



IMPORTANT CHALLENGES FACING THE ROAD CONSTRUCTION SECTOR

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Abstract

The road construction sector plays a vital role in economic growth by providing essential infrastructure for trade, mobility, and regional development. Despite substantial investments and policy initiatives, the sector continues to face several structural, regulatory, operational, and workforce-related challenges that hinder timely project execution and sustainable growth. This study examines the major challenges confronting the road construction industry with a specific focus on regulatory barriers, lack of a centralized governing authority, workforce conditions, availability of equipment, training practices, land-use disputes, and employer–employee interactions. A structured survey was conducted among construction sector workers to assess job satisfaction, availability of equipment, workplace interactions, training adequacy, and land-use conflicts. The findings reveal moderate to low levels of satisfaction regarding working hours, equipment availability, and employer–employee relations. A significant proportion of workers reported the absence of adequate pre-job training, which directly impacts productivity and safety. Land-use disputes were also identified as a persistent issue affecting construction timelines. The study highlights the urgent need for regulatory reforms, establishment of a nodal supervisory authority, improved workforce training programs, and enhanced awareness of sustainable construction practices. Addressing these challenges is crucial for improving efficiency, reducing delays, and ensuring the long-term sustainability of the road construction sector in India.

Keywords: *Road construction sector; infrastructure development; construction challenges; workforce management; regulatory framework; project delays; sustainability in construction.*

1.1 Overview of the Global Construction

Industry

In 2011, the European Commission presented a message about the sustained competitiveness of the building sector. The initiation of this investigation took place in 2010 by In order to analyze the needs of the industry and determine the viability of launching a new competitive agenda for the EU construction

Sector within the framework of the Smart Growth Agenda 2020, the European Commission's DG Enterprise and Industry established unit G5, "Construction, Pressure Equipment and Metrology. "The starting point is the 1997 Competitiveness Agenda, which was published in the COM (97) 539, "The Competitiveness of the Construction Industry," on November 4, 1997.

With a long list of high-priority measures, the agenda offered a comprehensive strategy for enhancing the construction industry's competitiveness. Thirteen working groups were formed to review the main issues and offer recommendations for action. These groups made voluntary contributions that were used to carry out the action plan. A future building strategy centered on the following three goals will be shaped by the Europe 2020 agenda. i. Smart growth: the development of an economy that is rooted in knowledge and innovation; ii. Sustainable growth: the promotion of a more efficient, renewable, and competitive economy; iii. Inclusive growth: the cultivation of a high-employment economy that promotes social and territorial cohesion.

The construction sector is of strategic importance to the EU, as it provides the necessary infrastructure and structures for the remainder of the economy and society. More than 10% of the EU GDP and more than 50% of fixed capital creation are accounted for by it. It is the greatest singular economic activity and the second largest employer in Europe. Nearly 20 million individuals are directly employed by the sector. The sector indirectly and directly impacts approximately 44 million laborers, as per FIEC1. Buildings account for 40-45% of Europe's energy consumption, with an additional 5% being derived from the refining and transportation of construction products and components.

Infrastructure will be required to adjust to future climate hazards in the medium to long term. Moreover, the environmental and social challenges in the EU and globally must be addressed in the future competitiveness strategy for the construction sector.

