implementation of TVET	
1947-1958	Initial policy formulation stage
1959-1970	Expansion and development period
1971-1977	Experimentation period
1977-1988	Second expansion period
1989-1997	Quality improvement period
1997-2010	Good governance and self-reliance
2009-2016	TVET reforms and implementation

TVET Apparatus Existing Before Partition

The Sargent plan in 1944 introduced various reforms for technical and vocational education in India. All-India Council for Technical Education was established in 1946 and the Scientific Manpower Committee in 1947 was the organisational apparatus serving the TVET sector in all India though no technical institute was operational in the areas comprising Pakistan today. However, the parts of pre independence India which became Pakistan had a very low industrial base, inheriting only 4 percent of the total industrial sector. After Partition Quaid e Azam Muhammad Ali Jinnah, immediately called First Education Conference at Karachi on 27th November 1947, wherein it was decided to establish the council of technical education.

The Council of Technical Education

The Council of Technical Education was established in 1948. The Council devised a comprehensive development plan and strategies for the training of technicians, entrepreneurs and skilled and semi-skilled workers. The council recommended establishment of the first three polytechnics by 1955 which were established with assistance of the Ford Foundation during the first five year plan.

Establishment National Education Commission

The national education commission was established under the First Five Year Plan which recommended for creation of directorates and boards of technical education and technical teacher training wings and resultantly directorates and boards of technical education and technical teacher training wings were established in 1959 within the Polytechnics.

Apprenticeship Ordinance 1962

Second Five Year Plan (1960 to 1965) made a great emphasis on technical and vocational education by setting comprehensive and detailed targets though only 40 percent were achieved. The promotion and regulation of apprenticeship training was a major policy concern which resulted in formulation of apprenticeship ordinance 1962.

Placement of Vocational Schools under Education Department

The Third Five Year Plan (1965-1970) felt the need to treat vocational education at par with the conventional education and it was decided to place vocational schools under the Education Department instead of the Industries Department for improvement and expansion of TVET sector along with establishment of few new centers under the Plan.

Education Policy 1970

The need was felt for a new education policy to streamline the education of the country including TVET. The policy very candidly acknowledged the state of TVET sector in following words, "Education and training are a backbone in the economic life of the nations. Without capitalising on the vast human resources of the land, the progression and sustainability in the economic sector of Pakistan will remain a dream". The policy discussed all the issues being faced by TVET regarding missing systematic pattern of training, fragmented training, lesser enrollment in polytechnics, limited number of vocational institutes and limited contribution by private industry through Apprenticeship, scattered training and indefiniteness of its contents. (New Education Policy, Islamabad 1970). However, only 09 new polytechnics could be established instead of proposed 14.

Education Policy 1972-1980

The 1972-1980 Education Policy was articulated in matter of fact tone instead of philosophical pronouncements. The policy aimed at exterminating illiteracy on emergent grounds by making elementary education accessible and available in shortest possible time and also cater for the youth education through massive adult education program, the

relevance, equity and access in education is to be ensured by addressing the needs of downtrodden and marginalised lot of the society specially, women and physically handicapped from across the country.

Private educational institutes were nationalised in pursuance of the policy which put restraints on TVET budget and even after reversal of the nationalisation of such schools in 1979, the investment in private TVET institutions was markedly slow except commerce. 6 new polytechnic and 27 commerce institutes were established and seven polytechnics were upgraded. Furthermore, curriculum of technical institutes was revised. The main emphasis of the policy was on the introduction of agro-technical scheme for secondary schools to enhance employability of school leavers.

Education Policy 1979

The education policy of 1979 laid down its policy direction as follows by putting greater emphasis on importance of institutional, organisational and administrative arrangements;- “Government’s full commitment and dedication in terms financial support by allocating dedicated budget for achieving the objective of universal primary education could not be materialised , hence along with government, the role of local community is to be enhanced by establishing strong management capability at the local levels for achieving the intended goals”

The major initiative of the policy was to establish 1000 Village Workshop schools for training in “mother trades like carpentry, masonry and agriculture”. The policy also focused the development of appropriate skills linked with needs of community. The National Education Policy, 1979, also proposed for introduction of evening programs and establishment of separate skills development schools for drop-outs along with a national technical teachers training college. However, most of the proposals set forth in Fifth Year Plan could not be materialised.

Period of 1960s to 1980s is considered as expansion period of TVET in Pakistan though the expansion was quantitative in nature and mainly the expansion was outside the formal TVET sector. The overseas labour boom and demands thereof, particularly in Middle East countries was a major factor in this expansion linked directly with shortages of skilled labour in Pakistan.

