

## SKILL DEVELOPMENT AND EMPLOYABILITY POTENTIAL IN HARYANA

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### ABSTRACT

Economic development and human capital formation go hand in hand. Human capital has been identified as a key stimulus of the development process of the national economies. The challenges of globalization and emergence of knowledge economies have led to the need of human capital formation and hence skill development in all the sectors for employability. Indian economy and its States have experienced structural change with fast rising share of services sector. Skill development of labor through education and vocational training for generating employment is highly needed. Reviewing the literature, it is found that skill development is a major determinant of the rate of economic development and employment (Michael Kremer,1993; Arvil.V.Adams,2003). NSDC skill gap report stressed on the skilling needs and techniques to fill the skill gap projected. Skill is defined as the ability and capacity acquired through deliberate, systematic and sustained efforts to smoothly and adaptively carrying out complex activities or job functions involving ideas(cognitive skills),things (technical skills) and people(inter-personal skills). The efficiency of the market-linked programmes is high for equipping youth with skills. In this backdrop the present paper aims to: a) assess the need and role of skill development in Haryana. b) To analyse the ways and means to enhance skill development and employability potential in Haryana. c) To find out the challenges /obstacles in skill development in Haryana. d) To suggest policy implications. Secondary data from NSDC, Economic and Statistical organization, Haryana and other official sources are used. The state of Haryana has been selected for the present study. The present study points to the urgent need of skill development in the highly labour-absorbing areas in Haryana.

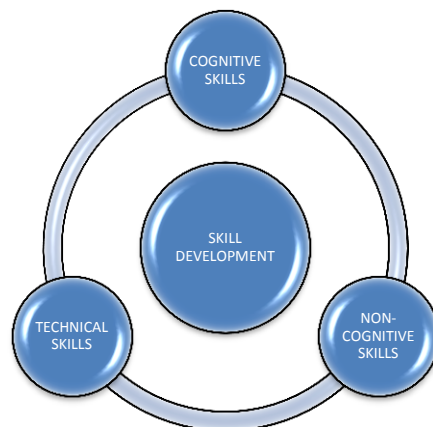
**Key Words:** Skill, Employment, Vocational, Education, Training

### Introduction

Economic development and human capital formation go hand in hand. Human capital has been identified as a key stimulus of the development process of the national economies. The challenges of globalisation and emergence of knowledge economies have led to the need of human capital formation and hence skill development in all the sectors. Indian economy and its States have experienced structural change with fast rising share of services sector. Questions have been raised regarding the sustainability of service-led growth of Indian economy because structural change occurred, in terms of output but not in terms of employment, leading to low employment intensity of growth. Skill development of labour through education and vocational training for generating employment is highly needed, especially for the service sector. Skill is defined as the ability and capacity acquired through deliberate, systematic and sustained efforts to smoothly and adaptively carrying out complex activities or job functions involving ideas(cognitive skills),things (technical skills) and people(inter-personal skills).

Service sector consists of the soft parts of the economy, i.e., activities where people offer their knowledge and time to improve productivity, performance, potential, and sustainability. The basic characteristic of this sector is the production of services instead of end-products. Services (also known as intangible goods) include attention, advice, experience and discussion. Broadly, services can be classified –Distributive (trade, transport); Producer (banking, insurance); Social (health, education); and Personal (restaurants, hotels, beauty parlours). Another important fact is that Service sector growth and development sustainability can go hand in hand. Producing services require relatively less natural capital and more human capital, leading the nations to invest more in education and training and providing employment to the people. Moreover it will put less pressure on the local, national and global environment. Skill development is essentially required for the absorption of labour in the fast growing service sector along with primary and secondary sectors in Haryana.

Figure 1



The skill development programmes must identify that Skills consist of cognitive, non-cognitive, and technical skills. Cognitive skills are the basic mental abilities we use to think, study, and learn. These are the tools with which technical and life skills are acquired. Non-cognitive skills in turn refer to personality traits and behaviors. These skills are often under-valued in terms of their impact on employment and earnings.

Figure 2

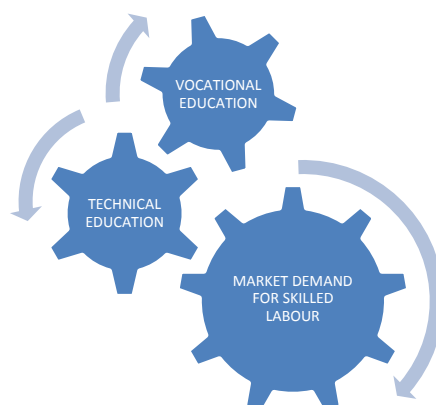
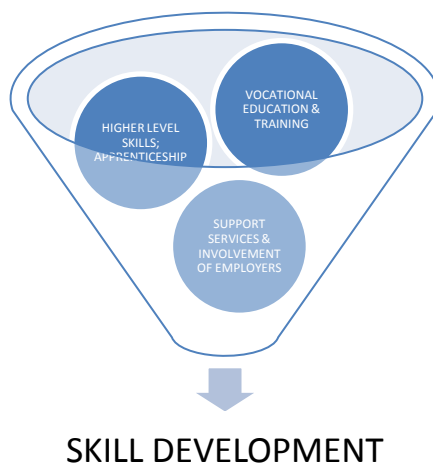


Figure 2 depicts that various forms of skill develop must be market linked. The evidence shows that technical and vocational education is more effective when focused on skills closely linked to market demand (Unesco).

Figure 3 shows that higher levels skills, apprenticeship, vocational education and training and support services together lead to skill development (ILO).

Figure 3



- Higher level skills will benefit if an economy is producing jobs that demand these skills.
- Special programs providing skills and other support services have been successful in improving employment outcomes for disadvantaged youths.
- Vocational education and training can help widen the opportunities for young women.
- The involvement of employers in the design and delivery of training contributes to better outcomes for all, including the disadvantaged.
- Apprenticeships can also be an effective means for providing skills alongside schools. Vocational education and training offers no guarantee as a solution to youth unemployment. Technical or vocational education generally lead to better educational attainment and ensure future prospects.