1.1 Introduction to the Indian Construction Sector

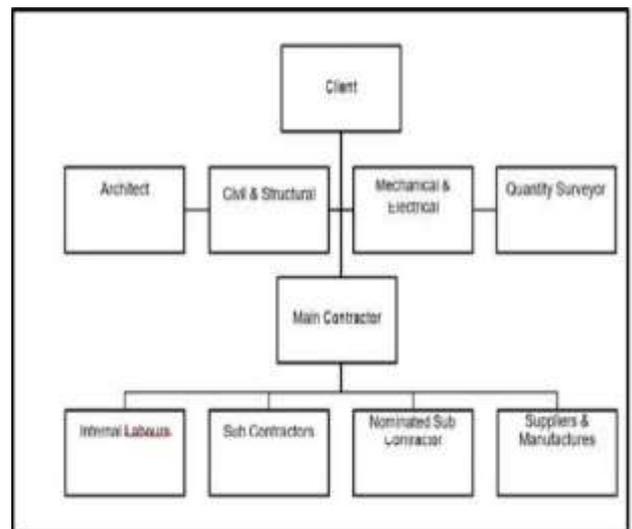


Figure 1.1: Organization of the Construction Sector

The government of India has made substantial investments in the infrastructure sector, close to USD 500 billion, during the Eleventh Plan period (2008–2012), as infrastructure is essential for economic development. Since 2007, the construction industry has contributed more than 8% to the GDP (Planning Commission, 2011). India is expected to remain one of the fastest-growing countries in terms of construction production over the next decade (Accenture & CIDC, 2012). According to ICRA et al. (2011), the aggregate investment in the infrastructure sector from 2012 to 2017 is anticipated to generate a construction demand of \$500 billion. This plan is the result of numerous progressive initiatives that have been implemented in recent years, such as the National Highways Development Project (NHDP), the National Maritime Development Programmed (NMDP), the Electricity Act 2003, and Dedicated Freight Corridors (DFCs).

Nevertheless, there is a significant amount of work that must be done to expedite the implementation of infrastructure in India. The limited infrastructure of India has been subjected to significant duress as a result of its accelerated economic growth over the past decade.

This scarcity would significantly impede India's ambitious economic growth objectives. In order to facilitate anticipated expansion, it is imperative that the nation expedite the conceptualization and execution of its infrastructure development.

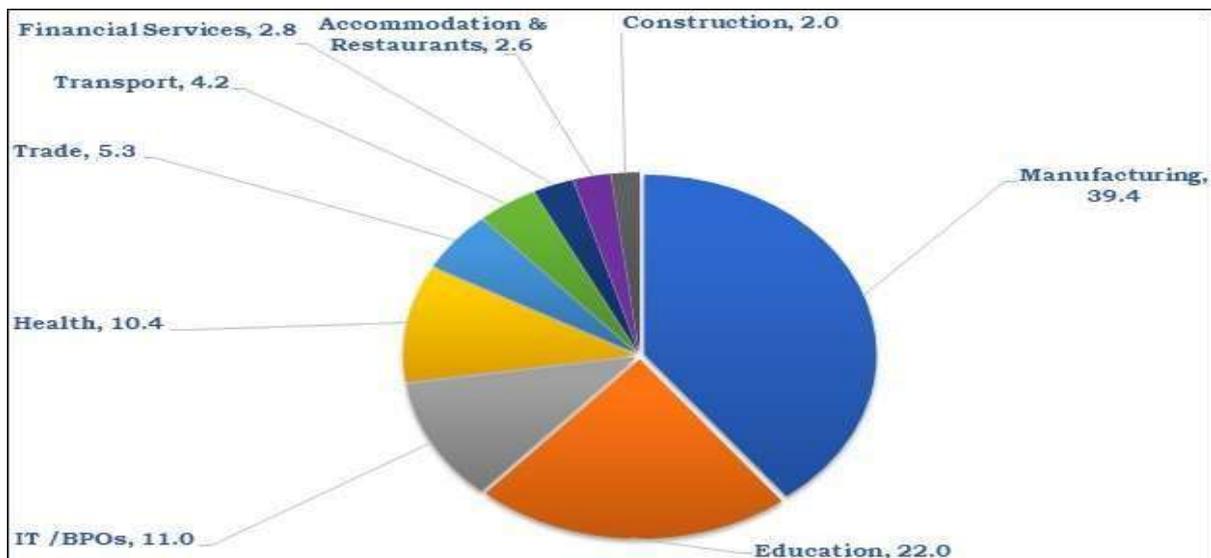


Figure 1.2: Sector-wise share of total employment in the year of 2020

In the 6th Economic Census, these nine industries accounted for over 85% of all employment in units with ten or more workers. The report shows a rising trend in organized segment employment—that is, jobs in nine sectors that employ ten or more people—of the sampled workforce. The "manufacturing" sector employs the greatest percentage of people—roughly 39% of all estimated workers—followed by the education sector (22%). 99.4% of the enterprises were registered under various legislation. Approximately 23.55% of the units offered their employees on-the-job training overall the nine industries, 34.87% of the health sector's units offered on-the-job training; IT/BPOs followed with 31.1%. In all, nine sectors reported 1.85 lakh job openings.

Regular workers made up 85.3% of the workforce, while contract workers made up 8.9%.

