

SIG study on EPC Business

SIG EPC Team

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**24th August 2021
Chennai**

EPC Sector - Overview

➤ Opportunities & Growth Potential

- Global Market: 600 – 1000 Billion USD/year
- 50% Market growth over 15years

➤ Across several sectors

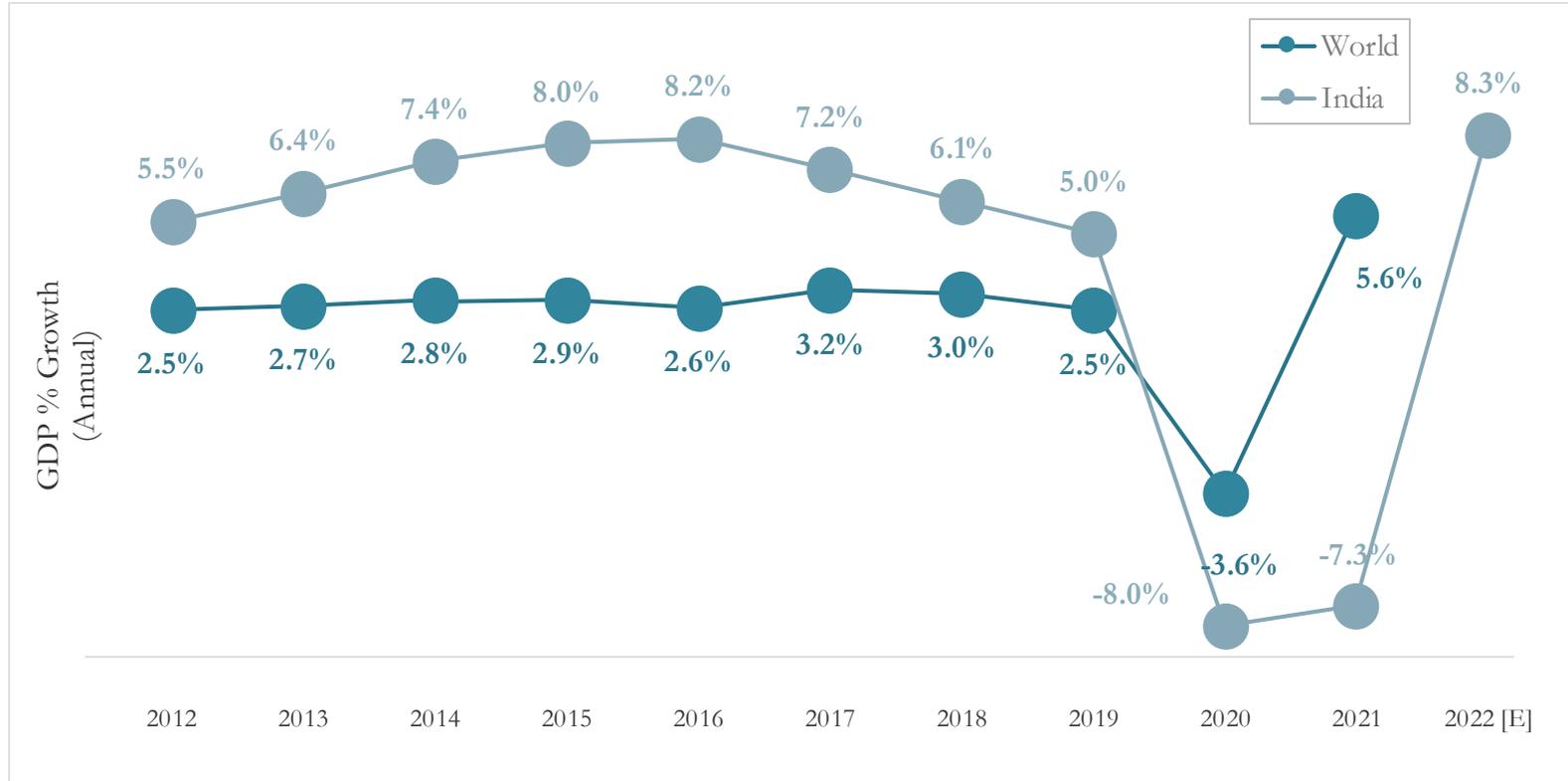
➤ Similar concept of LSTK/EPCM

➤ FIDIC Dec-2017 – Silver book (Turnkey Projects)