Establishment of National Training Board /Provincial Training Boards 1980

The absence of proper organisational apparatus in the country both at national and provincial levels was being realised as one of the core reason for below par performance of TVET sector in Pakistan, therefore National Training Board and provincial training boards were established at both national and provincial levels on the recommendations of the ILO and IDA. The National Training Board (NTB) and provincial training boards (PTB) were given the statutory obligations to regulate and promote vocational training and to asses existing and future training needs with reference to national and international labour market demands.

National Vocational Training Project Phase-I (1981-1987)

National Vocational Training Project (NVTP) is considered as period of major expansion and development of vocational training facilities in Pakistan. The project was

financed by World Bank. In the same period the network of polytechnics was expanded and existing polytechnics were upgraded. The first polytechnic for women was also established along with establishment of National Technical Teachers Training College during this period, funded by Asian Development Bank.

The Seventh Five-Year Plan (1988-1993)

The Seventh Five Year Plan assigned importance to TVET sector as well by proposing improvement and expansion of TEVT and to increase total enrolments by over 33 per cent. The plan further proposed to establish 36 new poly/mono-technics and consolidation of existing commercial institutes and the upgrading of six commercial institutes to colleges along with establishment of 06 commerce colleges. It was also emphasised to introduce new technologies in the polytechnics and the National Technical Teachers' Training College, Islamabad was also stressed to be operationalised at full potential.

The Seventh Five Year plan proposed establishment of men polytechnic at district level and female polytechnic at divisional level along with it a college of technology was also proposed at divisional level. The plan also reaffirmed earlier proposals for legislation to enable industrial training for engineering and technical graduates and to establish production units in selected Technical and Vocational Institutions. The Council of Technical and Vocational Education for the planning, coordination and evaluation of technical and vocational programs as proposed in Sixth Five Year Plan was also reiterated. Furthermore, under the National Vocational Training Project Phase-II private sector was encouraged to participate in the technical and vocational education by providing flexible loan and tax incentives

Establishment of National Vocational and Technical Education Commission 2005¹

National Vocational and Technical Education Commission (NAVTEC) was established in the year 2005 for providing guidelines, policy directions and coordination among TVET authorities in Pakistan, but TVET falls on such priority of the government that a national level authority with to mandate to give national policies was established by notification of the Cabinet Division without giving it a national level mandate through an Act of parliament. The authority established without proper legal mandate was required to regulate and provide guidelines to duly constituted authorities having derived their authority from respective statutes. NAVTEC was established as the apex autonomous body to revamp and reform the TVET sector of Pakistan, the development across the globe had highlighted importance of TVET and the role it can play in a country's development.

National Education Policy 2009²

National Education Policy 2009 is comprehensive document which has lamented the present state of education in Pakistan including technical and vocational education. The policy has very candidly acknowledged loopholes of the existing system regarding

¹National Vocational and Technical Training Commission Act, 2011 Act No. XV Of 2011

²National Education Policy 2009, Ministry of Education Government of Pakistan

clarity of respective roles and functions of the federal-provincial-district governments which has compounded the confusion due to absence of articulation of clear strategies. The Policy further highlighted the fragmented governance as one of the core issue of present state of education in Pakistan including the TVET. The Policy has rightly identified that centrality of the federating units is a must for improving the sector and stressed heavily on coordination and facilitation among the federating units to reform the sector. The Policy has laid special emphasis on reformations of the TVET sector in Pakistan on the touchstones of change of existing curricula compatible with labour market demands. The policy also proposed the idea of technical matriculation and introduction of TVET at high school level to have two-way link with the general education.

A new idea of job shadowing approach was also proposed to familiarise trainees with the work environment. The policy further proposed to strengthen the Skill development by ensuring access and quality by removing and overcoming fragmented governance, duplications and conflicts of federating units. The policy identified following three problems affecting TVET in Pakistan as Principal problems: (i) weak linkages with other education sectors and the labour market, (ii) deficiencies in the governance of the sector; and (iii) the need to expand supply of technical skills of good quality.

The Policy proposed a comprehensive action plan to address and improve the TVET sector in Pakistan Actions including inclusion all stakeholders like Industrial/Agricultural/Service sectors and Business community in current and future reforms of TVET, development of skill standards and curriculum at national level, recognition of prior learning and measures to remove social taboos attached to TVET and promote dignity of work in line with teachings of Islam.

