

CHAPTER 4 A

DATA COLLECTION AND ANALYSIS

In order to evolve a Vocational Education system comparable with global standards, we carried out data collection and analysis in following major domain areas, so as to get a macro and micro view of the subject –

4.1 VOCATIONAL EDUCATION IN INDIA

Following studies were carried out for data collection and analysis-

Existing practices / policies of VE and deficiencies in the system

Stake holders analysis who are closely connected with VE practices in country, collating their views through interactive meetings with the help of structured questionnaire, to evolve pragmatic programs

Evaluation of data information system for skill matching (LMIS)

4.2 VOCATIONAL EDUCATION SYSTEM IN FOREIGN COUNTRIES

Based on discussions with experienced functionaries of chamber of commerce, 5 countries were short listed for comparative study of vocational systems, which could serve as role model to tailor a suitable system for our country, China, Japan and Korea, Germany, UK

4.3 VOCATIONAL SKILLS/EDUCATION IN POWER DISTRIBUTION SECTOR

A live study was conducted by the author to evaluate productivity and cost factors of India versus selected developed countries in manufacture of Power distribution equipment. Complete report which is revealing is annexed with the study, this shows that though we are favorable in wages but productivity and quality combined we are becoming unfavorable and loosing ground in competition to countries like China, Malaysia, Korea and Taiwan. The main reason identified is that, in our system of vocational practices there are hardly any channels of skill and proficiency improvement, as our country is moving towards higher levels of technology proficiency, skills are becoming serious bottleneck. Despite over 50 yrs. of planning at National level we as a nation have failed in meeting the market requirements

In our research we have attempted to analyze this problem and evolved a system which will suit our economic and social business environment and at the same time improve our global competitiveness

4.4 TO MEET ABOVE OBJECTIVES , DATA COLLECTION AND ANALYSIS CARRIED OUT IN FOLLOWING IMPORTANT AREAS-

- 4.4.1 Live case study of productivity and cost of power equipment industry, India V/s selected developed countries through Primary – Research.
- 4.4.2 Data and analysis of international VE practices in Industrialized countries like China, Japan, Germany, UK (Primary Secondary Research)
- 4.4.3 Analysis of existing VET policy in the country and assessment of major deficiencies of policy, its operational aspects (Secondary Research)
- 4.4.4 Through structured interviews , collected data of stake holders of VET system in country-e.g., industry ,educationist, institutes, associations, Government bodies, rural schemes, power utilities (Primary- Data)
- 4.4.5 In order to study the VE capacity in the country, Existing and projected gap in demand and supply analyzed - Secondary Research
Analysis VE Capacity assessment by end of 12th plan based on secondary data/reports of 11th/12th, 5yr Plans and 17 different ministries which administer skill development programs- Secondary Research
- 4.4.6 Vocational Education/Skills in Power Sector Analysis of Power Distribution system in Northern India in respect of operating practices through Case study of Power Distribution utility-.Primary Research
- 4.4.1 **Analysis through case study - productivity and cost in India vs developed countries through live case study (primary - research)**

The Study was conducted by author during visit to these countries on a study trip of power distribution equipment in India v/s Korea Japan Germany, USA- Comparison clearly show that our low labor cost, gets offset by low productivity- with labor cost rising Engineering Industry is becoming uncompetitive in global business-Through skill building programs, we need to improve our productivity and remove this imbalance.

Table 4. 8 -Comparison of cost, Productivity India V/S Developed Countries

	India	Korea	Japan	Germany	USA
Weekly hrs	48	54	40	36	40
Wages- min	1	3	4	6	5
Productivity ratio	1	6	5	4	3
Wage ratio – low / high	1:03	1:03	1:03	1:04	1:04
wages skilled worker ratio	1	5	6	8	6

Critical skill gaps emerging from study

Most of MNCs in India especially Japanese co.’s train workers till they attain desired productivity/quality skills, before putting them on production lines. With skill upgradation programs, continuous learning and growth they have achieved output better than their parent plants, the lesson which we need to learn from them and put in practice.

If Japanese can do it in India, why can’t other Indian companies do it in the same manner?(Labor Cost Analysis - India versus developed countries- Korea, Japan, Germany, USA , 2005)

Manpower productivity/ quality in global competition is our weakest link.

We are favorable in wages but productivity combined we are unfavorable and losing ground to countries like China, Malaysia, Korea, Taiwan, Indonesia etc. There are hardly any channels of skill improvement, higher growth through proficiency and lack of incentives for improvements/ innovations.

Many study reports by Government. / Planning Commission/world bodies have recommended rationalization of skill development policies in line with international practices, to become globally competitive. Despite several reports in last 50 years by highly placed committees, ground reality are quite poor.

4.4.2 Vocational Education system in selected foreign countries

Analysis of International Practices in Vocational Education in Industrialized countries like China, Japan, Germany, UK

(Primary/Secondary – Research) Outcome of this research will help to draw lessons from developed countries for building a sound framework of policies for skill development

Vocational Education in China

China is perhaps the best comparison as it matches well with size, complexities, demographic profile and economic environment of India VET is recognized as one of the most important resource for achieving social and economic growth. Policy formation is centrally planned and managed by ministry of Education, human resource/services (comparative Review on China - Vocational Education & Training System, 2011)

Vocational education is provided at 3 levels –

Junior secondary, senior secondary, Tertiary level

Junior Secondary – upto 15 years of age refers to vocational and technical education after primary school and is part of 9 years compulsory education. Training lasts for 2-3 years and aims at attaining workers, peasants with practical skills. Schools are mainly located in rural areas, to meet needs of lesser developed economy.

Senior vocational schools -upto age of 18 years. Training for 3 years covers as many as 4000 trades. These are the mainstay of vocational training in China and consist of imparting practical skills along with basic theoretical knowledge. There are about 25,000 schools with enrolment of over 20 million. During last 2 decades enrolment in these schools has increased to about 50%of total enrolment.

Tertiary Schools provide higher and specialized training upto the age of 21years education is equivalent to post graduate program of any other professional field like arts, science, medical, engineering and carries a social/ monetary tag comparable with these careers.

Highlight of Vocational Education in China.

Rapid expansion of Vocational Education., in 2 decades expanded by 50 times to create 20 million capacity per annum of junior, senior and tertiary level of skills. Nearly 50% of all schools converted into vocational schools with enrolment upto 50%, thus a well-planned infrastructure is created to meet requirement for rural economy. More than 4000 trades/skills offered to meet needs of business.

Special emphasis on quality, standardization and certification of courses through regional and central level vocational councils

Special provisions for on job, apprenticeship are essential part of VE.