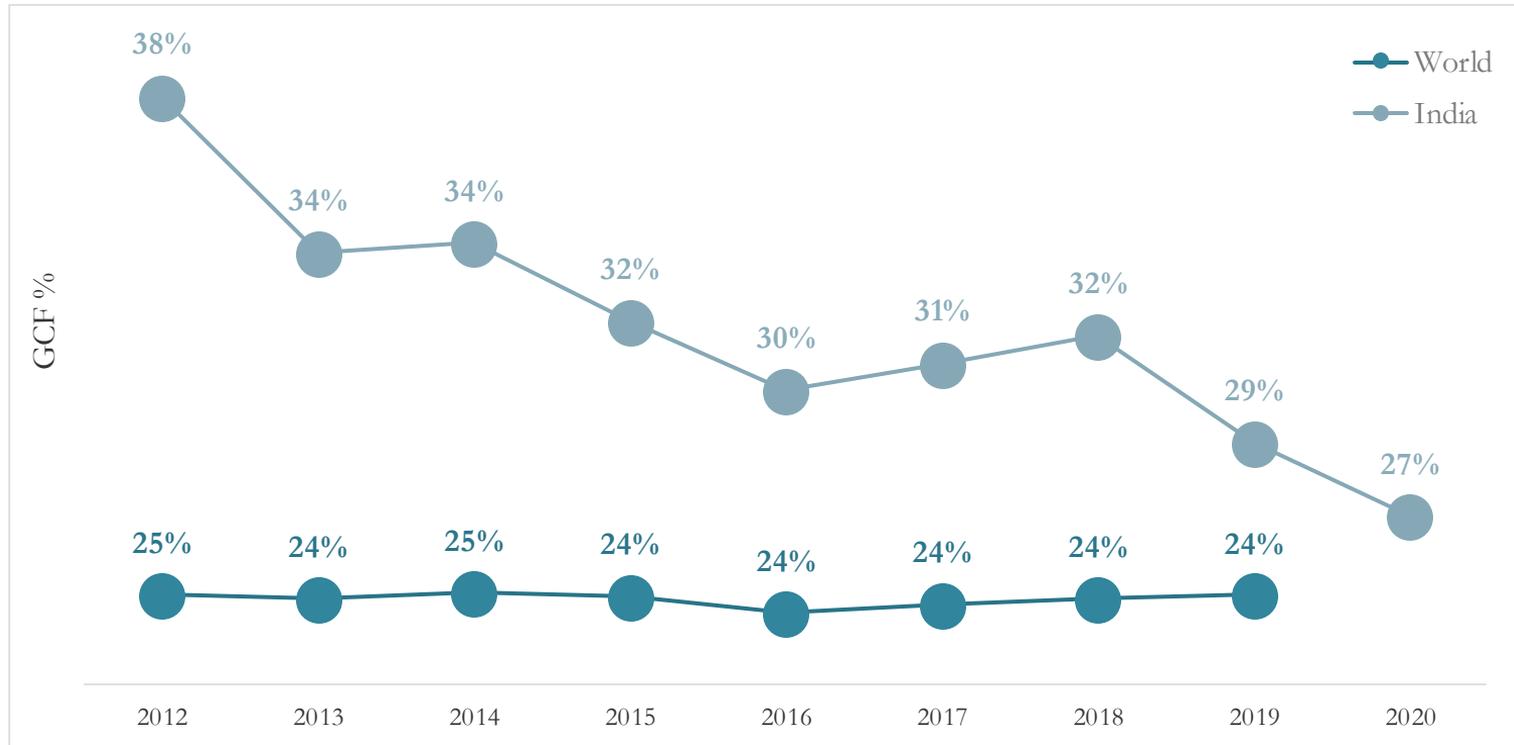
➤ Global players and growth driven by India, China, US and SE Asian Nations



GDP Growth



GCF - % of GDP at a glance



Source: World Bank National accounts data

Note: India GCF projection FY 2021 25.4; FY 2022 27.7

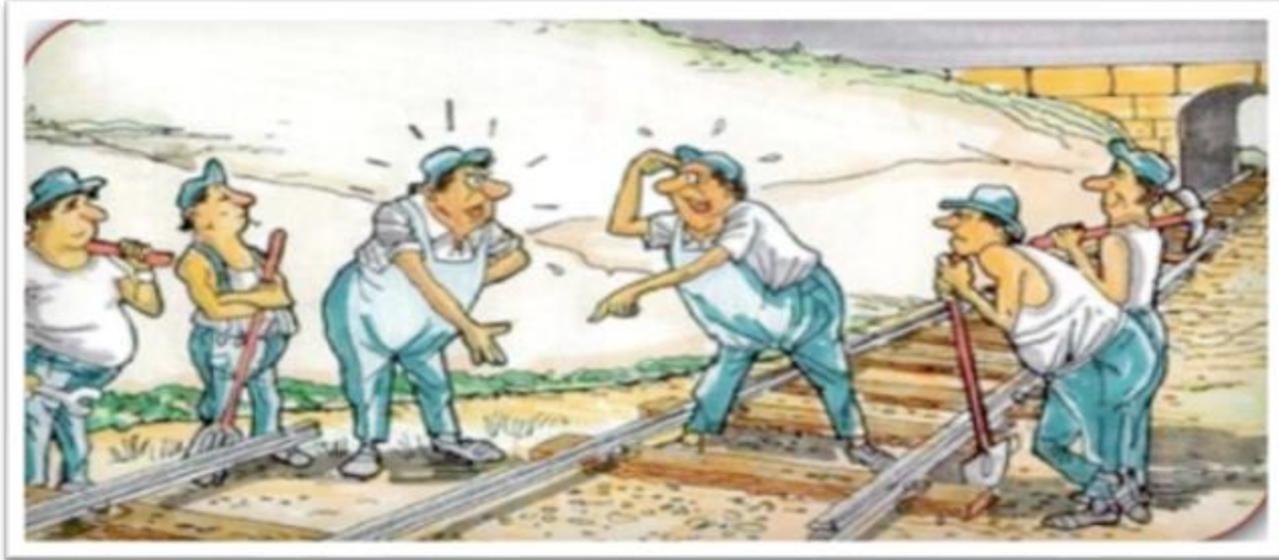
Brief activities summary



Mode of Study

- ✓ Discussions on EPC PM trends & deliberations
- ✓ Literature collections
- ✓ Formal EPC survey
- Analysis and discussions
- Way forward and implementation