Launch of National Skills Strategy 2009³

The launch of National Skill Strategy (NSS) 2009-2016 is termed as first sincere efforts involving all stake holders to bring institutional, organisational and developmental pattern of TVET sector in Pakistan. The NSS is also unique in the sense that it brought federal and provincial authorities on the same page in order to bring TVET reforms in Pakistan and first ever time in the history of Pakistan the federal and provincial authorities pledged to work in conformity and in support of each other as per constitutional mandate. NSS highlighted specific reforms for the TVET sector of Pakistan to make it a vibrant sector including development and implementation of a national vocational qualifications framework. NSS identified following key areas of intervention Provision of Relevant Skills as per Market Demands.

- Introduction of CBT
- Inclusion of private sector as key stakeholder
- Apprenticeship system to reformed to make it more relevant
- Access, Equity and Employability as the Ultimate Goals
- A flexible training delivery system
- Informal workers to be integrated in TVET system

³The National Skills Strategy 2009-2013, National Vocational and Technical Education Commission Prime Minister Secretariat Islamabad, Pakistan.

- Skilled workers to be provided with better mobility
- Status of skills development to be improved
- Quality Assurance
- Launch of National Qualifications Framework
- Registration and accreditation of institutes
- Management of training institutes to be improved
- Trainers to be provided training opportunities

The ILO Global Trend Report 2014 has termed the agenda set by NSS as covering national and international contexts and describes that it has potential to address prevailing skill divide, mismatch and inactivity of TVET by placing active labour market policies.

Establishment of National Vocational and Technical Training Commission 2011

The National Vocational and Technical Training Commission (NAVTTTC) was established at federal level to provide regulation, coordination and policy direction for vocational and Technical Training and connected matters as an autonomous organisation. The Act constituting the NAVTTTC also rescinded the earlier constituted NAVTEC under a notification of Cabinet Division in 2005, so in fact NAVTTTC is successor of NAVTEC, an inferior body established under a notification only.

Establishment of Provincial Technical and Vocational Training Authorities (TVETAs)

The TVET in provinces have been regulated through different authorities in fragmented way and introduction of technical and vocational authorities is very recent in the history of TVET development in Pakistan.

Balochistan

The Balochistan Board of Technical Education Ordinance, 1962 have been the sole legislation for the development of TVET sector in the province until very recently when it has been repealed through Balochistan Technical Education and Vocational Training Authority Act, 2011 which has provided for a technical and vocational authority “to streamline and promote TVET training and education in various skill sector and technologies and to extend financial support for training programs and for matters ancillary or incidental thereto”⁴.

Khyber Pakhtunkhwa

The Khyber Pakhtunkhwa Technical Education and Vocational Training Agency Ordinance, 2002 was the only legislation providing for the development of technical and vocational education in the province which has been very recently repealed by Khyber Pakhtunkhwa Technical Education and Vocational Training Authority Act, 2015 which has provided for establishment of technical and vocational training authority “to impart technical and vocational training which is quality assured in terms of its design and delivery, within the institutions under the administrative and regulatory control of

⁴Balochistan Technical Education and Vocational Training Authority Act 2011, Act No. II Of 2011

Authority, and are accredited with properly equipped labs to provide hands on skills to the trainees, to meet the national and international market needs.”⁵.

Sindh

Sindh has also very recently enacted Sindh Technical Education and Vocational Training Authority Act 2010 to establish Sindh Technical and Vocational Training Authority to “Regulate and execute technical education and vocational training in close collaboration with employers in the Province and for matters connected therewith and ancillary thereto.”⁶

Punjab

The establishment of technical and vocational training authority in Punjab runs back to 1999 when it was established through an Ordinance.

TVET Reform support program⁷

TVE Reforms Support Program, a five-year initiative launched in April 2011, supports National Vocational and Technical Training Commission (NAVTTTC) in the center and Technical Education and Vocational Training Authorities (TEVTAs) and other partners in the provinces and regions in implementing the NSS 2009-2013 reform agenda. The TVET Reform Support Program is co-funded by the European Union, the Embassy of the Kingdom of the Netherlands and the Federal Republic of Germany and being implemented by GIZ. It aims to assist the Pakistani governments at the central and provincial levels to implement the NSS. The Component 2 of this program is to foster the establishment and implementation of the National Qualifications Framework and the human resource development for TVET.