Figure 4

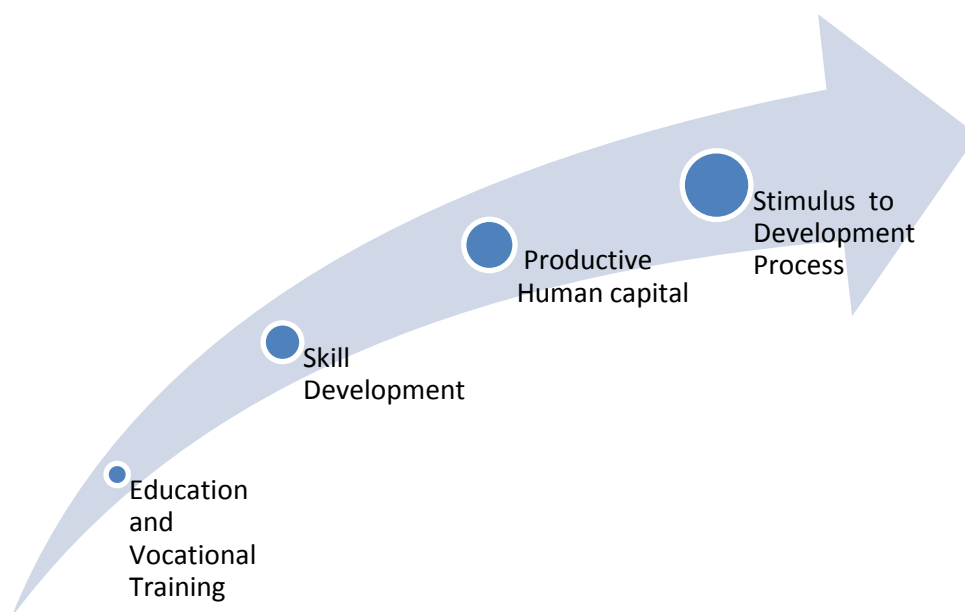


Figure4 highlights that skill development through education and vocational training will convert the population into productive human capital which ultimately provides stimulus to economic development process.

**Objectives of the study:** a) To study the present skill capacity of Haryana and analyse the ways and means to enhance skill development and employability potential. b) To find out the challenges /obstacles in skill development. d) To suggest policy implications.

**Data and Methodology:** Secondary data from NSDC, Economic and Statistical organisation, Haryana and other official sources is used. The selected parameters for carrying out the study are general education and vocational training, employment intensity.

**Study Area:** The state of Haryana has been selected for the present study. The study focuses on the skill development in general and service sector in particular. Haryana is one of the fastest growing states of India. A large number of manufacturing units have been set up giving boost to construction sector and other allied activities. The share of service sector in GSDP in Haryana has increased to 58.9 percent in 2014-15. During the 11<sup>th</sup> plan, the service sector grew at an average growth rate of 12.2 percent. The major service subsectors are-Trade, hotels, restaurants; transport, storage, communication; finance, insurance, real estate, business services; community, social and personal services. The sub-sectors which are expected to create demand for skilled, semi-skilled and minimally skilled persons are-education, training, IT and IT-enabled, health care, banking and financial services, communication, retail trade, transport and logistics, construction etc. The present study points to the urgent need of skill development in the highly labour-absorbing areas in Haryana. The efficiency of the market -linked programmes is high for equipping youth with skills. The government of Haryana must focus on the implementation of the skill development programmes to match the supply of skilled labour with the ever-rising demand for skilled personnel for the fast growing sectors in Haryana.

### Review of literature:

**Santosh Mehrotra (2015)** distinguishes between skill shortages, skill gaps, skill under utilisation and skill deficit. Skill shortages means when it is hard to fill the vacancy due to lack of applicants with the required skills. Skill gaps means when the employer is not satisfied with the skills or ability of the worker. Skill deficit means where both the levels of supply and demand of the skill are below some desirable levels. Governments must be clear about these concepts while making policies.

The NSDC skill gap report (2013) stressed on the skilling needs and techniques to fill the skill gap projected for the years 2017 and 2022.

**Ramaswamy and Agrawal (2012)** studied the employment growth, structure, and job quality outcomes in manufacturing and service-sector in urban India spanning the period 1999-2000 to 2009-10, using the NSS surveys of employment and unemployment. The more skilled a person is more chances of his /her getting higher wages in service sector. The service-sector is relatively more skill demanding than manufacturing. Skill composition of the workforce is markedly different between the two sectors with services clearly skill biased.

**Paul Beaudry, Patrick Francois (2005)** highlighted the role of skill acquisition to enhance managerial skills and the adoption of modern technologies.

**Samia Mohammed Nour (2004)** studied technological change and skill development in Arab Gulf Countries and emphasised the significant role of human capital in the technological development.

**Arvil. V. Adams (2003)** studied the impact of skills on employment and earnings. The study found that the technical and vocational education is more effective when focused on skills closely linked to the market demand.

**Michael Kremer (1993)** in O-ring theory of economic development highlighted that the tasks of production must be carried out efficiently.

The above studies show thrust on the skill development for generating employment opportunities and accelerating economic growth. Reviewing the literature, it is found that human capital formation through skill development is a major determinant of the rate of economic development. Skill development has become the global currency. Without proper investment in skills, people languish on the margins of the society.

Inshort,

$ED=f(Kh)$

$Kh=f(Skd)$

$Skd=f(Ve,Tr,Sf)$  All these variables are positively related.

Where ED-Economic development. Kh-Human Capital. Skd- Skill development. Ve-vocational education.Tr-training & development.Sf-soft skills.

The goal of inclusive growth can be realized only when the technological progress gets translated in the form of skill development to the masses.

### Role of Skill Development and Employment Generation

Therefore, skill development is essential for generating employment in all the sectors of the economy. Skill development is effective key in stimulating a sustainable development process and can make a contribution to facilitating the transition from the informal to the formal economy. Skill development helps to face the challenges to meet new demands of changing economies and new technologies in the context of globalization. Skill development can help to enhance the quality and relevance of education and training for the masses which can generate new innovation, investment, technological change, enterprise development, economic diversification and competitiveness that economies need to accelerate the creation of more jobs, but also more productive jobs. India and its states have a large pool of young workforce and will be the largest supplier of human resources. Haryana is also having a large pool of human resources. National skill development mission aims to make India the skill capital of the world. This requires innovations in skilling models by the institutions and the corporate sector which will lead to resource optimization relating to increasing apprenticeships and industry participation. It requires training at the grass root levels by identifying the local talents and the local demands. Beyond the domestic needs for skilled labour, we must be ready for global opportunities.

