CHALLENGES IN RESPECT TO SKILL DEVELOPMENT INITIATIVES FOR 5 TRILLION DOLLAR ECONOMY BY 2025 – A CASE OF CONSTRUCTION SECTOR

Prof.(Dr) K.R. Ramana[1]
FIV, FAIQS (Aus.), FIIPE, LM-IBC, ASSP (USA)
Dr. K. Srinivas[2]
BE (Civil), M.Tech, MBA, Ph.d

[1]*Professor, C.S.I Institute of Technology (CSIIT) , Hyderabad- 500003 Telangana State M: 9849065624; Email: kr.ramana@gmail.com;*

[2]*Dr. K. Srinivas, Professor, Jawaharlal Nehru University of Fine Arts & Architecture, Masab Tank, Hyderabad,TS*
Mobile: 8019756125 ksrinivasap@gmail.com

ABSTRACT
In the development of an economy**,** skill development occupies a dominant place and appropriate policies are required for the same. Performance of an economy is dependent on its human resources. The parameters driving the economic growth and socioeconomic stability of any country are skills and education.

In the short term policy, reducing unemployment forms the basis the framing of the skills issue and in the long term policy, skill requirement are broadly seen whether the skilled and trained work force for a given Industry meets the requirement with the demand imposed in a particular sector of the economy based on the economic growth which is projected to be 5 trillion dollars by 2025 for India.

The trend that is visible today and is expected to last atleast for another 2 decades is that the proportion of the workforce in the working age group is well in excess of those dependent on them..Acceleration of economic growth can be achieved by way of huge labour workforce through skill development thereby making the best use of the demographic dividend. The accelerated economic growth has fuelled the demand for skilled manpower which has resulted in woeful shortage of skilled manpower in the country in general and construction sector in particular.

Based on the path for a 5Trillion dollar growth by 2025, will India be able to match or slip this growth considering a humble 5% contribution of the construction sector to the GDP Growth and where India could stand in an accelerated growth path. The paper also provides suggestion to meet the challenges of construction Industry needs for skilled man power with an attempt to meet the skills demand in Indian Construction sector.
Keywords: Socioeconomic stability, demographic dividend, Accelerated Economic growth, key drivers.

1.0 Introduction

Overall effectiveness and empowering of an individual for working more efficiently can be achieved by skill Development. This results in economy becoming more productive, innovative and competitive by way of having skilled human potential. Globalization and technological changes has provided both challenges and growing opportunities for economic expansion and job creation. Countries which have higher and better levels of human skills get adjusted more effectively to the changes that are taking place at a rapid pace. Apart from access to vocational and technical education, access to secondary and tertiary education is also equally important. Attention should also be focussed on informal learning on the job, structured apprenticeships and other enterprise based training, along with government and non-governmental training programs.

Skills development is a much broader concept involving a diverse community and as a result it is quite difficult to monitor this development. Skills development in construction sector is a good example and difficult to monitor and update the numbers being skilled at a given level due a diverse agency involved in skills training and updating the statistics is also difficulty as only those training being done under NSDC franchise for Construction sector skills centre and available within a reasonable accurate figure. There are a number of informal bodies providing skills training in construction trades and these are restricted to only the company employees and the details of trained workers are not publicly shared.

2.0 Construction Sector Size and Manpower

Construction is an important activity that drives emerging economies like India, which are yet to develop large network of Infrastructure and Real Estate Assets. The estimated size of construction industry is about Indian rupees 2.1 trillion in the year 2008. After agriculture sector in India the construction sector second largest contributing to the economic activity and it is providing employment opportunity to around 33 million workforces. The Compounded Annual Growth Rate (CAGR) of

India's Construction industry has risen to around 11.1% in eight years (from 2001 to 2008). This is the result of increased housing demand and massive investment in infrastructure. The infrastructure sectors spending in Projects like Roads, Ports, power plants, Airports is projected at more than Rs 2.5 trillion on annual basis for the next six years, and will demand 92 million hours of labour.