National Vocational Qualification Framework 2015⁸

The launch of Pakistan National Vocational Qualification Framework (NVQF) is a first product of objectives set forth under National Skills Strategy 2009. The NVQF has indirectly aimed at achieving the goals of organisational, institutional and pursuance of policy by all federal and provincial authorities in their respective mandate but in a manner which is integrated, uniformed and coherent. Improvement of quality of TVET and to increase achievement of skills and knowledge as per industry’s needs are main objectives of NVQF, to be achieved through a unified and coherent policies that ensure the quality of achievements in TVET. NVQF has also proposed a national qualifications system, by providing pathways for entry, progress and achievement of such qualification. NVQF has also allowed credit accumulation to trainers and has proposed a system of equivalences, allowing transfer from one qualification to another, and horizontal and vertical progress is one of the main characteristics of NVQF. The labour force being trained in informal and non-formal which constitute 70 percent of the total labour has

⁵Khyber Pakhtunkhwa Technical Education and Vocational Training Authority Act, 2015

⁶The Sindh Technical Education and Vocational Training Authority Act, 2009. Sindh Act No: VIII of 2010

⁷ Pakistan’s technical and vocational education and training reform 2011, Government of Pakistan

⁸ NVQF, 2015 Pakistan

been first time given an opportunity to be part of TVET sector through recognition of Prior Learning. The history of development of TVET in Pakistan represents that though efforts have been made to develop the sector yet all the initiatives and interventions made by at any given point of history have been made under certain political motives and on the pursuance of some donors and every new initiative was launched without paying heed and taking into consideration the existing structures and the functions being performed and above all the constitutional mandate of such authority being established. The authorities so established thus proved counterproductive for the TVET sector instead of improving it due to duplication and conflict in functions and absence of willingness of authorities to work under a uniformed, integrated and organised manner. Such has been the state of affairs of TVET in Pakistan that identical organisational apparatus comprising of conflicts and duplications exists both at federal and provincial levels and inter se federal and provincial levels. The establishment of different authorities at federating units manifest that focus of all these authorities appear to establish such authorities only and not to provide for a uniformed and integrated apparatus and set ups having capacity and mandate to serve in close collaboration with each other to serve the TVET sector of Pakistan. But in Pakistan the development of the workforce's skill has been the most neglected sectors and the formal government institutes have produced a very small portion of the skilled work force. Only 3 percent of the all the trainees enrolled in TVET sector, which is lowest from any South Asian countries. The early TVET system in Pakistan has more focused on rote learning rather than practical approach to achieve the desired objectives.

3. PERFORMANCE OF TVET SECTOR IN PAKISTAN

At the time of inception Pakistan had a very low industrial base, contributing small fraction of the total economy. Its journey to industrialisation started in 1950s and achieved notable progress in the 1960s. To ensure sustainability and development of major sector of economy i.e manufacturing sector, the technical and vocational education was expanded. The momentum, however, could not keep its pace due to a lack of resources available for strengthening the TVET sector, as well as diminishing commitment by succeeding governments towards the TVET sector. Lack of coordination amongst various TVET stakeholder, inadequate funding, trust deficit in the industry / employer, lesser political commitment and low priority, pose a great challenge to development and growth of the TVET System. The sector due to this very reason has gradually lost its way to meet industry needs and cope with new emerging trends. The children got dropout from primary level of education, make a bigger chunk of population along with a large number of non-school-going, especially in the rural areas, left with informal skill-imparting sector commonly known as the Ustad Shagird (master-apprentice) system of traditional apprenticeship. This kind of informal sector transfer skills hands on which are generally task-specific and limited in scope. To understand the importance of the human resource development in terms of workforce development in purview of expanding demography the dropouts and out of school children are to be equipped with marketable and demand driven trades by recruiting them in industry led training programs. Such training programs will enable the potential candidates to become integral part of economic development of the country.

The conventional curricula was last developed in 70s with the help of GTZ are mostly now out-dated because no industry is using the technology of 70s. Moreover, for every five trainees, one person was being employed in TEVTAs. The present TVET sector neither able to produce large number of semi-skilled, skilled workers, technicians, supervisors, experts and engineers to find a decent job in the labour market nor our labour force position itself in the international market to compete and increase foreign remittances from abroad.

Presently Pakistan faces acute problems of relevance and quality, due to which the employment growth remains weak, and large numbers of potential workers with mismatched skills remain out of the labour market.

Paradigm Shifts a Need of the Day

Persistent weakness in labour markets results in lowering of economic growth and necessitates Paradigm shift in overall design of TVET. In a developing country like Pakistan, where workforce is characterised as having low skills and poorly prepared to compete in today's globalised world resulting in overall negative impact on the economic growth of the country both in terms of domestic earnings and foreign remittances due to less participation in the economic activities. The Table 2 indicates the trends in the labour force participation in the country which is declining with passing years.