The following are the sub -Missions of skill development programmes in Haryana.

**Institutional Training** to drive quantity, quality and reach of training provision and outcomes, and to change people's attitude about vocational training and make skill development which is effective for long term needs. Government aims at setting up a number of branded skilling centers together with the private sector, in Public Private Partnership (PPP) mode. Toward this end, the National Skill Development Corporation (NSDC) has been catalyzing the private sector since 2009 – it has over 200 private training providers who are cumulatively expected to provide skills training to about 150 million people by 2022.

**Infrastructure:** It is essential in building capacity and ensuring high quality skill development in infrastructure, including construction, to increase the productivity of workers.

**Convergence:** Central and state ministries/departments, private training providers, assessment agencies, industry bodies, and workers are involved, so proper coordination is essential. E.g. Kaushal Vardhan Kendras (KVKs) to increase outreach and provide training.

**Trainers:** Ensuring adequate availability of trainers by improving the overall quality of instruction at training institutions.

**Overseas Employment:** It aims to ensure that youth in India are trained as per the highest global standards for better absorption abroad and to ensure the international mobility of skilled workers in the country.

**Sustainable Livelihoods:** It focuses that trainees are provided a pathway to access long-term sustainable livelihoods, through enhanced potential. Support activities will include providing guidance counselling, mentorship and so on.

**Leveraging Public Infrastructure:** It aims to optimize the usage of existing public infrastructure to scale up skill development efforts. A detailed mapping of existing infrastructure is required in order to set up an implementation framework for this.

Administration of skill development in Haryana is undertaken by 53 departments

Out of these, 16 departments are involved in implementing skill development schemes. In addition, Directorate, Secondary education, Higher education are also involved. (Skill development ecosystem, 2017). The nodal body is HSDM- Haryana Skill Development Mission.

### **The Present skill capacity in Haryana**

Skill development has two aspects: Demand side and Supply side. Supply side represents the Skill capacity in Haryana. The stylized set of facts is that as economic development takes place along with structural change, the quality of life reflected in terms of good education standards and skilful human capital, improves. Economic development must improve not only the economic indicators (income) but also the social factors like education standards, literacy rates, human capital and labour efficiency etc. The education system and the responsiveness of labour market are important growth agents which must improve with rising income levels. Analysing these factors in the state of Haryana, it is found that though Haryana economy has progressed in terms of economic indicators but the social indicators still act as obstacles to growth. Moreover, there are inter-district variations in terms of increased per capita income, literacy rates, education quality etc.

The structural change in the economy of Haryana has led to higher economic growth rates. Haryana economy is a fast progressive economy. In the year 2016-17, Haryana recorded a per capita income growth of 7.2% and an overall growth in gross state domestic product (GSDP) of 8.7%. Workforce participation rates are remarkably low across the state. In 2011, the workforce participation rate was 50.44% for men and 17.79% for women. According to the economic survey, 2014-15, the growth rate in Haryana was 16.06% in 2012, making it the second highest growing economy after Maharashtra. The Haryana economy grew at CAGR of 9.01% during the period 2006-12. The process of structural change has been taking place which accelerated the process of economic growth in Haryana. The growth of SGDP at constant prices (2004-05) is 7.8 % in the year 2014-15(AE). The sector-wise growth rate is also higher. In the year 2008-09, agriculture, Industry and service sector grew at 7.2%, 3.5% and 11.6% respectively while these growth rates are - 0.1%, 4.6% and 11.4% respectively for agriculture, industry and service sector in 2014-15. Looking at the changing sectoral composition of the SGDP, the share of primary sector fell from 23.1% to 15%, that of secondary from 32.9% to 27.7%, and that of service sector rose from 44.0% to 58.0% for the period 2004-05 to 2013-14. (table 1 & 2). It has been possible because of higher growth rate of service sector. The service sector is growing at a faster rate, indicating high potential of the absorption of labour in the near future. The key contributor districts in the service sector income in Haryana are Gurgaon (22.55%), Faridabad (14.14%), Panipat (9.18%), Ambala (7.41%) and Karnal (4.73%).

**Table 1 Changing Sectoral Composition of SGDP , Haryana (percent )**

year	Agriculture	Industry	Services
1969-70	60.7	17.6	21.7
1999-00	33.9	28.2	37.9
2006-07	21.3	32.1	46.6
2014-15	14.1	27.0	58.9

*Source: Economic surveys, Haryana , various years*

The economic growth in Haryana is called Service -led as is evident from the rising share and high growth rates of service activities.(Table 2)

**Table 2 Growth Rate of Service Sub-Sectors in Haryana**

Sub-Sector	2007-12	2012-13	2013-14	2014-15
Trade,hotels,restaurants	14.8	5.5	3.5	8.9
Transport,storage,communication	8.8	9.3	9.6	9.1
Finanace,insurance,real estate,business services	11.4	9.6	16.8	15.6
Community,social,personal services	11.7	10.2	11.1	11.9
Overall services growth	12.2	7.9	9.4	11.4

*Source: Economic & Statistical dept. Haryana*

Service sector comprise of many heterogeneous services like trade, hotels, transport, communication, hospitality management, beauty and wellness, medical etc. Table 3 shows that the service sub-sectors grew at fast rate. During 2007-12, trade, hotels and restaurants occupied the first place as the growth rate was highest at 14.8 percent .The community, social and personal services grew at 11.7 percent, while finance, real estate grew at 11.4 percent. In the year 2014-15, the first place in terms of growth rate is occupied by finance, insurance and business services. This high growth of service sector help in the generation of manufacturing and other sectors, leading to more demand for skilled labour.