Forum constituted to carry out research to incorporate successful practices of other countries, like dual track system of Germany, ability index of Australia and NVQF of UK-concept used for an efficient training system by continuous updating and upgradation of Vocational system in the country.

Vocational Education in Japan and Korea

Economies of Japan and Korea are often termed as economic miracles and Asian Tigers, due to rapid economic growth during post war period, 1950 to 90 today Japan is world's second largest economy, South Korea is 13th.

At the foundation of this growth is high productivity, quality and cost economy achieved through high level of skill development of vocational training, enrolment in Korea and Japan are highest in the world – 80% to 96%.

Vocational Education is imparted at 3 levels namely basic apprentice ship training at junior level, and middle level covering large no of skills, 4000 to 5000 numbers in areas of manufacturing, services like health care, IT, Hospitality, Tourism, Trading and marketing etc. and agro based industry and higher level in universities and colleges.

In both these countries apprentice ship training forms the core of skill development , employers take full moral responsibilities for imparting excellent technical skills through recruiting workers for life and giving them extensive training with full social stability.

This model of sincerity, commitment, national Pride, is the major factor of competitive edge of these economies compared to western counter-parts.

Higher VE in University and Colleges, in recent years, vocational programs have been introduced at Post secondary levels.(Vocational Education in contemporary Japan & Korea , 2011)

Highlight of VE in Japan and Korea

Social and emotional stability through lifelong employment, high degree of commitment /national pride, results into high productivity and quality privately managed training responds to market forces much faster key to success-regional councils monitor program contents quality. (Vocational Education in contemporary Japan & Korea , 2011)

Vocational Education in Germany

German Vocational Education system is considered to be the best globally and based on Dual System of Vocational Education in school, combined with on the job training in industry. Training is planned on sectoral level, is conducted on regional/national basis and has 3 levels of specialization, basic level of 2-3 year of training, middle level 3-4 years, advanced level 4-5 years.(Vocational Education & Training , 2000)

Unlike India where Vocational Education is treated as inferior and meant for those who cannot progress in academic education, in Germany Vocational Education is held in high esteem decently remunerated and nearly 60% of students opt as a career. System is based on sound coordination between government through federal institute of Vocational Education, employers association and trade union. German system lays stress on certification of trainers.

Programs monitored with care resulting in very positive outcomes – this is the main strength of German system which nobody else in world has been able to replicate except Japan and Korea who do it through lifelong employment.

Regional evaluation committees with representatives of all 3 stake holders conduct test/ award certification which has lot of weight for employment. One million annually go through this certification for skill specialization.

Highlights of VE in Germany

Considered to be the best system in the world. The perfectionist approach and commitment of all players – Govt., Industry, Trade Unions with high social esteem and Career Growth accorded to VE has made Germany as foremost in quality parameter in industrial world globally

Vocational Education in UK

UK has a comprehensive VE system amongst European countries probably next best to German system. Last two decades, they have modernized VE to remain competitive in global market.(Vocational Education & Training in UK, 2005)(Review of V E in UK by Prof A Wolf, April , 2013)

Schooling is compulsory upto 16 years of age. National curriculum includes core subjects of English Math science ICT. Exam leads to certification of GCSE after GCSE they can choose academic or vocational subjects or a combination of both the streams to make it more flexible.

Figure 4.7 Overview of national qualifications framework in Great Britain

Qualification Level	Higher Level Qualification		Vocational Qualification
5	Higher Level Qualification		Level 5 NVQ
4	A-Level	Vocational A-Level	Level 4 NVQ
3	GCSE Grade A-C	Vocational GCSE's	Level 3 NVQ
2	GCSE Grade D-G	Foundation - GNVQ	Level 2 NVQ
1	Certificate of educational achievement		Level 1 NVQ

GCSE onwards, five level of occupational Level 1-5 created to meet all possible need of emerging global competition Vocational pathways for full /part time school/college education –

Vocational certificate of education (VCE) a level qualification known as GCE available in 10 applied Subjects covering wide areas in services National Vocational Qualification (NVQ)

Mainly offered level 1, 2, 3 based on work based competencies.

BTEC-Business, technical education council, offer theoretical and practical work qualification at levels 1, 2and 3 with more experience it lead to higher national certificate (HNC) higher national diploma (HND).

City and Guilds (CG) General vocational qualification (GVQ), International vocational qualification (IVQ) these cover more than 500 qualifications through 8500 center worldwide, used by working people

Apprenticeship- provides work based training for acquiring qualifications like NVQ. Nearly 2lac join programs yearly for duration 1 to 3 yrs at level 2 to 3 Sector Skill Council (SSC) provides frame work for qualification.

Continuing Education/Training for Adults It refers to Learners above 19 year and comprises full time, part time work related education/ training.

Highlights of Vocational Education Programs in UK

Comprehensive/well regulated covers skills lower to top level, heavily bureaucratic takes time to respond to market, lacks flexibility VE education is considered low in social esteem compared to academics, therefore it does not attract good caliber persons due to low commitment and apprenticeship scheme does not produce high caliber outcomes like in Germany and Japan

ANALYSIS AND HIGHLIGHTS OF VOCATIONAL EDUCATION IN DEVELOPED COUNTRIES

After extensive study of available literature through secondary research which was supplemented with live observation during study trips and through primary research to countries like China, Japan, Korea, Germany UK vocational educational system was studied and following important points emerged as basis for our research work.

Vocational education level ranges between 60-90% - e.g. Japan, Germany, Korea, UK / USA, Australia, structured into levels, based on philosophy of acquiring proficiency of skills through Policy of learn, earn and grow, job opportunity earning potential better than ordinary academic streams, making it attractive for students to voluntarily opt for it. Carries equivalent social prestige tag in comparison to academics- to the extent that a highly skilled die maker earns as much as factory manager, has similar lifestyle.

It is fully integrated with practical training and is a combination of vocational career plus academics, on the job training and apprenticeship there is ample scope for

horizontal and vertical mobility both through formal and informal streams to acquire certifications. The system values skills/proficiencies and not merely degrees as in our system.