Discussions on the EPC PM trends and deliberations



Literature collections

- NITI Aayog study on EPC: EPC agreement model for Civil works
- Demand gap analysis in terms of PM qualified/certified professional is being ascertained

Overview of Formal Survey

55

Responses

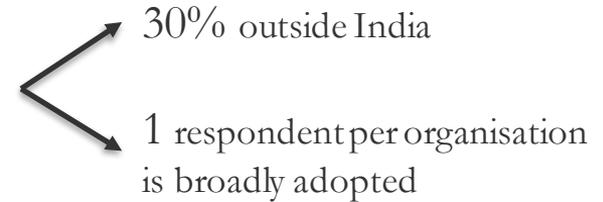
Experience profile of participants

22.3 years

Average of experience

3.83 Million

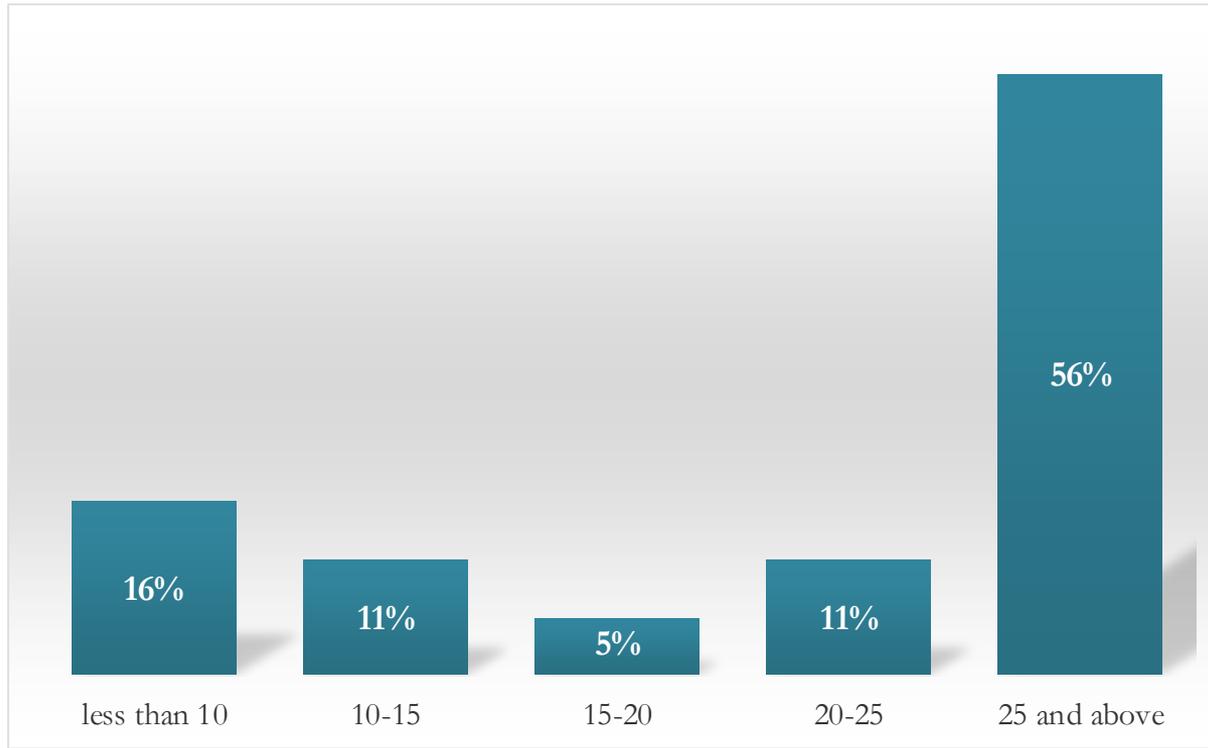
manhours of total experience of
55 professionals