### **The Demographic Advantage of Haryana**

Haryana with an area of 44,212 sq. km, accounting 1.34 Percent of the geographical area, is one of the smaller states in India. Administratively, the state is divided into 4 divisions comprising 21 districts. Haryana enjoys demographic advantage as the state has a population of 2.54 crores (2.09 percent of India, 2011 census and earlier it was 2.06 Percent,2001 census) showing an increase of 2.11 crores over 2001.Rural population is about 65 percent. The emerging demographic dynamics of the state ensures that it will have more number under working age category. This has two implications. One, Haryana will have lowest dependency ratio (ratio of non-working population to working population). A lower dependency ratio implies lower social cost on an ageing population. Second, the global workforce is expected to be dominated by Indians in the next few decades. Haryana has adequate young labour force to face the global market.ble 3). The demographic dynamics provide Haryana with strong advantages in so far as achieving high rates of growth powered by an enlarging workforce concerned. However, Haryana will be able to utilise this demographic dividend productively provided it is able to equip its work force with appropriate skills.

Therefore, skill development emerges as one of the most critical aspect in Haryana. It is expected that Haryana will experience a huge bulge in its working age population between the years 2012-22. This makes the task of skilling even more important and it is estimated that between 2012 and 2017, Haryana will add 1.73 million people to its working age population and a further 1.51 million during the period 2017-2022.The percentage of working age population which is 64 percent, will rise to 66 percent in the year 2022 (Table 3). Haryana has adequate supply of man power which can be used to accelerate the growth process of the state provided that proper education and training is imparted, generating productive human capital. Ensuring adequate skilling of the available work force is essential to raise the productivity and economic growth. Therefore, skill development emerges as one of the most critical aspect in Haryana.

**Table 3 Age Wise Haryana Demographics Projections (percentage)**

Year	0-14 Years	15-59Years	60 & above Years
2012	28	64	8
2017	26	66	8
2022	24	66	10

Source: NSDC report , Haryana, 2013

Although, Haryana has demographic advantage, but the state has not been able to convert the rising population into productive human resources. Skill mismatch has two serious implications for the labour market. One, it prevents the growth of work force and leads to bottlenecks in the availability of labour for industry requirements. Second, on the demand side, large section of the workforce do not find adequately remunerative occupations due to in appropriate qualifications. Table 3 shows that 66 percent of the total population is between the age group of 15-59 years i.e working age group.

### Skill capacity in Haryana

Status of Literacy and education standards in Haryana: Haryana has 165.99 lakhs literate and educated population. The rate of literacy is 75.55 percent, of males (84.6%) and for females (65.94%) in 2013. The govt. aims to increase the Gross enrolment Ratio from 60% to 65% by the year 2017. The number of enrolment goes on falling as the level of education rises, indicating a higher rate of dropouts. It means the process of skilling must start at earlier level of education. Moreover, the quality of education is poor, giving no technical training to the students along with the education. As a result, the pass-out students are not capable to get any job or start their own enterprise. Table 4 shows the rising number of educational institutions in Haryana and Table 5 depicts that number of scholars at the primary levels almost got doubled, at the middle level, it rose by 1.89 times, at secondary level, this number fell down during the period 1990-91 to 2015-16 and at higher levels, it rose by 2.40 times during the period 1990-91 to 2013-14. This clearly indicates that state failed to provide basic education to all. The enrolment ratio fell significantly after primary level, leading to high drop -out ratio after primary level. (Table 6 & Table 7). The reasons for high drop-out rate are socio-economic factors. The children are either made to contribute to family income or they look after their siblings at home. Although government provides enough of stipends to the SC, ST and OBCs students in government schools, yet the attendance of students and the pass percentage remains low in schools.

**Table 4 No. of Recognized Educational Institutions, Haryana**

Institution	1990-91	2015-16
Universities	3	43
Arts and Science Colleges	120	288
Engineering courses	2	148
Teacher Training colleges	18	491
High/Senior secondary schools	2356	7663
Middle schools	1399	4430
Primary schools/pre-primary schools	5109	9675

Source: Statistical abstract , Haryana ,various years.

**Table 5 Education Level in Haryana**

Level	Number of scholars 1990-91	Number of scholars 2013-14	Number of scholars 2015-16
Primary	784637	25,13,863	1633573
Middle	547105	14,42,860	1038326
High/Secondary	1552643	14,73,038	1475045
Grand total (schools)	2884385	5340974	4146944
Higher( colleges)	138405	332363	-----

Source: Statistical abstract , Haryana various years

**Table 6 Enrolment Ratio in Schools , Haryana**

Level	Enrolment ratio(2015-16)
Classes I-V (6-11 years)	
Boys	88.56
Girls	92.00
total	90.10
Classes VI-VIII (11-14 years)	
Boys	77.34
Girls	80.64
total	78.86
Classes I-VIII (6-14 years)	
Boys	84.31
Girls	87.58
Total	85.79

Source: Statistical abstract ,Haryana 2015 pp 123-158

**Table 7 Drop Out rate in schools, Haryana**

Level	Drop out rate (2015-16)
Classes I-V (6-11 years)	
Boys	-1.13
Girls	2.24
total	-1.64
Classes VI-VIII (11-14 years)	
Boys	19.59
Girls	8.10
total	14.37
Classes I-VIII (6-14 years)	
Boys	20.17
Girls	19.46
total	19.84

Source: Statistical abstract ,Haryana 2015 pp 123-158

**Table 8 Teacher- pupil ratio**

year	Primary school	Middle school	High school	Senior secondary
1990-91	46	36	20	46
2012-13	74	29	45	45
2013-14	30	27	17	28

Source: Statistical abstract, Haryana 2015-16 pp 143-148

**Haryana failed to realize that good school education is the foundation of productive human resources.** Given a poor base of quality education (except private schools), it has been a challenge to build the skill capacity of growing work force in Haryana. Haryana has not been able to utilize its demographic advantage to the fullest. The record of number of recognised institutions in Haryana : Arts and science colleges(216), Teachers training colleges (472), Higher/senior secondary schools (7338), middle level schools (4102), Primary schools (10091), Schools for handicaps (06), Total number of higher education institutions (903). The intake capacity of Engineering colleges was 355 in the year 1990-91, it rose to 58399 in the year 2013. Although the government of Haryana tried to upgrade the quality of teachers in Government schools by appointing the experienced teachers from govt.aided provate schools to

government schools. Given the poor work culture in government schools in Haryana, this upgradation may or may not lead to the upgradation in the quality of education and learning.