There is a standardized frame work of vocational qualifications at national level to regulate uniformity in skill assessment / gradation / qualification, spread over, different levels, affording promising growth opportunities equal or even better than the comparable academic streams

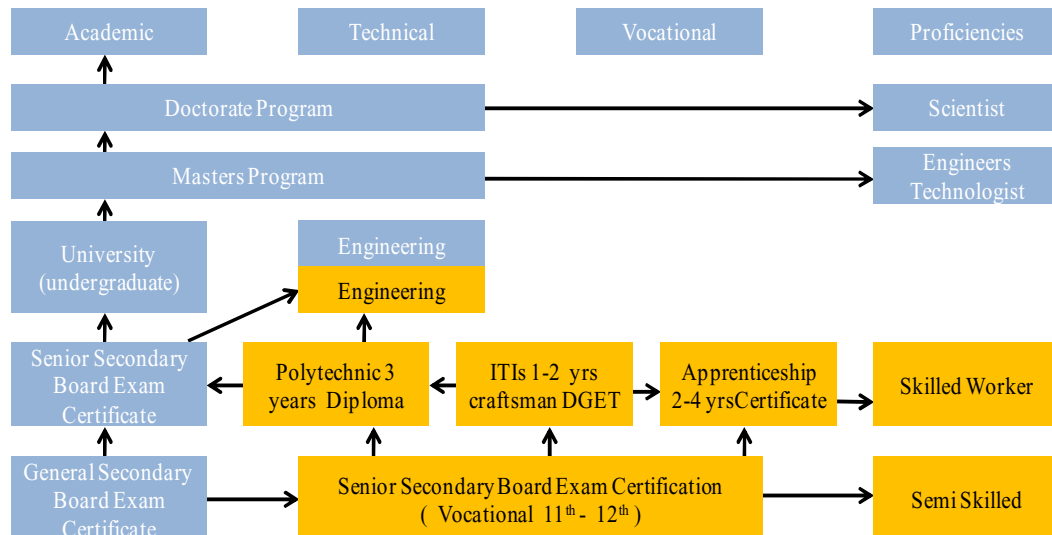
Close involvement of business/industry/Govt. in Vocational Education Training.

Summing up

We used these practices to design a vocational framework tailored to our environment through primary and secondary research the subject of skill development has been critically appraised and deficiencies in economy identified and Frame work has been worked

4.4.3 Analysis of existing VE policy and Assessment of Major Deficiencies

Figure4.4.8Existing structure of Academic /Technical/Vocational Education



Currently, Vocational Education is imparted through two structural streams

Formal one-small in size, about 20% of workforce

Informal one large in size about 80% of work force

Table 4.9- Formal Capacity of Vocational Education in the Country

(Formal Capacity of Vocational Education in the Country , 2012)⁴⁴

Type of source	Institute	Capacity	Quantity
Mainstream education system under HRD Ministry	Vocational education in secondary schools	Enroll less than 3 % in higher secondary no# 4 Lacs PA	9583 schools offering 150 vocational courses of 2 yrs
Diploma courses under HRD Ministry	Polytechnics	Capacity 3lacs	1244 polytechnics
Training institutes under employment & labor	ITI's / ITC's	9.54 lacs students PA	ITI (public) 1997
			ITC (private) 4906
			Total 6906
Apprenticeship training under	Industrial units	2.5 lacs	23000 industrial units
NIOS & other Govt scheme	Open training program	11 lacs	
Total		3.1 million	

Limitation of formal vocation educational system school enrollment in vocational programs as against 3 to 5 % enrolment in vocational schools in India the corresponding figures for China is 55%, Japan 50%, Germany 60% and UK 50%.The implementation is poor resulting in poor employability or scope for further career growth through skill building.

Private organization and industry participation is minimal-there are no incentives for private players to participate in vocational education

Exception is service industry especially IT services which has created a world class training infrastructure resulting in India becoming a world leader. Possibly, we should transfer this concept in other areas with active participation of private sector. Vocational Education is treated socially inferior in our country without much scope for vertical mobility Indian system does not give flexibility for ITI / ITC students to improve their skills by vertical mobility into higher courses, because of the dead end philosophy only students at the low end of the academic performance opt for vocational courses which are treated socially inferior, without much opportunity for upgradation and career growth.

Labor participation rate is declining due to lack of mobility and career growth more students are going for higher secondary education

Informal sector which employs nearly 90% of work force has no clear policy of formal vocational education training. JSS offers 255 types of vocational courses to

1.0 million persons. Community Polytechnics train 0.5 million and NIOS offers 85 numbers through 700 service providers, mostly of poor quality with low employability.

There is very high dropout rate in India, out of 250 million children who go to school only -40% reach higher secondary and 11% reach university

Vocational skills in India do not give strong academic base international experience shows that employers prefer young workers with strong basic of academic skills along with vocational skills, most of the vocational skills in India do not include soft skills which is a serious handicap.

Poor quality teachers and teaching- Generally poor caliber persons who do not get better openings opt for this career, resulting in poor training/modules.

Limitation of Informal system is our weakest link

Sector constituting nearly 90% of the work force is not supported by system for upgradation of skills. Skill formation takes place through family occupation, with no formal training/certification Efforts for imparting training to this category through Swaran Jayanti Gram Swarn Yojna (SGSY), PM Rojgar Yojna (PMRY), Krishi Vigyan Kendra (KVK) and Jan Shiksha Sansthan JSS), are in place, but outcome is not satisfactory in terms of quality/employability.

Primary Survey of Major Policy limitation of existing system

Vocational Programs are monitored by 17 Central Ministries and 35 State Govt.'s which work in Silos and lack coordination and integration-Much of Implementation is a state subject without any standardized curriculum and assessment system, therefore lacks quality and market orientation-

Government .policy talks of private participation on paper but ground realities are not promising, involvement needs to be improved through fiscal incentives.

Unorganized sector which employs nearly 90% of work force- in segments like agro, construction, small/ medium industry has not received due attention, which is a drag on our economy , and implementation needs revamp.

Vocational education policy at secondary school level with proper quality standards and channel of growth still remains a dream.

There is Policy limitation and lack of vertical/horizontal mobility, through credit point accumulation to brings at par with growth path in academics streams and career.

4.4.4 Analysis and survey of stake holders of Vocational Education system in country-

Stake holder's are- Industry, educationist, training institutes, trade association's employees, rural schemes, power distribution utilities etc.

Field survey was conducted of stake holders through structured interviews to assess ground realities to identify research gaps for developing a program of National Vocational Qualification Frame work (NVQF).

Primary Research was conducted based on discussions with senior functionaries of National Skill Development Corporation, National Industrial Associations like FICCI and CII to understand the ground realities in country.

Following stakeholders were shortlisted on the basis of sampling plan annexed with the study, for analysis through structured interviews-

Large Scale Industry- Maruti Udyog Ltd. Largest Auto Co in the country to understand Japanese Vocational Education practices and its successful implementation in Indian environment.

Medium Scale Industry –Sandhar Technology Ltd, a reputed auto component manufacturer. Which has seven Engineering Units in Gurgaon, total turnover 1000 crores per annum, employees 2500 in number.

Small Scale Industry -Two units were studied- one in Electrical, other in Mechanical Field workmen strength of the units 50-60 numbers, turnover 2-3 crores per annum. These were owner run and managed without any professional managers.