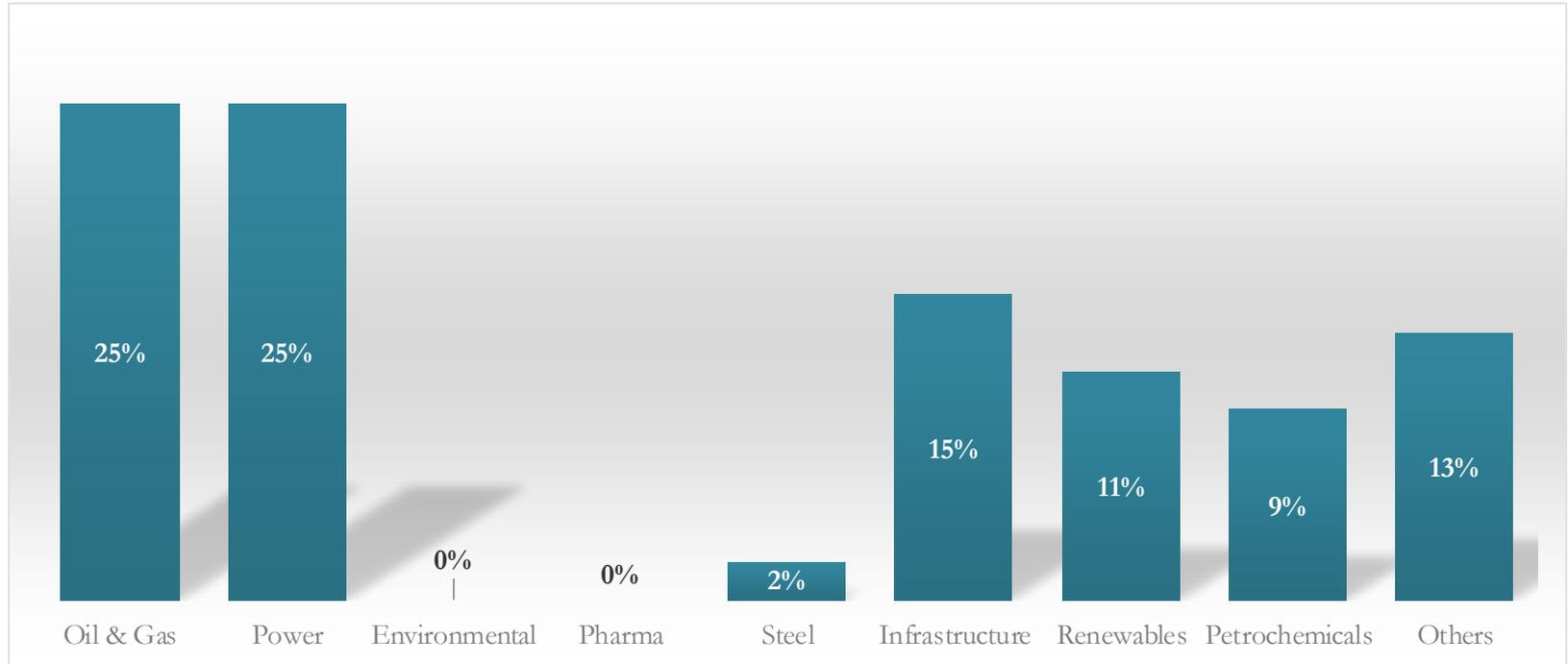


Detailed survey presentation

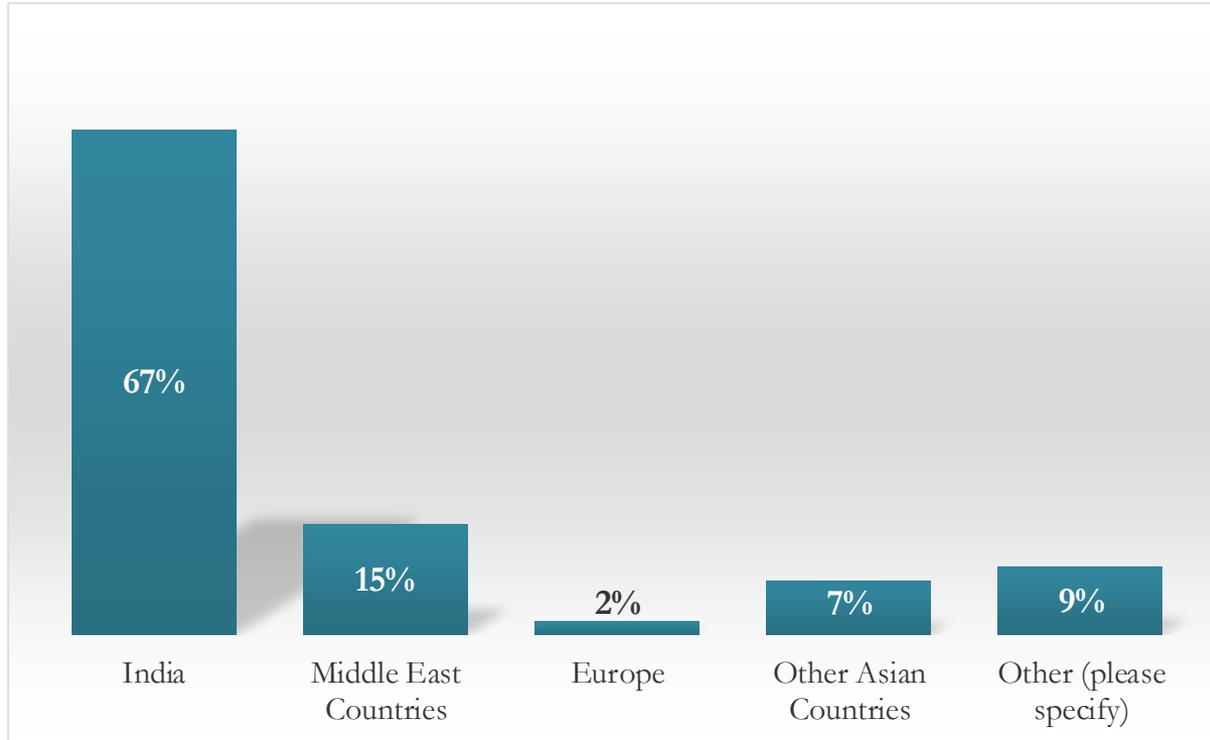
Q2: Please enter your number of years of experience in the EPC Sector