Education system can be judged on the basis of following parameters: Accessibility, Availability, and Adaptability. These are the challenges for the skill development in Haryana.

**Accessability** of primary education, middle level education and vocational education is highly required in Haryana. Higher drop-out rates of educational institutions mostly after the age of 15 years and above and especially in female students. There are less opportunities of industrial training in the rural areas due to less number of training institutes. There is limited access to the job-related information, skill in demand and guidance on skill development programmes run by the government. High gender gaps persists. 90 percent of the NSDC partners providing skill training are located in Gurgaon, Rohtak and a few other big cities and are not accessible to all. Accessibility for the disadvantaged and rural section of the society is difficult due to high costs and other social impediments like transportation problems especially for a girl student travelling away from home. Less number of vocational institutes are there in the rural areas.

**Availability:** There is less number of government schools in many areas. The fee structure of private schools and ITIs is very high, making it difficult for many to afford. There is low quality of education at all levels in Haryana, especially in the government schools and institutes. The failure of Sarv Shiksha Abhiyaan is a proof. The results of Haryana board of school education also speak of poor performance of teachers and students. Most of the students fail to get the sufficient marks to be eligible to get admission in the next level or to get any skill development training.

**Adaptability:** There is lack of uniform qualification framework. Large gaps exist in the curriculum of courses, quality of education and training in the govt. and private institutes and rural –urban areas. There is poor quality of education resulting in lack of literacy and numeracy skills on the part of students. These students find it extremely difficult to absorb even basic skills. Many skills taught in curriculum are obsolete and their end result is that workers are unable to find jobs according to their aspirations. Role of private sector is also important as it can help to match the skill demand and supply. There is lack of proper coordination among different govt. bodies which provide skill development training.

As per the Annual Status of Education Report (ASER) 2014, Over 22,000 students in the age group of 3-16 years were included in the survey of over 11,500 households. The report of survey of 575 villages in Haryana shows that nearly 40% students of Class V in government as well private schools were not able to read from textbooks of even Class II. This number was 33.5 percent (2010) and 34 percent (2011). The 40% statistic is a further slump from that of 33.5% in 2010 and 34% in 2011. The ability to learn simple arithmetic is declining in rural schools. The decline in learning levels is more severe in government schools where over 75% of Class V students were not able to solve a division arithmetic involving a three-digit and a single digit number during the survey in 2012. The number of such students was just 50% two years ago. Around 60% schools don't meet the 40:1 ratio of pupils-teachers as specified under the Right to Education Act. There is dire need to bring about qualitative changes in the education system, especially the quality of teachers at school level. There is inadequacy of policy measures to promote education among the rural communities in general and among the girls in particular.

**Lack of vocational courses especially for the service sector:** There are very few vocational courses. Such courses are essential to enable the potential work force to become job-ready in the areas of trade, hotels, restaurants, hospitality management, storage management, logistics, transport services, real estate services, personal services and community health services. The quality of professional courses is not up to the mark. The pass-outs do not have any experience of industry. With the opening of many shopping malls, demand for many new service is fast emerging like retail management, banking, accountants etc. Even the technical graduates do not have hands on work during their 3-4 years of course duration. The mounting numbers of qualified young graduates, diploma holders, management graduates find themselves out of place in the job-market. The talent of the youth of Haryana is being wasted by not imparting them the required skills. A low proportion of the workforce has higher education or any form of skills training. In spite of massive effort to expand the capacity of providing high-quality formal education or skills training, the workforce is still unable to gain any kind of benefit from the high economic growth.

There is hostile attitude of parents towards skill development courses after matriculation and XII class, showing low acceptability of vocational education in Haryana. Vocational education programmes are underweighted as compared to traditional courses. There is less credibility of such courses (Table 9).

**Table 9 Percentage Enrollment of Students to Various Courses**

Arts, Commerce & Science	Teacher Training	Engineering	medical	Pharmacy	Agriculture	Veternary
91.04	1.15	3.20	1.66	0.59	1.00	0.03

*Source: Education department, Haryana*

Looking at the quantiative and qualitative aspects, it is found that on the Quantitative side, the number of schools, ITIs, engineering colleges are rising. Out of 140 higher education institutions including 3 universities, 57(41 percent) were accredited as C++/C+/C and only five got A+/A. (source: NAAC report, Haryana). On the Quality side, Haryana failed to realize that good school education is the foundation of productive human resources. Given a poor base of quality education (except private schools), it has been a challenge to build the skill capacity of growing work force in Haryana. It is a challenge for Haryana to utilize its demographic advantage to the fullest. Lack of vocational courses for Agriculture sector, manufacturing sector and especially for the service sector. Such courses are essential to enable the potential work force to become job-ready in the areas of trade, hotels, restaurants, hospitality management, storage management, logistics, transport services, real estate services, personal services and community health services, retail management, banking, accountants etc.

### **Skill development Schemes in Haryana**

The government of Haryana focuses on skill development avenues for the youth. Haryana presently has 149 governmental and 192 private industrial training institutes (ITIs), with more than 84,000 sanctioned seats, offering 75 different trades for skill based training to the unemployed youth within Haryana.(Table 10). 33 ITIs are especially for girls. 71 societies are working with 78 government ITIs to develop skill capacity. Seven teacher training centre with 320 trainees per year are also functional. A Common Service Centres Scheme and Bharatnet - National Optical Fiber Networks and digital literacy centres have been implemented. Haryana's technical training and skills development infrastructure also includes training for apprentices and skill-building at the school level. The Central Apprenticeship Council outlines the policies and different norms and standards of Apprenticeship training. The entry level requirements vary from level 8-12 pass-outs. The training modules vary between six months and four years.

The department of Industrial Training is providing training through various schemes and programmes under the aegis of the SCVT and NCVT/ the DGE&T, Ministry of Labour and Employment, Govt. of India: Craftsmen Training Scheme: Apprenticeship Training Scheme ; Skill Development Initiatives scheme based on Modular Employable Skills.