Gurgaon Industrial Association (GIA)-Leading association with over 500 members consisting of large, medium and small industries.

Jt. Director Industries Gurgaon– Govt. of Haryana functionary coordinates nearly 2500 small, medium and micro units in Gurgaon District.

Principal ITI Gurgaon – Government training institute separate for boys and girls imparts skill training to 1250 students in 23 trades, courses ranging from six months to two years duration.

Auto skill Development Council (ASDC) –This is a council setup by collective membership of Auto Industrial Association. It is one of the 20 high growth segments, identified by National Skill Development Corporation (NSDC). It imparts Skill training for Auto industry in 25/30 skills through seed capital contributed by NSDC.

Appraisal of Rural Vocational Schemes- To study these schemes we covered six villages of Gurgaon, Faridabad District of Government sponsored programs of 3/12 months duration like PMRY, KVK, and JSS etc.

Appraisal of NSDC programs-This is a premier institution, a autonomous body setup by Government of India to promote skill Development in industrial Sectors through PPP model.

Appraisal of Vocational programs during last 4years by various Government Departments.

Appraisal of Sector Skill Councils programs- Which are Joint Ventures (JV's) setup by NSDC to promote skill development activities in industrial Sectors through PPP model.

Analysis and Survey of Power Distribution Systems in India.

This was conducted in respect of following three important parameters namely Evaluation of two business models used in country – public and private utilities.

Assessment of skill requirements in a distribution system.

Status of skill development and training in the two business models mentioned under above point.

A separate study and analysis has been conducted on POWER distribution sector and placed in this report

Data collected of Stake holders through structured interviews Industry information was collected from following sources-

Sandhar Technologies Ltd Gurgaon

Engineering industry with seven manufacturing units in Gurgaon-manufacturing Auto components Approx turnover 1000 crores

Employee strength 2500. Pemanent workers 20%, balance 80% on contract basis professionally managed.

Persons interviewed – Chairman of Co, Sr. V P HR, Divisional Heads

Important information collected is as under

Co was not happy with quality/caliber of ITI students they hardly engage 4-5 % ITI trained work force, they follow the Japanese practice and do in-house training by hiring fresh, higher Secondary pass out's and put them on job after 3-6 months of training.

Co has continuous skill upgradation programs through 8 to 10 hours per week on the job training after working hours. They also encourage workers to improve academic qualifications through part time studies by subsidizing the expenses. Ratio of Skilled workman 30%, Semi-Skilled 50%, unskilled 20%.

75% of senior positions upto senior supervisor, in the organization are filled through internal promotions of workmen. The company's productivity is 90% of international standards, which is quite promising, company achieved on an average 10% increase of productivity per year through suggestion schemes, mostly contributed by workers/ staff .Majority of staff promoted from workmen which is a great motivation.

Skills in short supply- welders, painters, electricians.

The management of the company is of considered view that Vocational Education and training system in the country was totally outdated, they were of the opinion that same should be managed by giving more incentives to in-house training by the companies. ITI and other institutes should be managed through industrial associations to improve practical orientation.

Japanese method of vocational Training was considered to be the best.

Interaction with Gurgaon Industrial Association (GIA) –

A leading association with membership of about 500 industries some of them very large in size like Hero Group, Automax, Sona Steering, Rico Auto, Bajaj Motors, Cosco India, and Munjal Showa. It has a decent office in Industrial area and the association actively looks after the interest of the industries by coordinating with State Government and relevant ministries of central government. Persons met were General Secretary, Joint Secretary and office manager,

Gist of discussions-None of the office bearers were aware of any vocational training schemes sponsored by any department of state, central, NSDC with any prominent industry member of industrial association

There are 2 ITI's at Gurgaon separate for boy's and girl's, the office bearers were not aware of any joint activities between the ITI and industry They were not happy

with the quality of ITI students however students get absorbed due to shortage of trained manpower.

The requirement of skilled manpower is mostly met by larger industries through in-house training and by small and medium industry by training unskilled workers in traditional manner by attaching them with skilled worker. There was dire need of skilled workmen in the industry.

Summing up

The officials said there was an urgent need of private institutions setting up training institutes or even industrial associations could help in conducting sponsored programs with the help of member industries.

Interaction with General Manager Industries, Gurgaon-

It was surprising to note that in prominent industrial belt like Gurgaon, GM industries who has big establishment maintains only routine statistical records of registration of industries, type of work handled and Revenue records. They are not involved with important activities like vocational training, type of skills required, and working of the local ITI's.

This clearly indicates that bureaucracy at state level is quite indifferent to skill development activity even at an important location like Gurgaon which generates nearly 60% of states revenue.

Interaction with Principal of ITI Gurgaon

There are two institutions - for boys and girls' persons met were principal of ITI, teachers, student's Capacity 1250 for boys and girls. It is a impressive complex with lot of infrastructure, not fully utilized, trade offered 23 courses, which cover areas of electrical, mechanical, electronics and computer operation and Centre of excellence for auto industry.

Admissions are carried out on the basis of 10 and 10 plus 2, the courses range from 6 months to 2 years and entitles them for certificates. Only nominal fees are charged. All expenses are born by State Government.

There is a managing committee headed by Div. Commissioner, members from large industries like Maruti, Hero Group, Munjal Showa. Frequencies of meetings are not fixed, normally once in 3 months, but not regular.

Regarding placements 75% to 80% get placement either as trainees or direct employment in the industry, balance take up self-employment in native villages spoke to some students as well as teachers at random-outcome was poor communication, low motivation and enthusiasm noticed.

Summing up

Impressive infrastructure, dynamic location, not optimally utilized. There is enough space to expand it by almost 3 times. The Institutes is run purely as a Government Department in inefficient manner without much zeal to bring it to modern standards to meet the changing Industry requirement. Courses for a place like Gurgaon should be 10 times more

Industry participation is poor. Management committee working headed by a senior Government functionary lacks business and professional approach. It needs a total rethinking to keep pace with business needs.

Industry feedback on quality of curriculum/ skill level of students not satisfactory. Financial model of virtually free education, poor curriculum. Poor teaching and poor skill levels needs total professional remodeling.

Interaction with CEO-Automotive Skill Development Council-ASDC

The council has been promoted by 3 associations of automobile industry-first sector skill council in India registered in March 2011, startup funding done by NSDC

The role of council is to identify skill gaps for auto sector, develop curriculum arrange training programs, through certified trainers by ASDC, training delivery done by the training partners from the industry.