Table 2

Year-wise Labour Force Participation in Pakistan

Indicators	2001-02	2003-04	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2012-13	2013-14	2014-15
Labour force participation rate											
Both Sex	50.5	50.7	53.0	52.5	52.5	53.1	53.5	53.4	53.1	53.1	53.3
Male	82.7	82.7	84.0	83.1	82.4	82	81.7	81.9	81.1	81	81.4
Female	16.2	18.0	21.1	21.3	21.8	23.1	24.1	24.4	24.3	25	25
Share of wage and salaried workers in total EMP											
Both Sex	40.4	38.5	38.4	38.3	37.1	36.8	36.5	36.9	39.7	39.8	39.4
Male	40.9	39.8	41.2	41.5	40.6	40.5	40.7	41.2	43.8	43.5	43.5
Female	37.1	31.5	26.6	25.1	22.9	22.6	20.8	21.6	24.8	27	25.3
Share of wage account workers in total EMP											
Both Sex	39.9	38.6	36.8	36	35.9	34.8	35.6	36.3	34.9	36.6	37.2
Male	43.7	42.9	41.5	41.1	41.2	40.1	41.3	41.8	40.1	41.6	41.8
Female	16.5	17	16.2	14.3	13.9	14	14.5	16.6	15.9	19.6	21.5
Share of EMP in the informate economy											
Both Sex	63.8	69.4	72.3	71.5	72.4	73	72.9	73.5	73.3	73.3	72.3
Male	64.1	69.9	72.2	71.6	72.4	73.1	73.0	73.9	73.6	73.4	72.2
Female	60.8	64.5	73.1	69.9	71.7	71.6	72.7	70.6	70.9	72.5	72.9

Source: Pakistan Bureau of Statistics.

By keeping in view the knowledge economy based jobs in the coming years, demand for higher levels of competencies and skills will continue to grow at a rapid pace. The individuals as well as entrepreneurs get competitive edge due to knowledge, skills and talent in an ever-changing work environment. The growth through enhanced productivity of human capital can be ensured by the skilled and knowledgeable workforce. The table below regarding profession-wise profile of Pakistani migrant worker reflects that unskilled and illiterate workers constitute around half of the total migrant workers and only small proportion 2.75 percent workers are doing white collar jobs.

Table 3

Profession-wise Profile of Pakistan Migrant Workers (2008-15)

Profession	Number of Emigrants	Percentage
Highly Qualified	44188	1.9
Highly Skilled	19101	0.8
Skilled	948104	40.8
Semi-Skilled	374803	16.1
Unskilled	935555	40.3
Total	2321751	100.0

Source: Bureau of Emigration and Overseas Employment.

Similarly it is evident fact that the technical and vocational trades at the eve of modernisation need to equip it with the latest trends by adapting new changes. As in the table below we can see that the employment trends in various occupations have been declined over the period, due to the fact that workforce does not meet the needs of the industry and employer, which is alarming and warrant policy decisions for upgrading the TVET sector in terms of TVET design and delivery to enable the workforce to meet the industry needs and secure decent work. However, it is observed the distribution of employed persons in key occupational area is downward directed, exhibiting grave situation of the TVET as shown below.

Table 4

Percentage Distribution of Employed Persons with Technical/Vocational Training by Major Occupational Groups

Occupation	2001-02	2003-04	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2012-13	2013-14	2014-15
Legislators	10.7	10.7	14.3	13.4	6.3	6.8	5.3	4.7	4.5	1.5	2.0
Professionals	8.1	3.9	5.5	7.2	1.4	1.3	1.1	1.5	2.1	3.2	3.0
Technicians	21.5	14.5	24.7	28.1	7.9	6.9	6.4	5.9	5.8	3.9	3.5
Clerk	3.6	3.6	5.8	4.4	1.7	1.2	0.8	0.8	0.8	0.9	1.0
Service	2.3	2.8	4.5	2.3	3.3	3	3.7	3.6	3.7	8.1	7.0
Agriculture and fishery workers	5.9	7.3	5.8	6.3	7.2	11.1	8.4	8.6	8.2	13.5	16.6
Craft and trade workers	28.8	41.5	22.8	26.4	55.8	50.3	52.1	51.4	50.8	44	42.3

Source: Pakistan Bureau of Statistics.

It is of utmost importance to realise that a large number of young people are working in the informal sector of learning, which needs to be integrated in the formal system by setting priorities for national education plans through policy decisions. The ever changing technology and Globalisation has made life-long learning as imperative feature skill acquisition to ensure its relevance and effectiveness. The establishment and placement of TVET programs and institutions as vehicle for regional integration and cooperation and socio-economic well-being is greatly dependent on a modernised, revitalised, and harmonised TVET, as it embodies improvements in infrastructure, technological progress, flexible and relevant training delivery and good governance. The

research and international social indicators demonstrate that countries having better prudence in TVET have invested a lot in the sector to achieve even bigger rewards like that of Thailand, Singapore, Korea, Malaysia, Taiwan Sector whereas the countries, such as Pakistan that invested less in the area, and have fallen behind in socio-economic progress and producing low quality products, poor technology and unskilled labour force. The economy has, so far, not produced managers, professionals and a knowledgeable workforce needed for achieving a higher productivity and required value addition. As shown below in the table that the Technical concepts of the workforce and practical skills, which constitute the core part of the technical job market is poor, similarly the soft skills like the professionalism, literacy numeracy level, communication skills and occupational health and safety measures are also at low level.