- Seekho-Sikhao (Training of the Trainers)
- sSMART (Skill Mart)
- DAKSHA(Dissemination of Applied Knowledge and Skill in Haryana)
- SURYA ( Skilling,Up-skilling,Re-skilling of Youth and Assessment)

**Table 10 Governement Institutes in Haryana**

Government ITIs	149
Private ITIs	192
Govt. Teacher Training Centres:	7
Private Teacher Training Centres:	2
Govt. Craft Teacher Training Centres	1
Private Art & Craft Teacher Training Centres:	5

*Source: Department of Industrial Training*

Haryana's technical training and skills development infrastructure also includes training for apprentices and skill-building at the school level. The existing vocational training infrastructure is concentrated in a few districts (Table 11). Training for apprentices and skill-building at the school level is provided.

**Table 11 Districts with High Penetration of Training Centres (2013-14)**

District	No. of ITIs, ITCs	Seat capacity	NSDC partner	Seat Density(seats per 1000)
High Penetration areas				
Rohtak	14	4184	3	4.1
Jhajjar	12	2988	1	3.1
Hisar	20	5288	0	3.0
Ambala	12	2840	3	2.9
Panchkula	8	1616	0	2.9
Rewari	16	2416	0	2.7
Yamunanagar	17	3184	0	2.6

Source: NSDC report, Haryana.

Besides, the high penetration districts, many districts are medium penetration areas like Gurugram, sonipat, karnal, Fatehabad, Mahendergarh, Jind, Sirsa. But Bhiwani, Kaithal, Kurukhetra, Palwal, Mewat, Faridabad and Panipat have low capacity for vocational training.

### Employment Potential in Haryana

This part of the present paper discusses the employment potential in Haryana. Haryana economy has been experiencing structural change in domestic incomes and labour share as well. The occupational distribution of the work force shows that in 1980-81, 65 percent of the work force was engaged in the primary sector, 14.25 % in secondary sector and 20.62 % in the services sector. Even after 30 years, the primary sector remains the largest employment provider in Haryana. The employment in secondary sector improved marginally and service sector employment rose by around 16 percent during the same period (Table 12). Further, disaggregation of service sector employment shows that trade (wholesale & retail) and construction is the leading labour absorption sectors.

**Table 12 Occupational Distribution of Workforce, Haryana**

Year	Primary sector	Secondary sector	Service sector
1980-81	65.13	14.25	20.62
1990-91	61.44	12.55	26.02
2000-01	52.40	15.97	31.63
2009-10	44.11	19.43	36.46
CAGR(1980-2010)	-1.29	1.04	1.92

Source: Statistical Abstracts, Haryana

Table 12 and 13 indicates the occupational distribution of the work force and occupational distribution within service sector. Table 12 depicts that the share of service sector in total employment rose to 36.46 percent in 2009-10. Table 13 highlights that trade provides highest employment after construction followed by transport, public administration and education. These are the service sub-sectors for which proper skill development modules must be designed and skills need to be imparted. The demand for skill training is derived from the need to align the skills supply with demand. Haryana is ahead of the availability of skilled workers some sectors (Table 14).

**Table 13 Distribution of Labour force in the service sector, Haryana**

Sector	Labour force/000
Trade wholesale and retail	102
Hotels & restaurants	9
Transport, storage & communication	47
Financial Intermediation	8
Real estate	17

Public administration	33
Education	30
Health& social work	12
Others	23
construction	111

Source: Haryana Development Report , 2012-13.

Table 14 Skilled Worker (per 1000) in Haryana, 2014

Sector	All India	Haryana
Manufacturing	110	154
Construction	96	111
Education	26	30

Source: Skill Gap Report, 2013-14

### Future projections: (Mis-match of Demand -Supply)

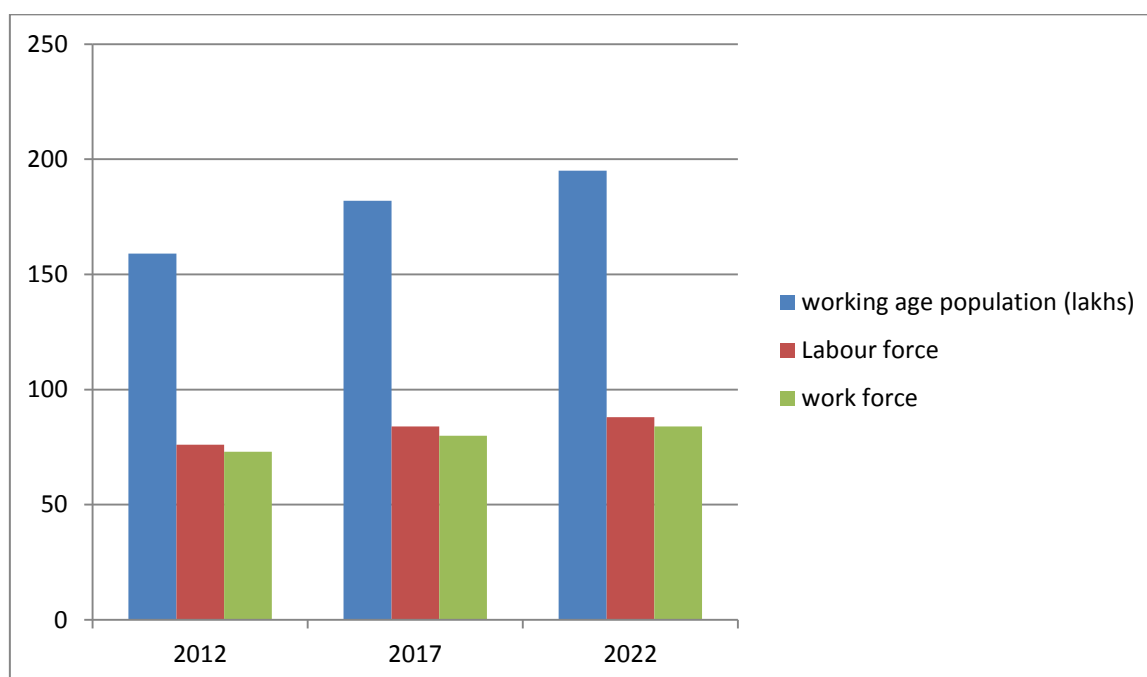
The projections for the rising workforce show that by the year 2022, the number of workforce will rise from 73 lakhs in 2012 to 84 lakhs in the year 2022(table 15 & figure 5 ). There is urgent need to create jobs in future. This can happen at a faster pace only when the rising workforce is provided with adequate required skills at all level. This needs the total restructure of the education system in the state. Looking at the present system of theoretical education, it can be concluded that there will remain a huge skill gap as per the demand of the service sector.