The council has identified 25-30 trades/skills for training and arranged programs for about 1000 technicians in 3 trades during last two years, Funding of programs under self-financing schemes which comes to about Rs 15000/-per head for a two weeks program .After training, successful trainees are awarded certificates. There are nearly 2 million skilled workmen in industry, assuming 50% need training/upgradation of skills, especially in small, medium service sector. This task requires lot of resources especially trainers, funds, scaling up

Outcomes -This is perhaps the best mode to impart world class practical training which is being organized by creating a Pool of 50 to 100 first ranking manufacturers and OEMs like Mahindra, TVS, Bosh, Toyota, and Maruti willing to extend help and impart hands on training. Entire program needs to be scaled up by involvement of more and more industry

Interaction with –Sr. Manager Training –Maruti Udyog Ltd –Gurgaon

Maruti Udyog Ltd is the biggest car manufacturing co in the country and qualifies as one of the ideal choice for understanding the best practices of skill development in industry especially the Japanese culture

As per the study, Maruti Udyog has two plants at Gurgaon and Manesar employing 3000/1400 persons on rolls respectively called associates and almost equal number of contract workers in the plants,

Permanent workmen known as associates are distributed in 8 skills ranging from Level 3 to 10, gross wages ranging from Rs 18000 to Rs 40000 per month and contractor labor, average wage of Rs10000.per month.

There is well-defined induction, training policy typical of Japanese culture minimum qualification at entry level is ITI, candidates are screened for behavioral/attitude, in addition to trade test for entry, followed by regular training, done in 4 steps

Soft skills covering attitude, team work/ group performance, Communication skills

Functional training special emphasis on Quality aspect,

Followed by on job training under supervision

Finally independent working

Japanese system is stickler for quality and productivity. Every worker each year is exposed to 40 to 50 hours of training in multi skills and reinforcement of attitude towards work and team mates.

It is through building a positive work culture that Japanese are able to achieve the optimum productivity and quality. It is here perhaps they excel all other nations in work culture.

System permits workers to move up through experience, knowledge imparted through training. Workers have moved to supervisory position through this route.

Outcome-Japanese method of in-plant training/ skill building is most effective as it includes behavioral aspects which promote teamwork loyalty towards work etc. and is missing in our Indian work culture. Besides ongoing training leads to career growth and maintains high motivational level.

This model is perhaps the best method of developing workers proficiency and attaining high standards for productivity and we need to adopt them in our training programs / skill building activities as a regular policy.

Interaction with Small Scale Industry

We reviewed two units namely –

Golden Electric Co.-Total 60 workers, 50 skilled and 10 unskilled, turnover Rs300 lacs per year. Manufacture electric bulbs

Manan Engineering (Gurgaon) -50 workers, 45 skilled, 5 unskilled. Turnover Rs 2 crores per year. Manufacture auto components

Records/returns filed only for regular workers, covered under ESI, PF. rest paid through labor contractor without any statutory benefits/social security .Job wise production/output norms are fixed, workers comply with it

Management of the factory- Two foremen look after entire work, including quality aspects and maintenance. Owner with help of accounting supervisor looks after accounts, administration and material flow. Foreman experienced but not qualified. Most of skilled workers are unqualified (80%), learnt through traditional way hence not strong on quality. Average experience 5-10 years has not undergone any formal training in career. Workers learn the trade by hit and Trial method without any consideration for quality and improvements

This is a major reason that in engineering industry we as a nation have not been able to make headway in export market like China, Korea and Japan who have attained the position of global leaders in electronics, electrical and automobile market during the last two decades by upgrading the skills of small and medium enterprises which help the large industry to do assembly and produce the final product.

We need to replicate this model in our Country which currently only the Japanese companies are doing in India

Outcomes -It is typical sample of working of small scale/mini/micro/agro sector, has virtually no opportunity of any formal training/skill upgradation

Interaction with Vice President-National Skill Development Corporation (NSDC)

The corporation has Rs. 2500crore equity base. Target is to skill 150 million workman by year 2022 at the rate of 15million per year, through PPP model by collaborating with multiple sources. Important ones are-

It has identified 20 growth sectors which are listed in the research report and trying to establish Sector Skill Councils (SSC's) with industrial associations to identify Skill gaps, setup training partners from industry.

By now, 11SSCs are set up, 4have become operational. The council is tying up with large companies like L&T, Mahindra, Maruti to train1000 persons/month in construction, retail, supply chain, merchandizing, driving etc. for training nearly 50 organisations have been approved, and they have trained 1.8 lac persons so far. A large MNC, Grass Hospitality have been granted seed capital of 62 crore loan to skill 1.3 million in 10 years in areas of Hospitality, Tourism, IT, Banking and Insurance.

Foreign tie ups are being expanded with countries like UK, Australia, Germany, in various soft and hard skills especially for export markets.

Overall NSDC has achieved 20%and40%of target during last two years and is steadily moving forward.

Outcome-NSDC is doing commendable work by getting private sector through industries, business houses to participate in skill building activity. Though progress is slow but the direction is right and we need to watch out on quality/employability aspect. We need to intensify these initiatives to promote these activities

4.4.5 Appraisal of Performance Data of Major Government Deptts. / NSDC

We made appraisal of National Skill Development Plans of skilling 500millioworkforces by year2022 i.e. next 10 years. Data indicates that during 2011-12, capacity creation is less than 40% of target, in 2010-11, less than 20%, Capacity

creation is under bureaucratic control at center and state level. Performance is poor, system needs total restructuring to speed up through private participation.

Survey of Rural schemes and Govt. projects. Village Training Schemes -

In order to study the ground realities of the scheme we visited 5 villages in Gurgaon and Faridabad District – namely Dhankot, Sultanpur, Dhumuspur, Sohna, Ballabgarh to assess Skill Building Programs sponsored by Government There were 3ITIs in the area running 8-10 traditional trades of three months to 2 year duration, looked at the facilities, spoke to some teachers and students, overall level was quite poor. It seemed that large percentages of trainees were pursuing the course because of free training and stipend available under low income schemes. Courses were popular due to good employment potential in factories.

Discussions with village Sarpanchs did not bring out, significant Skill development programs for marginal farmers, except for useful Agro information on TV channels. However they seek help from block officials to get soft loans from Banks, govt. subsidies on fertilizer, power and Farm Equipment's etc. unemployed were getting limited employment on Government Projects like Roads, Irrigation systems, etc under various Rozgar schemes through local politicians but lot of corruption was reported, in dispensing these schemes without much social gains to society.

Summation of Rural Schemes

It is sad that enormous money spent through Government machinery is not adding much value to lower strata of rural population .Our agriculture growth has declined in last few years and is 1/3 of China, ½ of global average, sad part is that major part of resources are wasted in corruption and establishment costs.