Table 5

Abilities Developed Through Traditional Curricula in Vocational Institutes

Aspects of Evaluation	Polytechnic Programme			Vocational Programme		
	Poor	Fair	Good	Poor	Fair	Good
Technical Concepts	46	41	13	28	60	12
Practical Skills	55	33	12	27	54	19
Repair/Maintenance/Trouble Shooting	55	37	8	27	58	15
Commercial Skills/Reports Writing	63	29	8	44	48	8
Safety Consciousness	46	40	14	31	54	15
Quality Mindedness	43	43	14	28	60	12
Others	33	67	–	–	100	–

Source: Asian Development Bank, annual report on vocational institution 2005.

In broader context overall contribution of different economy sectors to the gross domestic production has been decreased over a period of time owing to the inability of the country to improve vocational and job skills and to include creative and cognitive skills. The failure to focus on interpersonal and social skills has resulted in loss of output, exports and employment and slow growth as well. Inward looking policies, limited supply of skilled workforce, outdated technology are few of the factors contributing to the neglect of the sector.

TVET Sector and Migrant Labour Workers

Differences in living standards, wages and other supply and demand conditions in labour markets of different countries results in International migration. This is evident that South Asia has been exporting millions of migrants to other parts of the world due to excess labour supply and high population density.

Pakistan's remittances are a significant source of foreign exchange earnings, which are primarily originated from the earnings of semi-skilled and unskilled workers, as Pakistani workforce has occupied low skill jobs. The export of manpower from Pakistan is one of the major sources of earning foreign remittances. In recent years the increase in the remittances is there but it can be further accelerated at increasing pace with the availability of better and high skilled workers of Pakistan workers to meet international market demand.

Table 6

Workers Remittance 2007-2008 to 2014-2015

Year	US Dollars in Millions
2007-2008	6,451.24
2008-2009	7,811.43
2009-2010	8,905.95
2010-2011	11,200.97
2011-2012	13,186.58
2012-2013	13,922.00
2013-2014	15,837.00
2014-2015	18,720.00
Total	96,035.17

Source: State Bank of Pakistan.

Developing countries like Pakistan, are required to improve skills level of its labour force to utilise imported foreign technology. Therefore, role of TEVT needs to be highlighted; otherwise Pakistan will lag behind in the race of international competitiveness. The composition of skills required for the new production structures and processes has changed and the role of technology in industries has been enhanced due to greater sophistication in quality control procedures.

Migrant Labour Worker's Access to Limited Countries

Due to low priority of government for up gradation of skilled workforce and exploration of new and avenues so that Pakistani labour can tap its potential, greater chunk of labour force is concentrated to the GCC and middle east countries as compare to neighbouring countries workforce which has equipped itself with latest technologies and soft skill and taken over the global market. The Table 7 reflects the quantum of Pakistan migrant workers densely spreaded over Middle East countries and very meagre presences in advanced countries.

Globalisation Underscores Radical Changes in the Technology

The developing countries are being compelled to face new challenges to their economies and labour markets due to globalisation and have also made it imperative to be competitive for scientific and technological innovations. It has obligated such countries to make their education and training programs need-oriented, multi-skill and flexible enough to cater local and international demands. TVET has been considered for lower classes and professions like that electricians, plumbers, mechanics and such like professions in many countries in 20th century but the concept has evolved for more specialised skills and professions covering all the professions due to globalisation and has thus increased the importance of TVET many a folds and its social status as well.

The competitive prices with improved quality and introduction of new products through innovations are the main challenges of present day firms which are tried to achieve by these firms through better skilled labour force which can be gauged from the fact that at present 85 percent of the world jobs are classified as Skilled as compared to

Table 7

1950 when 80 percent were classified as unskilled. The present day socio-economic factors owing to shifting technologies place greater premium on TEVT resources for sustainable development and growth throughout the world and Pakistan is not an exception as skills demanded are constantly changing due to expansion of employment across new industries and occupations. The benefits of better skilled and mobile workforce have been acknowledged worldwide and compelling the countries to invest heavily in TVET sector to compete in international labour markets successfully to ensure social and economic gains. The TVET sector in Pakistan is falling behind in both international and even regional levels and situation warrants for improvement in competitiveness and increase of skilled labour force both for national and international labour markets to achieve socio-economic wellbeing and having the ability to respond to any new emerging situation in TVET and skills up gradation can contribute to enhance competitiveness and productivity.