Construction sector accounts for investment of around 53% of the Gross Fixed Capital Formation in the country. This has resulted in immense development of the economy and ensured that the supply chain movement goes at a brisk pace. The construction sector is linked to various industries like steel, cement, paints, chemicals, tiles, fixtures, accessories and fittings. In the short term this my have serve as a demand booster, while in the long term it has contributed to boosting the infrastructure capacity (NSDC 2012), Table-1 shows the size and growth of the construction sector GDP in India.

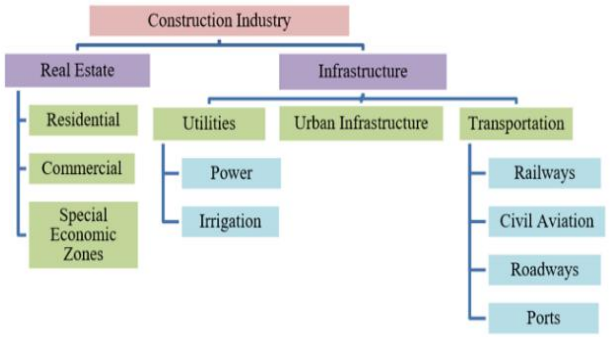
TABLE-1.1
Growth and size of Construction Industry in terms of GDP at constant prices(Indian Rupees in Billions)

S.No	Year	GDP Growth (Indian Rupees in Billions)
1	2001	1,084
2	2002	1,127
3	2003	1,217
4	2004	1,362
5	2005	1.500
6	2006	1,839
7	2007	2.055
8	2008	2,263
Average CAGR is 11.1%		

Source: Economic survey 2008-2009 and IMaCS Analysis 2

A broad Classification of The Construction sector can be depicted into two segments (NSDC 2012). Infrastructure [Transportation, Urban Development, Utilities] and Real Estate [Residential, commercial, Industrial and Special Economic Zones (SIZ's)]

FIGURE 1.1
Landscape of Indian Construction Industry



Source: IMaCS analysis

The Real Estate sector contributes to around 24% percent of the Construction Gross Domestic Product of country where as the Infrastructure sector contributes to about 76%percent.Depending on the expected growth in the Real Estate sector and Infrastructure sectors, it is anticipated that about 83million people would be engaged in the Construction sector by the year 2022. The increment construction workforce demand between the year 2008 and 2022 is projected to around 47 million. The composition sector wise is as follows:

TABLE NO.1.2
Projected Human Resources Required

Const Industry	2008	2012	2018	2022	Increment
	(in 000s)				
Infrastructure	25177	33868	48280	5,289	33,111

Real Estate	10790	14515	20692	24981	14,191
Total	35968	48383	68972	83270	47,302

Source: IMaCs Analysis

FIGURE 1.2
Projected figures in Billions of Rupees from2008 to 2022 with a Cumulative Aggregate growth rate of 9.5 to 10%
Projected Real GDP of Construction Sector (In Billion Indian Rupees)

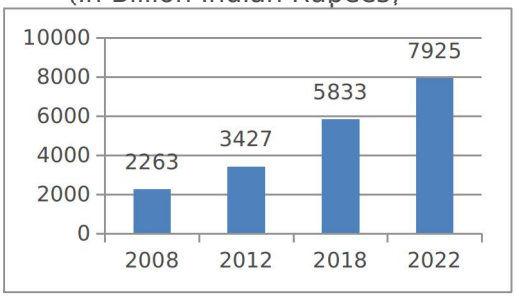


TABLE 1.3
India: GDP in Current Prices

S.No	Year	GDP (BILLION USD)
1	1986	252.75
2	1990	326.61
3	1995	399.79
4	2000	466.84
5	2005	834.25
6	2010	1300
7	2015	2000
8	2020	2500
9	2022	3312.95
10	2024	3884.73
11	2026	4534.34

Source : STATISTA, Economics & Politics-International

TABLE 1.4
Segmentation of Work Force in Construction Industry

S.No	Occupation	% (Percentage)
1	Engineers	2.65
2	Technicians and foremen	1.80
3	Clerical	2.50
4	Skilled workers	10
5	Unskilled worker	83.1
	TOTAL	100