During year 2012-13, nearly Rs 2lac crores is budgeted for subsidies, 40 crore people live below 2 dollars a day income, the World Bank poverty benchmark. It is high time we declare agriculture as industry, allow private businesses to build rural economy on the same pattern as Amul in Gujarat state which has achieved remarkable success by active participation of farmers through cooperatives, enhancing their skills and sharing benefits-a win-win business model. If by prudent Planning we raise our growth to 4% pa which quite a few states have achieved and

are quite modest we can lift more than 50% of rural population out of the poverty levels and add 30 billion as revenue to our national income.

4.4.6 Vocational Education in Power Sector- through two Case Studies

In order to develop a pragmatic model of vocational needs for the sector two live case studies were carried out with the stake holders. Outcomes are summarized as under

Performance data of Power Sector-skill requirements and gaps

Comparison of Distribution Business models in the Country.

Field Study to assess different type of skills of distribution utility.

Case studies was undertaken of BSES Rajdhani Ltd. and Dhakshin Haryana Vidyut Nigam, so as to compare relative performance of a public run utility and a Govt. run utility - the difference in performance were very noticeable the public utility was far better in performance compared to the Govt. utility.

Important Parameters Covered in the research study are-

Performance Data of Power Sector

Estimated manpower employment in Power Sector currently is 5.5 million in three segments of Power Generation, Transmission and Distribution. Out of this nearly 2/3 is employed in Power Distribution sector which is most manpower intensive and is subject matter of our study .The number comes to nearly 3.3 million at National Level

Coming to Skill Building and Skill gaps

-Our two research studies cited above-one comparing customer Relations Practices between Pvt. co handling Distribution in Delhi V/S Haryana undertaking and other on Skill Requirements/Performance parameters of Private co at Delhi, have critically appraised the business models currently being used in the country in Power Distribution and in the second study assessment of skills and gaps have been made. Detailed analysis is annexed in the report.

The industry is growing around 6% pa, however manpower additions, is around 2%, including retirements/attritions as till recent years the utilities were being run as

Government Departments /PSUs,- were most mismanaged inefficient, overstaffed, poor skills and overall had low productivity.

As a result of poor man management, resulting in alarmingly high distribution losses continue to be a serious malady which adversely impacts financial health of Energy Sector. It is partly due to out dated equipment but mainly due to lack of skills /professional ethics resulting in poor operations rampant corruption and overall bad management of entire supply chain of the system.

Distribution system- Loss Figures are high over 40% till 80s,improved to 26% by 2012 through fiscal incentives schemes, converting the distribution system into Autonomous bodies/ JVs with Private sectors like in Bombay, Delhi and Calcutta, shown marked improvements of bringing losses to less than 10% in Bombay ,16% in Delhi close to Global average of 8%. Chinas figure is amazing 5.5%.

It is interesting to know financial aspect-cumulative losses work out to nearly 1 lac crores which equals 20,000MW Generating Capacity and again equals current demand-supply deficit nationally. Achieving 10% target means free addition of 3000 MW capacity

Skill Requirements and Gaps

Detail research study was conducted in BSES in respect of skill requirements in day to day operation of distribution network with the help of their operating staff in south Delhi district the study is annexed with report in a tabular form.

There are 20 odd skills needed in Distribution operations, 75% of these skills like linemen, wireman, electricians, fitters, mechanics, Drivers are drawn from general pool mostly trained traditionally from unskilled/helper channel from within 20% from ITI/ polytechnics and get trained on the jobs, balance 5% come from specialized field of electronic /automation/computerization major gap in demand and supply is quality of skills and Professional management, needs to be bridged through high level induction programs /backed by ongoing Development Programs covering-poor skills, lack of teamwork, motivation, performance oriented work culture - lack of technical, behavioral skills .

Restructuring of distribution utilities as professional bodies/

As JV's with reputed business houses as PPP models, so as to draw best strength of private sectors and infrastructure of Government like in Delhi, Bombay and Calcutta. Same model to be replicated to bring turnaround in other utilities.

Utilities to set up a strong training and development function as integral part of system to impart technical as well as Behavioral skills to promote excellence through work culture. Compensation/incentives schemes should be linked with team/group performance.

Appraisal of Power Sector ((Integrated Energy Policy, 2020, GOI))

70% of commercial energy is consumed by power sector which has a direct bearing on economic growth, it is necessary to focus on power sector which has not performed well in last 50 years especially Distribution segment It is important to evaluate this sector as per international standards and draw action plan to achieve targeted growth.

Important observations about performance of the sector are-

In terms of supply, we are deficit by 10%, however, this figure is as high as 25% in some states, which is quite alarming. Industry spends twice the cost in meeting shortages besides unproductive investment in standby systems

Quality of power supply is poor in terms of voltage and frequency, which indirectly impacts life of equipment at users end, and inflates cost, Energy demand over last 25 years has grown at CARG of 6% whereas supply net of heavy Distribution losses is less thus widening the gap.

India has one of lowest per capita consumption in world- ranks 5th in world in generating capacity, has one of lowest per capita consumption of 750kwhr, which is 1/3 of world's average, 5% of US and 30% of China. Power consumption is indicator of economic prosperity it explains why 30% of population is below poverty line, 30 crores without electric connection.

Power Distribution losses a serious malady which adversely affects financial health of power sector. It is partly due to outdated equipment but mainly due to poor up keep, corrupt practices and bad management of entire supply chain-figure was alarmingly high around 40% in 80's improved to 26% now in 2012.Target is to bring it down to below 15% by 2015.

Target of 15% to be achieved by year 2015, does not look feasible. As system of planning and governance, adopted by country over last four decades have been so ineffective that as a nation we have failed to achieve a acceptable standard. Through Primary research with stake holders we have addressed this complex problem to

evolve plausible Solutions. Here skills/ quality of man power has important role to play compared to international standards our system from generation to distribution is inefficient by 40/45% studies show 60% is due to lack of Skills and balance technology and processes

Comparison of Distribution Business models in the Country- Case study

Public vs Private joint sector -That power distribution in the country is handled primarily by State Govt. run utilities and in some states like Delhi, BSES with Reliance in South, East Delhi and NDPL in North, East Delhi through -PPP model.

(Govt.'s APDRP Reform Policy)

Through this study we shall evaluate these business models Government Policy to Control Distribution Losses (Govt.'s APDRP Reform Policy) to improve distribution efficiency through- accelerated power development reform program (APDRP) to reduce aggregate technical and commercial (AT&C) losses to 10%.

Upgrade distribution system, to improve quality/reliability, finally service level to the consumer, the ultimate goal also improve over all finances of SEB's, reeling under heavy losses

Scheme has two components–

Investment assistance, incentives Investment Assistance – 50% of project cost, 25% as grant, 25% as soft loan. Special backward states get 90% grant, 10% loan assistance incentives for reduction of losses – 50% value of distribution loss reduction is given as grant. Losses have come down from over 50% to 28% in last 20yrs. Progress is unsatisfactory as the governance of utilities has been under bureaucratic control without much emphasis on improving work culture and operating efficiency This is reflected in following case study.