Table 15 Work Force Estimation in Haryana (Lakhs)

Year	Working-age population	Labour force	Work force
2012	159	76	73
2017	182	84	80
2022	195	88	84

Source: KPMG report.

Figure 5



On the basis of KPMG and NSDC report, the manpower requirements in service sub sectors during 2017-22 are shown in table 16. In Banking and insurance, 25% man-power in skilled category and 75 percent of the manpower is needed in semi-skilled category, while Transport & Logistics require 3% skilled and 44% semi-skilled manpower, in Health care, it is 20% skilled and 79 % semi-skilled, it is 29% skilled and 69.9% semi-skilled in IT sector and it is 25% skilled and 75% semi-skilled in Communication sector. The manpower requirements for the various service sectors, indicate that skill development process must be accelerated to match the rising demand for the various skills by the year 2022. Transport & Logistics is the largest sub-sector, requiring maximum number (417946) persons, followed by Retail sector, Banking and Finance, Health care, & IT&IT-enabled. The required skills for these sectors are at three levels-skilled, semi-skilled and minimally skilled. The transport and logistics sector require Drivers, logistics management personnel, computer data operators & logistics planning. Banking sector require core banking skills, sales & marketing, Insurance, underwriters and claims management. Retail sector needs supervisor, shop floor executives, logistics staff, store managers, stock planning. Health care need doctors, physicians, assistants, lab technicians, pharmacists, OT assistants, physiotherapists, biomedical lab attendants. Education sector require school teachers, college teachers, technical teachers and trainers. It sector needs testing, web testers, coders, programmers, documentation personnel.

Looking at the demand side, it is found that the demand for skilled and semi-skilled labour is on the rise in Haryana.

**Table 16 Manpower Requirements in various Sectors, Haryana (2017-2022)**

Sector	Skilled	Semi-skilled	Minimally skilled	Total
Agro-based industries	93	365	506	964
Beverages	233	930	1163	2325
Construction based material	2717	10871	13589	27177
Auto & its components	3555	14219	17218	35555
Communication	10106	30317	--	40422
Banking & Finance	41433	124298	-	165730
Transport & Logistics	11684	185530	220732	417946
Health care	20943	83771	-	104714
IT & ITes	27160	63374	-	90535
Retail	30796	30796	246366	307958
Education	2191	14753	-	16944
Communication	10106	30317	-	40422
Hospitality	985	1477	7384	9846

*Source: NSDC Report, Haryana*

It is highly significant to understand the areas of potential demand for skilled labour so that Haryana youth can be trained and skilled as per the rising requirements of the particular area (Table 17).

**Table 17 Projected Areas of High Demand Potential, Haryana**

Guar Gum	Paper & Paper Products
Agro Based Industries	Leather
Scientific Instruments	Hospitality
Mineral Processing	Manufacturing of Electrical Products
Footwear	Rubber and plastics products
Chemical & Chemical Products	Manufacturing of Engineering Products
Pharma & Medicinal Products	Fabricated metal products
Food Processing	Construction Based Material
Textiles	Auto and Auto Components

Communication	Education and Training
Retail	Construction,
IT & ITes	Healthcare
Transportations and Logistics	Banking and Financial Services

Source: NSDC Report, Haryana

It is pertinent to be exact about the estimated required labour force in the coming years so that government of Haryana is able to set up the needed quality institutes and build up an army of skilled labour force.(table 18).

**Table 18 Labour Force Estimation to assess the Demand Supply Gap 2017-2022 (Lakhs)**

Type	Demand for Human Resources (New Jobs)	Working population to be skilled (Gross Addition to Working Age Population)	Gross Addition to labour force
Skilled	1.91	7.57	3.64
Semi-skilled	6.67	3.10	1.49
Minimally skilled	9.51	13.54	6.51
Type	Demand for human resources(new jobs)	Net addition to Labour force* (Supply)	Supply-demand gap
Skilled	1.91	1.34	0.57
Semi-skilled	6.67	0.5	6.15
Minimally skilled	9.51	3.11	6.40

Source: Based on Statistical abstracts, Haryana, NSDC Reports. \*Net addition to labour force = (Gross addition to labour force)-(Number of Retirees)

#### Identification of skills:

There is need to identify the skills required for each of the service sub sectors. For example: The skills required for hospitality management includes language command, communication skills, skills to perform customer services, financial management, understanding the industry, cultural awareness etc. For customer services: skills needed are patience, attentiveness, clear communication skills, time management skills etc. For banking sector, skills needed are Finance, risk- management, analytical skills, communication skills etc. The demand for the various services from the service sector is rising in Haryana. All the service sub sectors are experiencing a rise in demand for services. For example: the demand for software services, teachers, nurses, hospitality services, trade, banking services. The reason is evident that service sector demand increases due to rising incomes of the household sector and demand for service as input in the other sector especially in the industrial sector.

Human assets of Haryana need to be developed to capitalise them and to make them capable of contributing in the development process of Haryana .Otherwise, the demographic advantage of Haryana will go waste. The potentials of the youth must be channelized by providing them required skill development opportunities so that they positively contribute in the GSDP rather than becoming a burden. The labour force participation rate, however, increases sharply in the age group of 15-19 years. Thus, the attainment of higher education and participation in the labour force tend to move in opposite directions for significant sections of the population. Typically, the pursuit of higher education should delay entry into the labour force until at least the age of 22-24 years –the time by which students finish post- graduate education in universities. However, an earlier entry into the labour force implies lesser educational qualifications on part of the entrants at the time of entry. Such entry reflects adversely upon the skill endowments of the entrants. 80 percent of the workforce does not possess skills that are commensurate with employment requirements. The shortcomings of Haryana's skills development system are not confined to limited capacities alone.