3.0 Significance of Study

This paper is intended to highlight the proportion of skilled worker in relation to total manpower in the construction sector. Going by the present way the skilled worker is inducted despite having skill council for construction, adequate skilled and trained worker are not being generated to meet the demand going by the various studies made by study groups based on the secondary data collected. The man power projected by 2025 will be around 90 million and the skilled man power would be around 9 million. With the existing skilled man power generation we can hardly reach 0.5 million per year. Hence there is going to be a mismatch between availability and requirement by end of 2025 when our economy will be reaching a 5 trillion US Dollars.

4.0 Literature Review

4.1 Rubvita Chadha et al (2014) **"**Industry's requirement for employability of Management students in Present scenario". The study has suggested and concluded that skill development can be achieved by way of offering more practical training, developing conversational skills, improving employability skills, organizing frequent personality development workshops and encouraging academia-industry interaction.

4.2 Hari Prasad. N et al (2014) in his study titled "alarming employability skills deficiency a month budding engineering graduates and Diploma holders" – a study on Engineering and Diploma holds in Chittoor district" has concluded that in developing skills, impact of peer group and personal experiences play key role. Quick employment can be attained by focussing on group discussions and professional networking. Answering updated questionnaires related to technical aspect

and continuous interview attempts a helps to sustain corporate employment.

4.3 FICCI skill report by Ernst and Young (2012)

In this research paper on “Skill Development in Construction Industry in India” development of skill wass one of the prime agenda of the Government of India for the 12th Five Year Plan. (2012-2017). This is very much highlighted in a research paper titled “Skill development in construction industry in India”. The government plans to prepare standards required for training programs by setting up sector skills councils. Skills Development is a important initiative for achieving India’s ambitious growth targets as envisaged by captains of industry and it was decided to work with dedication by involving stakeholders, namely the industry, government and academia to develop sustainable and scalable skills propositions which will promote the youth of the country from different sections of the society. The industry is attempting to reduce the skill gap by taking proactive measures to partner with the government. One example of this initiative is the Establishment of Rural Development and Self-Employment Training Institutes.The government as a incentive measure is exempting payment of service tax for all skills training institutes who are involved in vocational education training there by making skills training more affordable to public in large. Companies like L&T, Hindustan construction Corporation (HCC) etc have taken the following initiatives in enhancing the skills of construction workers.

4.4 A Report of the Working Group on Construction for the Eleventh Five Year Plan (for the Period-2007 to 2012)by BMTPC

The size of Construction Industry is estimated at Rs.310,000 crores (includes Private & Public stakes), providing an employment standing at 31 million man-years per year of which unskilled category at 82.45 % occupies the major share. The manpower in construction industry is growing at a constant pace of 8 to 9 % resulting into annual addition of about 25 lakh individuals in addition to existing manpower.. This is a huge task given that they required to be trained in order to have quality, safe and durable structures.

With the advent of innovative building materials, advancement in technology and the need for construction of disaster resistant structures to diffuse the effect of natural disasters, it is very imperative that working professionals update their knowledge and understanding of subjects periodically. Understanding need for capacity building, BMTPC is organizes structured training programmes for working professionals for updating their skills and knowledge in areas of Green Construction Practices, Sustainable Construction, Earthquake Resistant Design and Construction etc

5.0 Objectives of the Study

-To study about the proportion of skilled workforce over the total work force deployed in the construction industry.

-The present level of the total work force in the construction industry.

-Projected work force up to 2022 for the industry.

-Whether Indian construction industry would be able to meet the requirement of skilled workforce by 2025 when GDP is projected for a 5 Trillion US Dollar economy and suggested measures to be taken.