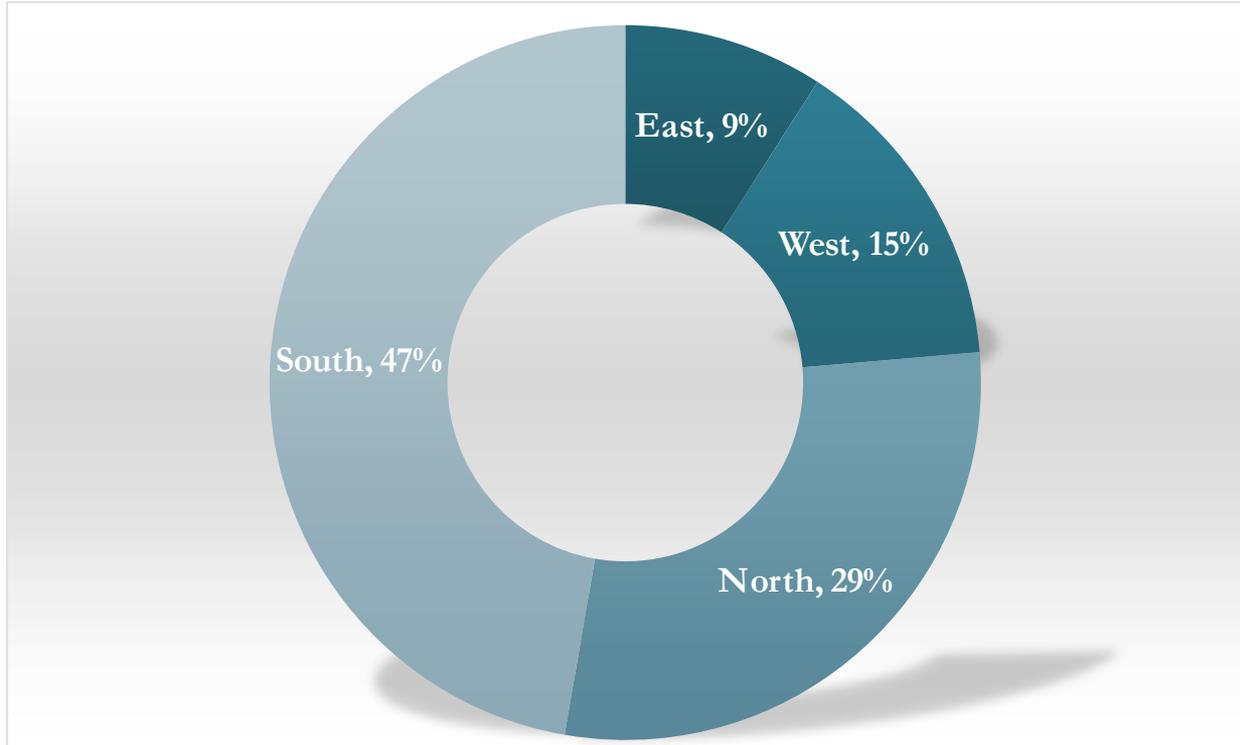
Q3: Which Industry have you worked in majorly?



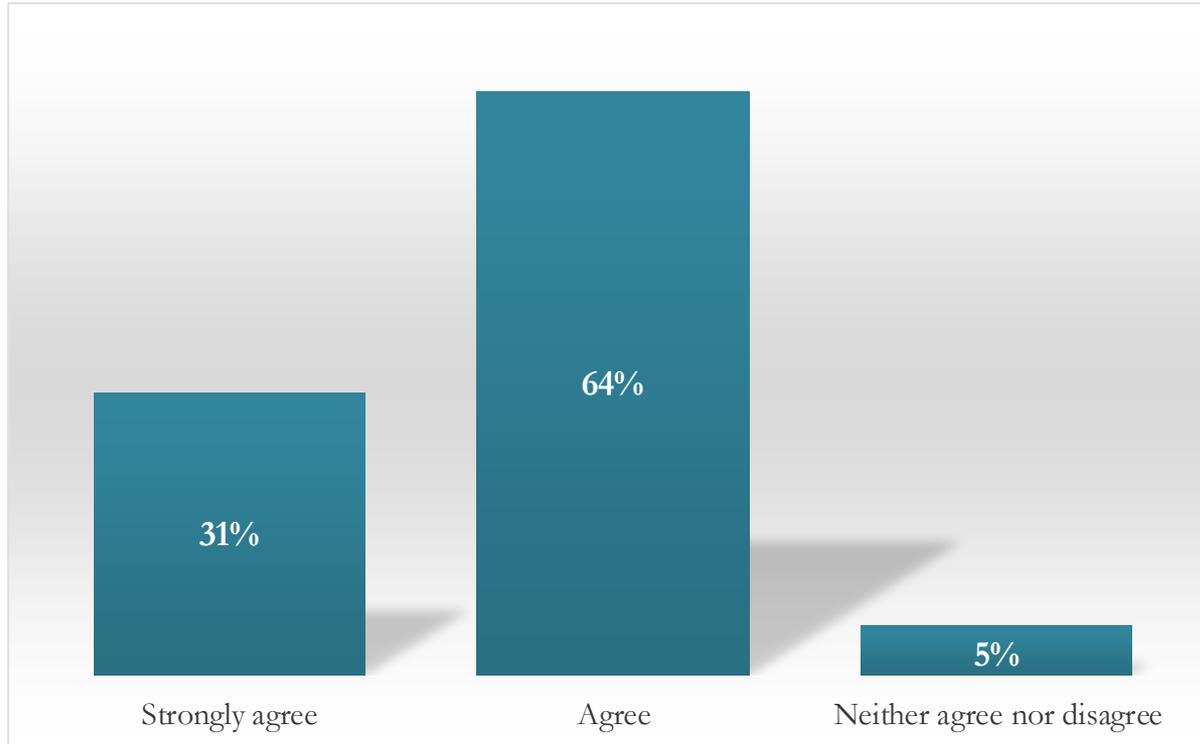
Q4: Which country is the project in? (Or majority of the projects)