1.1.1. Barriers Faced by the Industry

Although construction has been acknowledged as an industry, there isn't now a national regulatory structure in place. As an illustration: Although the "national building code" and the "common general conditions of contract" have been drafted, neither the federal state has declared them to be applicable. It's uncommon to refer to construction law like such. The lack of a single regulatory body overseeing all of India makes the institutions and organizations incompatible. Sales taxes and service taxes are both relevant to the construction sector.

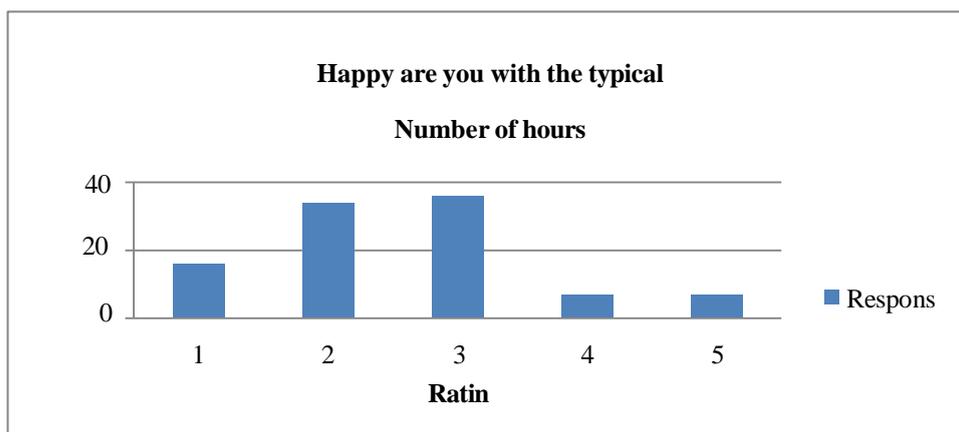
3.1. Survey with response

- Construction-related operations are governed by over 32 legislation, rules, and regulations.
- No one nodal agency has been formed by the government to supervise building operations in the nation.
- The lack of clear laws within the construction sector impacts both residential and commercial buildings, as well as infrastructure projects including highways, ports, harbors, and metros.
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- As well as infrastructure projects including highways, ports, harbors, and metros.
- During the tendering procedure, a body responsible for supervising roadside encroachments before and after the execution should be available.
- Awareness of sustainability and ignorance of it Analysis, Interpretation, and recommendations of Data Analysis, Interpretation, and recommendations of Data.

Q1: How happy are you with the typical number of hours worked each day?

Table 4.1

Happy are you with the typical number of hours	
Rating	Response
1	22
2	24
3	29
4	18
5	7
Total	100

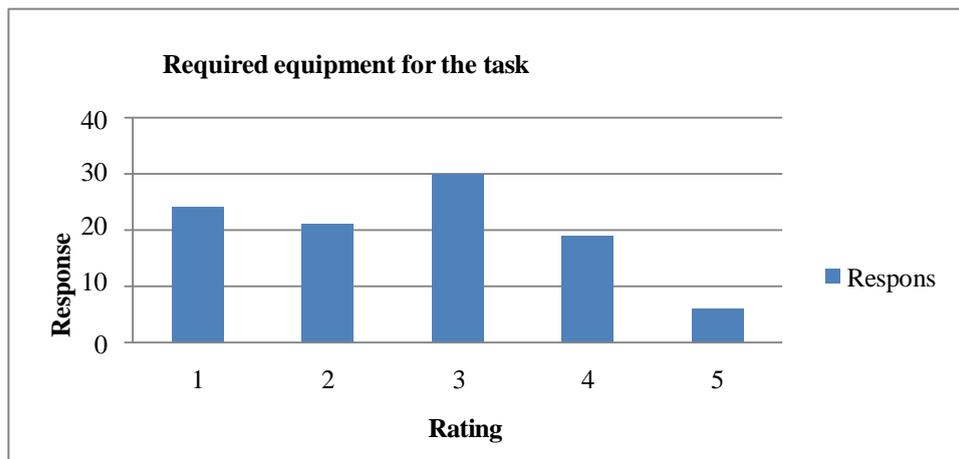


- A total of 22% of the respondents are completely content with their usual working hours, whilst 7% are not at all content with them.