Public utilities versus Private joint venture

As case study, performance of BSES, Rajdhani Power Ltd, Delhi was studied (Performance Report BSES Rajdhani, 2013)

Joint Venture with govt. since 2003 was studied which shows marked improvement of distribution losses through change of governance system in the two systems which came down from 52 to 18%, average of 5% PA as against national average of 1%, improvement.

Survey was conducted by meeting top officials of

BSES Rajdhani Delhi– VP, GM (O and M), GM (commercial)
DHBVNL, Haryana (Hissar division) Chief Engineer, Executive engineer
(Performance Data of DHBVNL, year 2010-11-12)

Following marked Functional differences were observed in the two systems-

Organizational Restructuring BSES switched to functional organization-
consisting of department's like

Business Relations,

O and M,

HR- training and Development,

Finance Audit

Customer care,

Projects/Technical upgradation

Regular orientation programs at senior and skill upgradation at operational levels

DHBVNL- traditional organization of technical, accounts, administration (no focus
on HR and customer care). Occasional orientation at senior level and negligible at
junior level

Processes Re-engineering –BSES has totally modernized the procedures and
processes by switching over to - automatic meter reading, optical downloading of
meter data, e billing, e payments, supply mapping and audit to Detect losses, ERP
and data management system etc. these improvements have considerably cut down
operational costs and improved the customer service

DHBVNL have done only partial automation for large consumers.

Technology upgradation BSES have upgraded systems of distribution by
improving sub stations, reliability index 90% DHBVNL no record available, as per
consumers The Reliability Improved level has improved over the same period by
about 50%.

Improvements in service level continue to be poor due to lack of transparency in
working and indifferent attitude.

Focus on Customer care-BSES- carried out a total face lift of offices, introduced
24x7 customer service, positioned customer relation officer in every district, public
participation through periodic meetings with RWA's and area representatives

introduced formal complaint redressal system thereby a total change in work culture of the organization.

DHBVNL has only complaint center, no specific platform for customer interaction. Customer care/ communication lacking.

Research Study to assess different type of Skills in a Distribution Utility Sample Study conducted in respect of BSES Delhi v/s DHBVNL-Gurgaon

Meetings with AVP, GM. Sr. Manager-Operations, Chief Engineer HBVNL

Sample Study was undertaken at BSES, Delhi and HBVNL Gurgaon,

Skilled manpower is used in four stages of Distribution namely-

Incoming High Voltage grids,

Distribution Sub stations, Distribution Network at consumer end,

Consumer installation,

Infrastructure facilities, transport/ handling.

It was observed that the difference in performance of above 2 models lies in efficient management of 3Ps-

People i.e. level of training development,

Public Relations-building customer service and relations

Streamlining procedures processes and prompt decisions.

It is creditable that in 8 years of operation BSES has brought down distribution losses by 70% with a marked improvement in customer services, whereas similar figures for DHBVNL Gurgaon are almost half with fairly poor record of break down and customer service performance

Study of Skill Assessment in BSES Rajdhani Ltd.- based on live study with the help of various functionaries at all levels.

Study conducted under four headings-

Stage of operation

Activity level

Level of Skill required

Level of experience required

As evident from the study the total number of skills involved in Power

Distribution activities from highly skilled to semi-skilled are assessed as 20 in numbers.

Detailed analysis is tabulated as under-

Table 4.10 Skill Assessment data of BSES

Stage	Equipment Activities	Skilled Requirement		
		<u>Responsibility</u>	<u>Qualification</u>	<u>ExpYrs</u>
Incoming supply High voltage Grid	High voltage cable network HT Circuit breakers Transformers Control and metering equipment Relays and electrical panels	High level skill and experience of operation and maintenance of high voltage equipment Executive engineer Assistant Exen	Degree in .engineering	10
			Dip in engineering	20
			Degree/diploma	7/15
Distribution Sub stations	Low Voltage cable Network, LT breaker Panels	1.Exen	Degree in engineering	10
			Dip in engineering	20
		2.Asst engineer	Degree in engineering	7
			Dip in engineering	15
Consumer Network	Meters Bus bars Circuit Breakers	3.Asst engineer	Degree in engineering	5
			Dip in. engineering	10
			ITI in engineering	20
		4.Jr engineer	Degree in engineering	1
			Dip in. engineering	5
			ITI engineering	15
Consumer Installation, Services		5.Jr engineer Instrument	Degree in instrumentation	1
			Dip in inst.	5
			ITI inst.	15
		6.Jr engineer System/IT	Degree in comp	1
			Dip in comp	5
Distribution Infrastructure	Transport, Handling Equipment Service Tools	7.Jr engineer Workshop	Degree in engineering	1
			Dip in elec. engineering	5
			ITI in electrical	15
		8.Jr engineer Store	Degree in engineering	1
				5

			Dip in engineering ITI in engineering	15
		9.graduate engr trainee	Degree in electrical	½
		10.Sr Foreman	Diploma in engineering ITI electrical Higher secondary	½
		11.Diploma Trainee	Diploma	1
		12.Foreman	ITI Higher secondary	7 12
		13.Asst foreman	ITI Higher secondary	5 10
		14.Sr lineman	ITI Higher secondary	3 7
		15.Lineman	ITI Higher secondary	1 5
		16.Welder/ Fabricator	ITI Higher secondary	1 5
		17.Jr Lineman	ITI Higher secondary	Nil 3
		18.Trainee lineman	ITI Higher secondary	½ 2
		19.Driver	LMV license	5
		20.HV Driver	HMV license	5

Important Skill Development Initiatives, undertaken by BSES (Study by Accenture Global Consulting co, of BSES operations in year 2005)

Accenture, Global Consulting co was engaged to help in identifying key People issues in achieving Targeted Performance and plan-Organization structure , redesigned by **putting key focus on HR Function**, and more emphasis on Performance Management, by workforce Planning, clarifying Roles, career plans, incentives and create a friendly work culture.