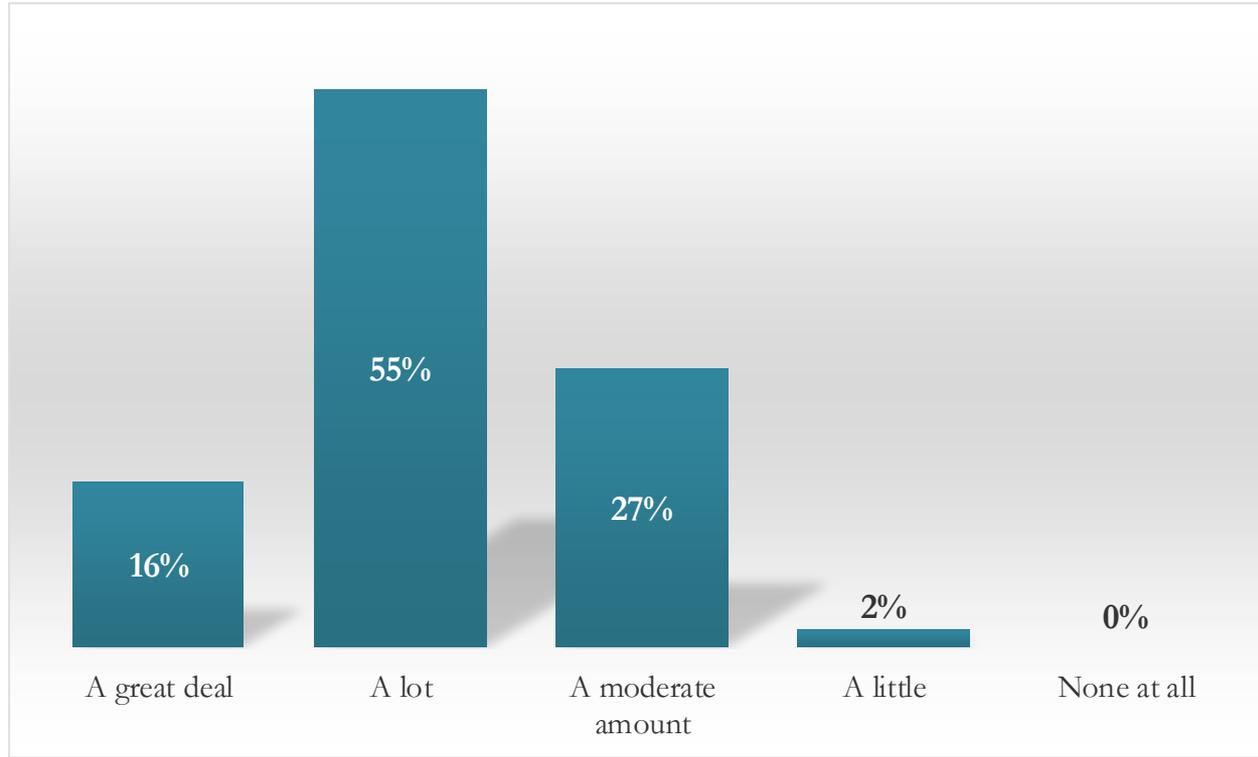
Q5: Which part of the country is the project location? (Or majority of the projects)



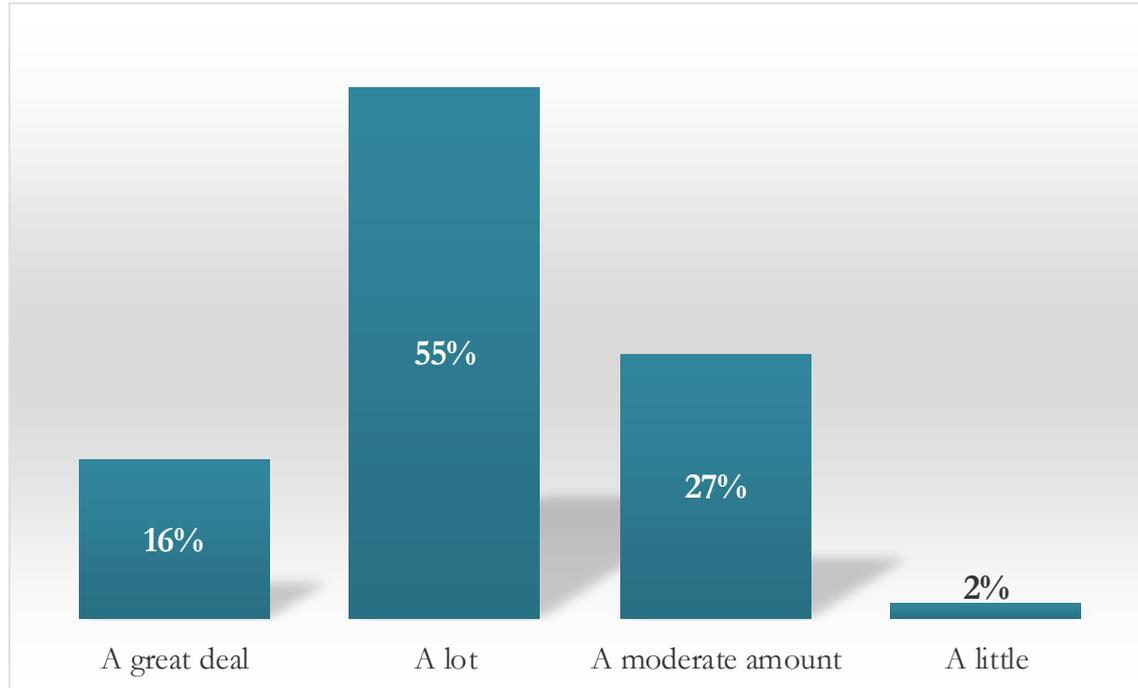
Q6: Do you feel EPC sector will see linear growth in the coming years?