6.0Present Status of Skill Development in Construction Industry and the Challenges Faced

The construction industry in India which is the index of country's progress and its economic development has a huge task in that efforts should be stepped up for training and upskilling its workforce thereby unlocking the growth opportunities in the construction sector and contributing to the nation's development in an optimal manner. In this fast paced era, the indian construction industry needs more skills to be imbibed by an individual. Around 60 million people are employed in construction industry in India and 9% of the country's GDP is contributed by this sector. This sector also creates more than 45 million jobs either directly or indirectly. By 2022, the Indian construction sector will become the largest employer by employing around

76 million people. This means jobs for an additional 16 million people in the coming years. Notwithstanding the rosy predictions,, the construction industry is bogged down by poor productivity relative to other sectors as it is handicapped by intractable problems. Labour-productivity growth globally in construction has averaged only 1% annually in the past two decades as against 2.8% and 3.6% per year growth of the world economy and manufacturing respectively.

According to the McKinsey Global Institute's Construction Productivity Survey and Report, 2017, severe underperformance of the construction sector is attributed to high amount of regulation, dependence on public-sector demand and fragmented, cyclical nature of the industry..

The percentage of service-cost to the overall project-cost is 12-15%, whereas the global standard is higher at more than 40%. Indian companies face the problem of tough competition and lack of recognition for quality work. Constant changes brought about by technology upgradation and rising workplace expectations have fuelled the demand for a skilled work by appreciating safety regulations, working at optimum efficiency and at the same excelling in their trade. Concentratingon multi-skilling their workforce and improving the working environment at project sites for attracting the bright talents in this sector is the need of hour for countries like India if it is to catch with rest of the world.

7.0 Challenges to Meet the Future Need

Construction workers in India continue to be trained by the traditional master craftsmen owing to lack of an institutional mechanism for skill development. Absence of utilisation of new technologies or work methods in traditional methods has made the situation quite challenging as it is necessary that the next generation of workers need consistent and continual upskilling and not just confined to training by giving sustainable value to the entire ecosystem.

A remarkable example of how governments across the world can contribute to training future construction workers is shown by Government of United Kingdom by setting up the Construction Skills Fund (CSF), in 2018.The £22 million CSF is funded by the Department for Education aims to provide training to individuals looking to get into the construction industry through the Construction Industry Training Board for filling the skill gaps and make more people 'site ready'. by enhancing their skills. It has endeavoured to provide training to unemployed and those planning to have a change their career, for entering into construction sector. Similar initiatives are also taken by Construction Industry Development Council in India to for improving the productivity of construction workers. The construction industry too on its part has stepped up its efforts for increasing the sustainability of the sector. However, much more needs to be done by the sector if it is to t capitalise on the growth opportunities in future

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Based on the fore going the challenges faced by the construction industry are:

- Changing market environment, technological progress besides disruptive entrants have triggered industry overhaul
- Value being added by multiple interventions from multiple stakeholders is at stake as they differ in objectivity, focus and framework
- Transformations have taken time but COVID is accelerating the same
- Industry has to prepare itself for new normal

8.0 Suggestions for Enhancing the Capacity of Skilled Manpower in Construction Industry for meeting the demand

1. Various ministries under Government of India dealing with housing, labour employment , skill development, rural development will have to amend changes appropriately to facilitate skill development.
2. Private players should be given incentives by the government to provide training to the construction workers. At the same time, the industry must collaborate on a massive scale for

use of scarce capital resources for skill training

3. Skilling, Re-skilling and Up- skilling is required to endeavour to the needs of future
4. Offering of variety of diploma and vocational programmes and strengthening the industry-academia interaction.
5. There exists already more than 500 Pradhan Mantri Kaushal Kendra in addition to the training centres being run by the industry. The need is to realign and integrate all of them to collectively deliver in uni-direction which would make a paradigm shift in the way the industry conducts itself.
6. There is complete absence of primary research in the industry. There exists no mapping of demand clusters, supply clusters and traditional clusters which needs to be done
7. Move the entire workforce from 'Informal' to 'Formal' as being part of 'Formal' drives lot of inherent advantages.
8. Deploy and ensure that 'Recognition of Prior Learning' (RPL) becomes a mandatory part of the industry before construction workers moves in to a construction site.

All this can be expedited with the right kind of technology which will be vitalto the success.In short, numbers can be achieved but provided the right framework, delivery mechanism and technological support are present.

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