Q2: Do you have the required equipment for the task?

Table 4.2

Required equipment for the task	
Rating	Response
1	24
2	21
3	30
4	19
5	6
total	100



Among the workforce, 24% express high levels of satisfaction with their work, 30% report ordinary satisfaction, and 6% express no happiness at all.

Question 3: How well do Interactions between employers and workers?

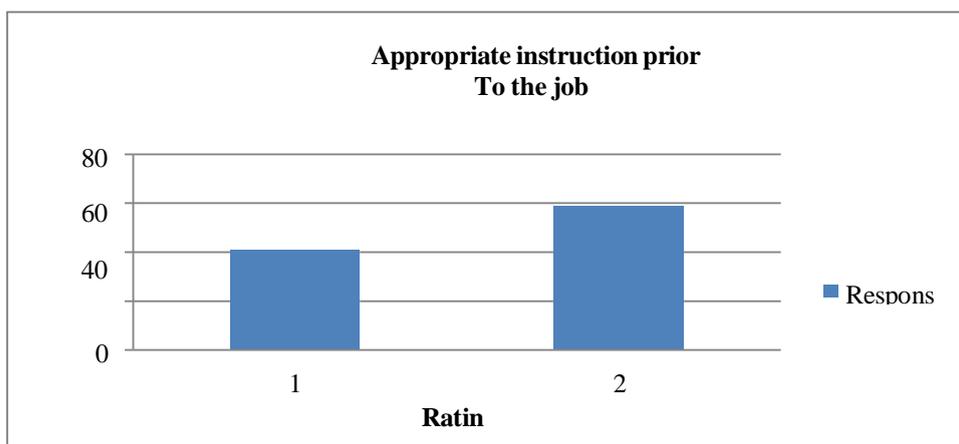
Interactions between employers and workers	
Rating	Response
1	35
2	16
3	23
4	12
5	14
total	100



- A third of employer-employee interactions One-fourth of the workforce are dissatisfied, with 23% indicating an average level of satisfaction.

Question 4: Did you get appropriate instruction prior to the job?

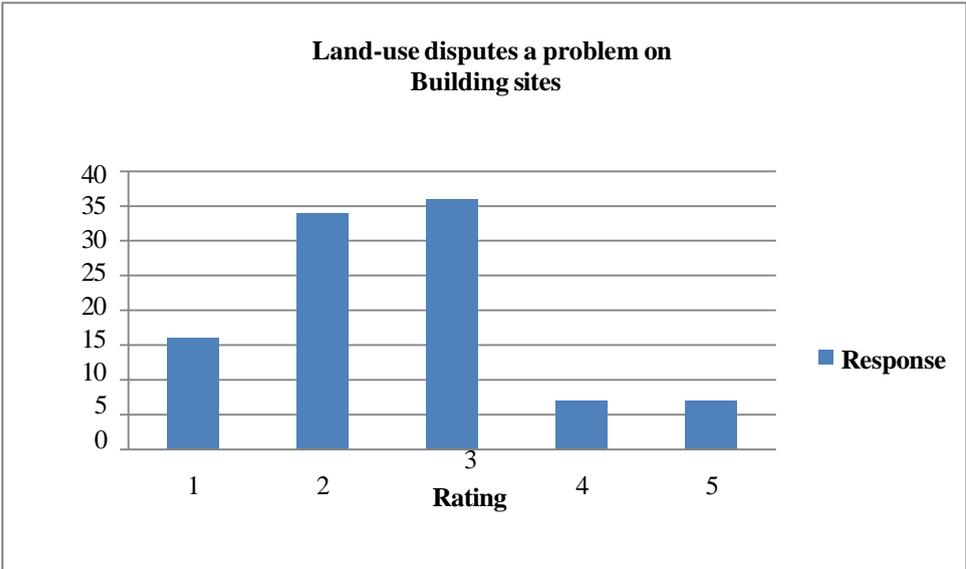
Appropriate Instruction Prior to the job	
	Response
Yes	41
No	59
Total	100



- While 58% of respondents did not receive the required work training, 42% of respondents did receive the necessary training prior to their employment.

Question 5: Are land-use disputes a problem on building sites?

land-use disputes a problem on building sites	
Rating	Response
1	16
2	34
3	36
4	7
5	7
total	100



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