Through training organization, a systematic plan worked out for regular training of employees. To facilitate skill development .in house Training center has

been set up with skill upgradation plan which helps in filling 75 -80% of vacancies through internal promotions

Special programs have been planned for behavioral changes like customer orientation teamwork, quality management in addition technical training. These measures have helped to improve productivity by over 100% during last 5 years and helped in maintaining high morale through open communication, developmental programs and career growth

DHVBNL Gurgaon still works on bureaucratic style where employees contribute at minimal level as they are not exposed to any developmental programs to bring about any attitudinal change. Besides no motivational factors to encourage performance

Studies indicate that In BSES, Skill Development takes place – Through following steps

Table 4.11 - Skill Development in BSES

in house training center	25%
on the job training-	50%
job rotation	15%
new induction	10%

However in HVBNL, Persons learn on the job, get promotion on Seniority basis without any criteria for merit and performance, Inefficiency of regular workers is made good by outsourcing or subcontracting major activities, resulting in overall poor quality and morale. Problems lie in mental makeup and lack of positivity among senior personnel in the organization.

Summing Up

Both studies clearly bring out that Major thrust of improvements in BSES has come through changing work culture and customer orientation at all levels and skill building through ongoing training programs. Slow progress of DHVBNL is for want

of these initiatives. Interestingly both organization acquired over 90% of manpower from earlier Government Departments Changing work culture through skill building especially to improve team work has made the difference in performance. These outcomes support our Research finding.

In DHBVNL, Vocational education was found lacking by most respondents. Major areas of concern are Skill Competencies which are poor and outdated, need continuous upgradation to attain Productivity Standards Overall quality levels are low, requires ample retraining to develop required work culture, limited Skill options, not updated with Changing market needs hardly any practical training in industry, work more as raw hands, take time to settle no soft skill training as a result lack in Communication/ team, work culture.

Feedback shows that performance of in house trained school pass out found better than ITI trained because of better and whole some training in former system.

4.4.7 Capacity Roadmap for VE by year 2015 as per Planning Commission

Aggregate Projected Plan of VE from school onwards in different segments of Vocational Education to cater to new addition as well as retraining of existing workforce.

The actual data shows that we need to build an additional capacity of more than 100% on the current level to reach the targeted figure of 15 million trained hands per annum.

Another serious issue which needs to be addressed as brought out in the research study is establishing a standardized system of accreditation, evaluation and certification to achieve uniform quality at different level of Vocational Education.

In view of speedy growth of service sector, especially of export market special focus has to be given for organizing soft skill training from high school onwards so as to meet multifarious needs of vast variety of service sector

Overall an integrated approach is needed at national level to plan, execute and monitor through an effective NVQF System as brought in the Research Study.

Table-4.12

Institute	Capacity	Quantity
Vocational secondary, Vocational higher secondary Vocational Junior college	2.5 million 1 million 0.5 million	10 to 15 % of the total capacity High schools
Vocational Graduate college	0.25 million	Higher secondary schools
Vocational Post grad and above	0.10million 4.5 million	Total enrolment 45 million in 1.8 lac schools
Polytechnics/ Junior technical college	1 million	2000 polytechnics 3000 Jr. tech Colleges
ITI's / ITC's	2 million students PA	ITI (public) 2000 ITC (private) 6000 Total 8000
Industrial units	2 million	1 lac industrial units Medium, Large
Open training program	2.5 million	Distance Education Short Programs
Agro related institutes	2 million	Rural/Agro Programs
In house /pvt institutes	1 million	3-12 month Programs
Total	15million	

CHAPTER 4 B

DESIGN OF-SEMI STRUCTURE QUESTIONNAIRE FOR SURVEY

In order to conduct a field survey of stake holders to collect data in respect of skill requirements, its delivery, quality assurance & various deficiencies a structured questionnaire was designed in consultation with senior functionaries of industrial Associations and reputed consultants in the field of skill developments.

The framework of the questionnaire is reproduced below (Role of Evaluation in VE Training – ILO Study year 2006)

4.1 APPRAISAL OF VE SYSTEM IN POWER/ENGINEERING SECTOR

Assessment of skills and proficiencies for three levels – semi skilled, skilled, and highly skilled.

Appraisal system with feedback and review

Grievance redressal system

Plan for regular training for skill development

Performance oriented promotions

Performance oriented compensation

Open door communication policy

Behavioral training like customer orientation team work, quality and innovations

Separate training department with proper training centers

in-house

outside

4.2 PERSPECTIVE OF VOCATIONAL EDUCATION SYSTEM IN INDUSTRY

Survey of Large/Medium/Small Industries

Appraisal of Government's Vocational Education Policy in the country

Prior to 1991 i.e. before opening of the economy

Between 1991 to 2011, important changes if any

Appraise existing vocational training system in the country

Future Policy drawn by skill development corps involving private participation

Through industrial associations in each important sector

Is the policy user friendly, what are the pluses and minuses?

Industry Related data

Current strength of skill semi-skilled and unskilled workers in organization

Annual growth in each category

last 3 yrs (average per year)

next 3 yrs (average per year)

How do you meet these requirements?

Skilled

Semi-Skilled

Unskilled

From training institutes

From local schools

Own employee references, other sources specify

Do you have to retrain them for adoption – generally how long?

What are other hurdles / problems?

Are you satisfied with?

Quantity

Quality

Productivity

Suggestions for measuring /improving these parameters

Does the system compare with international standards, what are the gaps and

Recommendations to improve the system?

Training and Development activities

Brief induction program

Duration

Content

Criteria

How training is imparted

In-house

Outside help

Evaluation

On the Job Training

Polytechnic at Delhi

Criteria for admission

No. of Trades

Course how proficiency is decided
Carrier growth plan
Up gradation of skills
Measurement of Professional Standards /career growth
Performance Appraisal
Are there standards to measure proficiency?
Certification for skill levels / standards
Up gradation of skills /continuous learning
Skilled based career growth paths
Feedback system to the employee
Attrition data especially of skilled and highly skilled employees

4.3 SURVEY OF VOCATIONAL INSTITUTE- QUESTIONNAIRE

ITI at Gurgaon
Duration, content
Practical Training-in the institute, in the industries
Feedback from industries
Feedback from students
Feedback from faculties
Gaps- identify

4.4 SURVEY OF NSDC- QUESTIONNAIRE

Target for Training – 15 million per year through PPP model
Growth Centers identified
Role of Sector Skill Council
Modalities of tie up with large companies
Type of skills
Duration of skill
Sourcing of faculties
Evaluation of Skills
Certification of Skills
Employment assistance
Cost of Training
Performance data of Last three years
Target for Next three year

Feedback from Industries

4.5 SURVEY FOR RURAL SCHEMES- QUESTIONNAIRES

Survey of Govt. projects, village training schemes by visiting 5 villages in Gurgaon and Faridabad District

Type of Trades

Duration of Trades

Training Faculty

Practical Training

Scope for employment and remuneration

Feedback from Trainees

Feedback from Faculty

Cost of Training

Overall assessment

Results and finding-

Based on Semi structured interviews which were conducted broadly as per the above mentioned reference points Findings under each category are summarized at the end of each major topic.