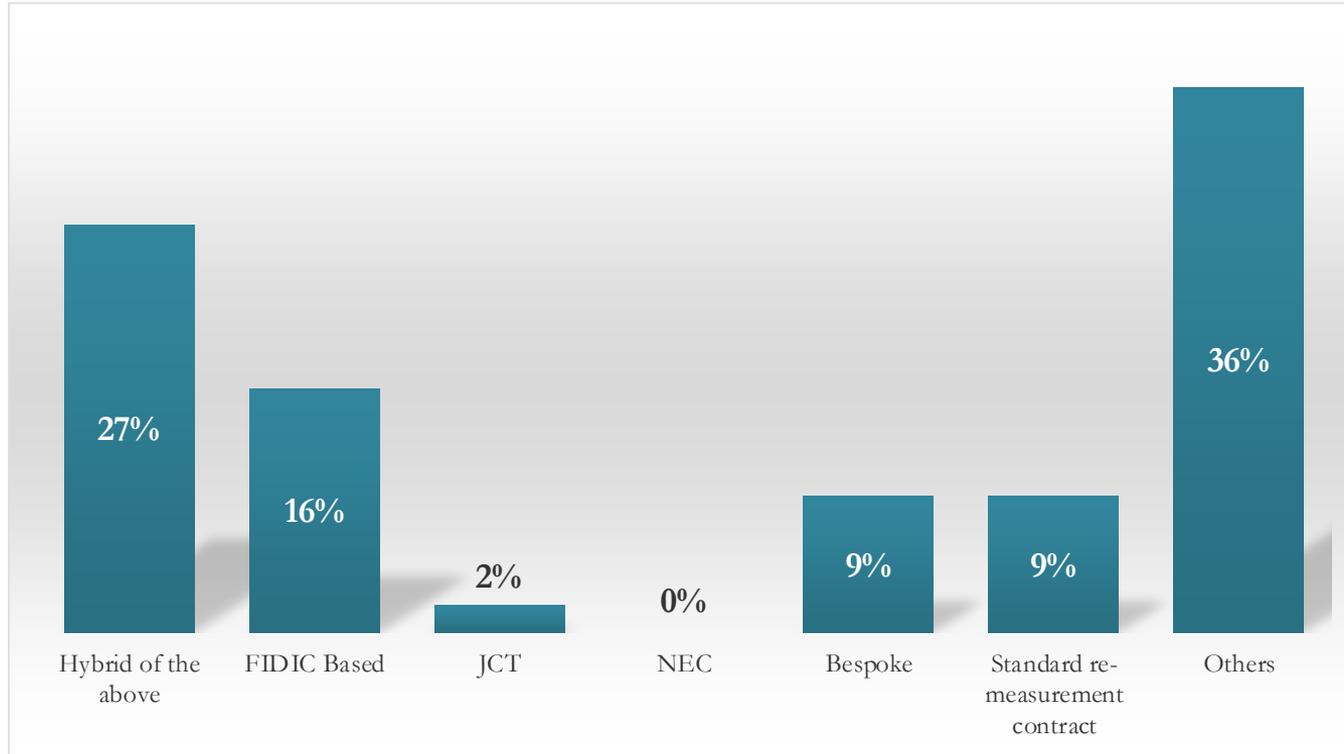
Q7: How do you feel the investments into Capital projects in India will turnout?