A key shortcoming of the system is its inability to align to labour market requirements. As a result, the employability of several highly educated entrants is not according to their acquired qualifications. The bias of the higher education system towards arts, science and commerce has affected employment prospects by not equipping students with the skills appropriate for industry and professional occupations. This bias and the resultant distortion could have been corrected by a matching expansion in technical education capacities. The technical training system also suffers from a

variety of qualitative shortcomings. Most of the polytechnics and ITIs run out-dated programmes with poor infrastructural facilities. There is lack of interaction between the industries and institutes which has constrained the growth of awareness.

#### SWOC Analysis, Haryana

Strengths	Weaknesses	Opportunities	Challenges
Demographic dividend, Proximity to national capital, 13 districts covered under NCR, Political stability, Infrastrucutre.	Shortage of skill in all sectors, Gender bias in the society and in the labor market, Lack of soft skills, Poor quality education and training, Lack of awareness among youth regarding new opportunities of Education, training and employment. Less acceptability of vocational education and other short term skill programmes.	High growth rate of potential demand for labour in all the sectors especially manufacturing and service sector which require skill development..	Development of soft skills among the youth (new entrants in the labour market), Career awareness, Improving the gross enrolment ratio, enhancing the quality of education and training. High priority Areas are-- vocational training in construction, transport and Logistics, retail trade, hotels and restaurants, BFSI, health care, IT, ITes, Education and training. Medium Priority areas-- textile, auto-components, fabricated metals, food processing.

#### Challenges ahead:

Skill development is required for inclusive and sustainable development. It is a significant driver of economic development. Haryana is also endeavouring to upgrade the skill capacity of the present and future labour. Creation of a training market through involvement of private sector is essential. Haryana lacks sufficient facilities, equipment and qualified staff. E.g. the quality of M.B.A. graduates is not up to mark. The technical graduates are not suitable for placement in Logistics, IT sector and so on. Vocational courses are required in the field of hospitality management, Para-medical services like nurses, lab- technicians, store keeping, retail management, trading, hair-cut, beauty and wellness etc. Short term courses like certificate courses and diploma courses after high and senior secondary education levels can be made more popular. The biggest challenge is to change the mindset of the society that higher educational without any professional training is futile. Generally parents prefer academic education and focus on the degree courses in Arts or commerce as these courses are status symbol in the society. They do not want their ward to do any vocational courses after matric or XII class. Links between training and service sub-sectors needs: The various sub-sectors' demand for a variety of skills needed for the all the heterogeneous services is quickly upgrading, so the gap between skill supply and demand is widening. The options are: 'Train the Trainer model'; Subsidising the training programmes; Upgrading outdated-training systems and under-qualified instructors. On the job training for upgrading the existing work force. Proper co-ordination among varied agencies and ministries which provide skill development programmes. The small and medium-sized companies do not provide in-service training to the employees mainly due to the shortages of finances. The challenge is to increase the company participation in skill development programmes not only for in-services employees but also for the students of the vocational courses. There is no training for many skills of the informal sector. The biggest challenge is to change the mindset of the society that higher educational without any professional training is futile. Generally parents prefer academic education and focus on the degree courses in Arts or commerce as these courses are status symbol in the society. They do not want their ward to do any vocational courses after matric or XII class. The various sub-sectors' demand for a variety of skills needed for the all the heterogeneous services is quickly upgrading, so the gap between skill supply and demand is widening. As a result, the employability of several highly educated entrants is not according to their acquired qualifications. Quality of training is important. But many institutions offer non-attending admissions in courses like B.ed., engineering, post graduate courses. There is lack of proper exposure to industry. Supply side innovations in skilling must match demand side required skills

**Conclusions and Suggestions:** The drivers of skill development are- Demographic Advantage, Education Attainment, Inclusive Growth, Open ness of markets and above all State's cordinated and well implemented efforts. Haryana has advantage of having all of these. The challenge is to involve the masses and execute the skill development schemes right from the school level irrespective of any politics.

- ❖ Skill awareness must begin at the school level itself. Effective schooling must help the students to learn the basic maths and languages- Hindi, regional language and English.
- ❖ The need is to upgrade the curriculum of various courses at all levels to suit the demand of the growing sectors.
- ❖ New courses matching the industry demand must be started.
- ❖ An efficient and comprehensive vocational education system should be set up. The mindset of the society needs to be changed so that there is more acceptance of Vocational Courses than the formal education. Placement -linked courses should be there.
- ❖ In tune with the objective of women empowerment, more skill development courses should be designed for women to enable them to get jobs or start their own business.
- ❖ The fast growing service sectors generating more demand for skilled and semi-skilled labour are transport and logistics, Retail, banking and insurance and Health and IT sector.
- ❖ The role of private players is more important.
- ❖ Upgrading outdated-training systems and under-qualified instructors.
- ❖ On the job training for upgrading the existing works force.
- ❖ Proper co-ordination among varied agencies and ministries which provide skill development programmes.
- ❖ The small and medium-sized companies do not provide in-service training to the employees mainly due to the shortages of finances.
- ❖ The skill capacity in Haryana is not up to the mark due to lack of accessibility, availability, adaptability of school and vocational education and training.
- ❖ A well knit information system should be developed which connects the students, trainers, industry, government and the private players. Strong and effective linkages between the industry and the trainer institute with adequate provisions for constant knowledge upgrading of the trainers.
- ❖ There is need to identify and estimate the required skill set for the priority sector like agriculture and its diversified activities, small scale industries and other sectors.
- ❖ In coherence with the market demand, institutions must start the required courses. e.g. –In Haryana, the construction sector generates higher demand for labour(highly skilled, semi- skilled/minimally skilled) so more seats in the engineering institutes must be allocated to civil engineering branch rather than equal seats to all the branches.
- ❖ District level assessment of skill shortages and assessment of the local talents/resources must be made so as to design the vocational courses for higher absorption of labour.

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