There are number aspects and directions of reforms of TVET sector including global competitiveness, yielding higher domestic industrial efficiency, enhancement of foreign remittances, ability to provide employable skills and access to new opportunities. The history and development of economies around the world have depicted rapid transformation over a period of last two decades which has changed even the fabric of TVET delivery and structures as well. The main characteristics of such transformation can be summarised as under:

- (a) Innovations of technologies
- (b) The world market based on intensive competition.
- (c) Trends set demographically

The changes which had embarked the world market required for more creative, multi skilled and adaptable. The reduction of gap between vocation education and required skills, improved co-operation between TVET stake holders including the industry duly supported by well-defined organisational hierarchy were also needs of time to meet requirements of globalisation. The globalisation has not only allowed skill requirements to grow but to change constantly, therefore warranting for a comprehensive TVET sector based on employment intensive growth strategy as a vital ingredient training system. Each country is finding ways to have a flexible TVET system in place having wide enough coverage and to raise funds to meet such delivery to address this issue.

The growth and development of world market and industrialisation with every passing year has make the policy makers and economists to believe that demands for higher level of competencies will grow many a folds, at the same time requirements for present skill levels would also grow rapidly. It has been acknowledged beyond any doubt that a talented workforce serves as a competitive edge for individuals in globalised economies and sustainability of present growth is directly dependent upon human skills and hence require all the steps for provision and acquisition of such skills through specialised institutes of good quality.

The development and performance of TVET sector in Pakistan represents a very dismal picture and a sector which has potential to overturn fortune of the country and have overturned fortunes of many countries across the globe have failed to yield the

desired results in Pakistan. The development of TVET sector in Pakistan reflects that political will and priority is direly missing in organising the sector, therefore, there is urgent need of time to reorganise the TVET sector by removing all duplications and conflicts among different authorities serving at both national and provincial levels to make it a vibrant and efficient sector of Pakistan.

4. CONCLUSION AND RECCOMENDATIONS

Considering the importance of skilled or technical work force efforts have been made from government and non-government organisations to enlarge the scope of technical and vocational training system. Pakistan is facing variety of challenges to develop required skills in labour force such as policy design or implementation, system incompetency to dress or resolve on going issues at strategic level. Pakistan has a great comparative advantage in labour costs due to large population size but that advantage is being wasted rather getting a huge liability on national economy and proving a disadvantage for the economic development of the country owing to absence of coherent and uniformity of policies, lack of will and above all conflicts and duplication in management of the sector. Technical and Vocational Education (TVE) system is not a major supplier of skills to the country's labour market due to low skill levels which dampen the potential of the labour force to significantly contribute to economic growth and the deficit permeates all sectors: industry, agriculture, services, commerce. The TVET sector of Pakistan meets a very small portion of the demand and the relative share of the applied segment of the tertiary sector is 18.5 percent, which is far less than most of the countries in the world. Many institutions and jurisdictions at both Federal and Provincial levels are involved in governance of TVET without a clear demarcation of their respective responsibilities and devoid of a focal point for coherent planning for the sector. Such has been the state of affairs of TVET in Pakistan that the most important stakeholder i.e. the industry which provides employment and is the best known to the required skills and training is not involved in any stage of the TVET delivery owing to the fragmented, duplicated and conflicted organisation of TVET sector and has even started to stay away from such input platforms where invited. The importance of developing a broad-based and high quality TVET sector has increased many a folds due to expansion of manufacturing and services sectors in the country necessitating the pre-emptive TVET sector to train as per new technologies and innovations to cater for national and international markets that allows easy flow of investment and people and provides a window for skilled labour of Pakistan to exploit the comparative advantage.

At various levels, innovations and initiatives have been introduced to reform the sector with the support of international donors, but progress has not matched the challenges due to excessive gap between training reforms and quality of labour work force being produced that must be addressed. Skills development in Pakistan is complex and multi-layered as various bodies are constituted for design and implementation of policies and no proper organisation of TVET sector in particular. In the public sector, training is funded by a number of ministries, but its aggregate scale has not been measured with respect to the outcomes. Firstly, publicly funded programmes are developed to address the training and vocational issues faced in Pakistani labour market. Under publicly funded programmes only 7.3 per cent of people aged between 15-24 who

are involved in education and training, although this statistic covering a low proportion of total adults.

Vision 2030 has echoed such change by calling for major adaptations and innovation in the education system of Pakistan.⁹ The paradigmatic shift is required to serve the interests of students and learners rather than of policy makers and implementers by making fundamental changes in all parameters of TVET policy what to offer; who to benefit; what pedagogy and teaching and learning methods to offer and sharing of resources among stakeholders.

The National Skills Strategy discussed the weaknesses of TVET and the challenges of reform. Such as the lack of labour market relevance of much of the training that is provided, with a failure to deliver the skills that the economy requires. This mismatch is due to a number of factors, including weak links between TVET institutions and employers, outdated technologies used for training, the continued provision of training in occupations that are becoming less relevant, the lack of trainee/learner exposure to the realities of working life and inadequate training in soft skills (communication, problem-solving). A number of steps are required to reform and to reorganise the TVET sector in Pakistan, Whole-of-Sector View, Policy Coherence, Fragmented Governance, Divide, Absence of Planning and Management and Stakeholder Participation in formation and management of the sector.

The situation warrants for the development of mechanism under which the whole TVET sector can be viewed and analysed for policy formulation purpose and warrants to take immediate action to Constitute a **TVET Advisory Council** under the proper legal mandate to obtain the clear picture of the sector overall and to identify all the duplications, conflicts in consultation with all stake holders particularly industry and donors. The task force be entrusted to point out all fragmented governance and to suggest ways to overcome such fragmentations.

The formation of TVET policy be based upon the recommendations of TVET Advisory Council and The Ministry of Education and Technical Training be obligated to coordinate and develop clarity with all other ministries and Departments and Statutory Bodies in formation of policy, so all duplications and conflicts do not surface even at the time of policy launch. Furthermore, it is also required to be made a guiding principle of every national and provincial policies that every point of intersection will be finalised with such intersecting ministries and no program will be implemented but through the main ministry.

The picture is too gloomy that different authorities are not willing to forego their functions after 18th Amendment to the Constitution of Islamic Republic of Pakistan under which the subject has devolved to provinces yet the federal level authorities like NTB, NISTE are performing their functions against the spirit of the mandate of the Constitution so much so that different statutory functions of NAVTTC, an independent statutory body comes in direct conflict with the mandate, yet no effort has been made to remove such conflicts and duplication.

The role of TVET Advisory Council will be very critical in resolving these conflicts, ambiguities and duplication as it will help to map and clarify through consultative process respective roles of each unit and will suggest required and necessary

⁹Vision 2013, Planning Commission of Pakistan.

amendments in existing laws as and when require. However, the post 18th Amendment scenario have made the role of Federal Government as of a facilitator and coordinator and for policy formulations where it will be ably assisted by TVET Advisory Councils of both Federal and Provincial Jurisdictions.

The TVET sector in Pakistan is also being hit in terms of unemployment of trained labour due to mismatch of training and education being imparted and needs of the market, aggravated by lack of planning, policy and conflicts embedded in management. There is also immediate need to align and blend general education with TVET to provide the students acquiring general education relevant to the needs of labour market needs and the proposed TVET Advisory Council be assigned the role to propose the road map for such courses in general education and also to suggest blending of TVET with general education. The proposal has the potential to uplift the present status of TVET in Pakistan including provision of short courses in the general education to provide a window to the world of work.

The TVET sector in Pakistan is in need of reforms both in organisation of TVET sector and organisational apparatus governing TVET. Therefore, in order to organise TVET sector as an independent stream of education having linkages with general education to provide for vertical progression to and from TVET and general education and to strengthen the delivery of TVET.

It is recommended that organisational apparatus of TVET sector shall be made to overcome the duplications, conflicts and overlapping of different TVET authorities at Federal and Provincial levels to enable the TVET organisation as mainstream of education to flourish and train the students as per national policies and objectives set forth to meet national and international labour market demands. The 18th Amendment to the Constitution of Islamic Republic of Pakistan shall be the guiding source to recommend such apparatus at both Federal and Provincial levels for respective mandate and interpretation by the Supreme Court of Pakistan.

The main curse of the present TVET sector in Pakistan is existence of organisations with duplicated, overlapping and conflicting functions of these organisations which require to be removed, if TVET sector of Pakistan has to contribute in the development of Pakistan.

NAVTTTC is required to be given status in TVET as that of HEC in general education by making it a real National Apex Body, to provide direction, support and enabling environment for the promotion of technical and vocational trainings in public and private sector; (i) by promoting relevant skills; (ii) By ensuring access, equity for all citizens of Pakistan; (iii) and by exercising quality assurance by monitoring standards in technical and vocational trainings.

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