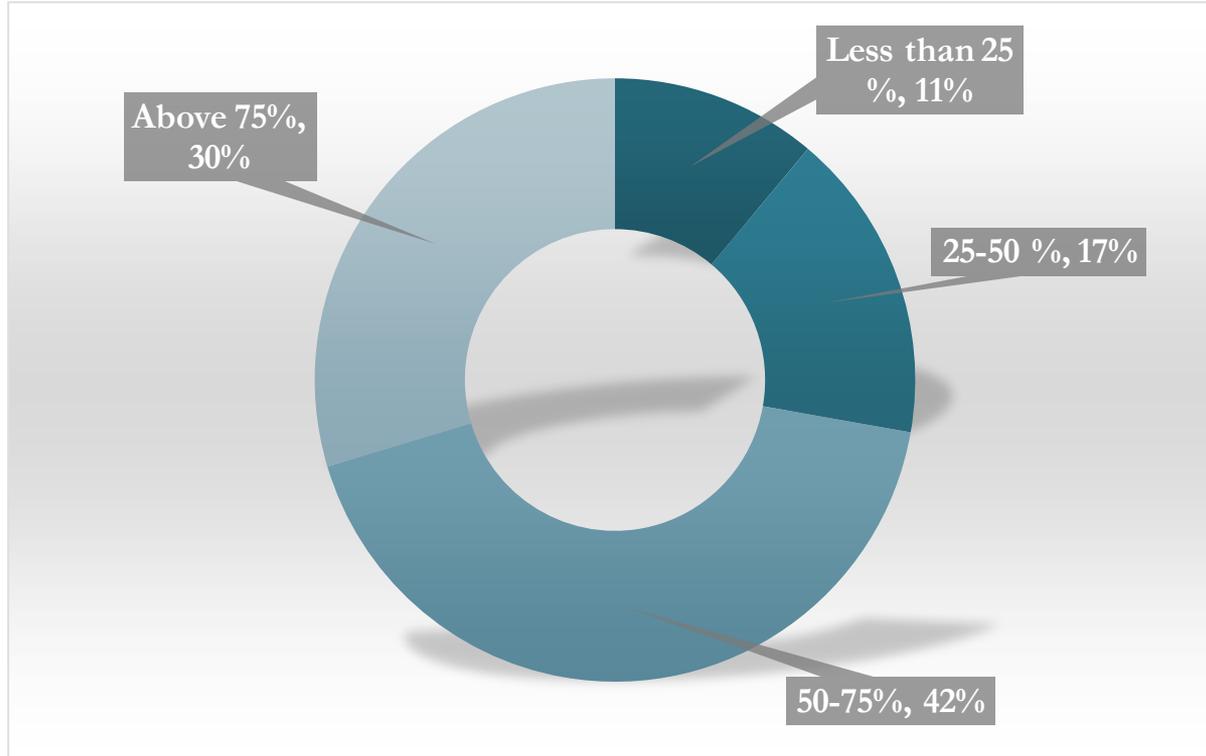
Q8: How do you feel the investments into Capital projects overseas will turnout?



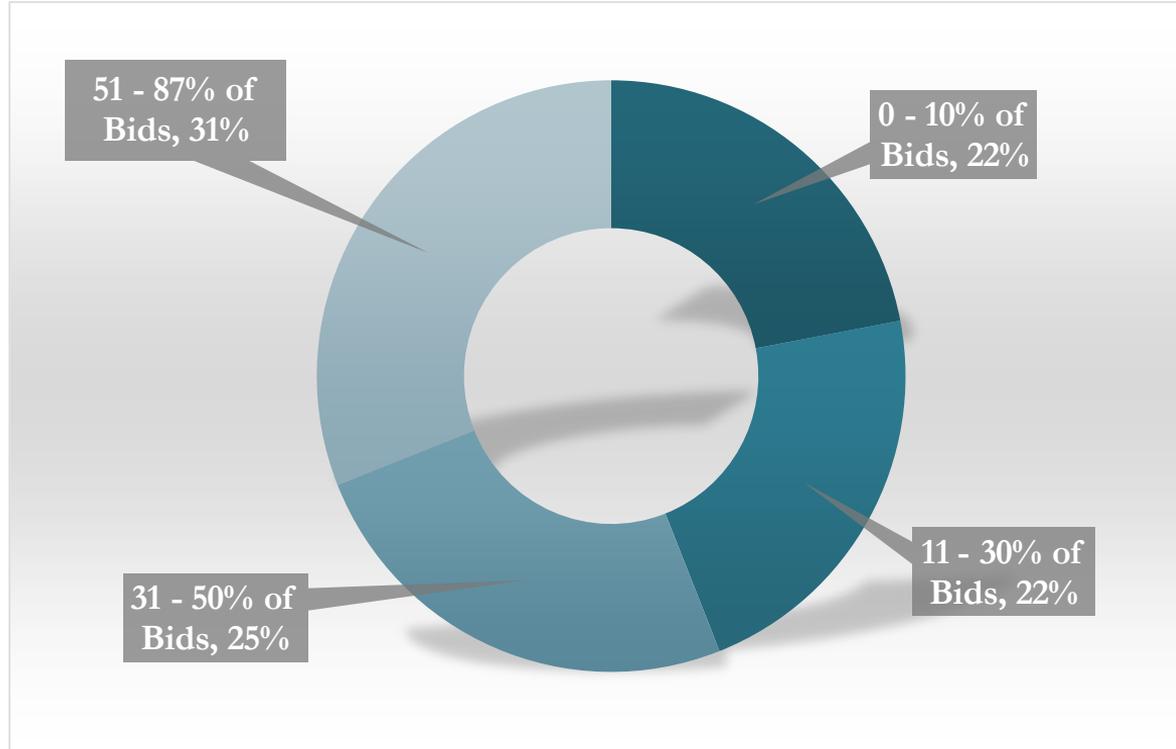
Q9: What type of contracts are executed by your organization?



Q10: What is your organization's capacity utilization over the past one year?



Q11: What percentage of bids does your organization win?



On Contract Value, Gross Profit and Assets Owned vs Assets Leased

Q12: What percentage of the contract value are subcontracted?

Mean: 37.3

Q13: What is your organization's gross profit percentage?

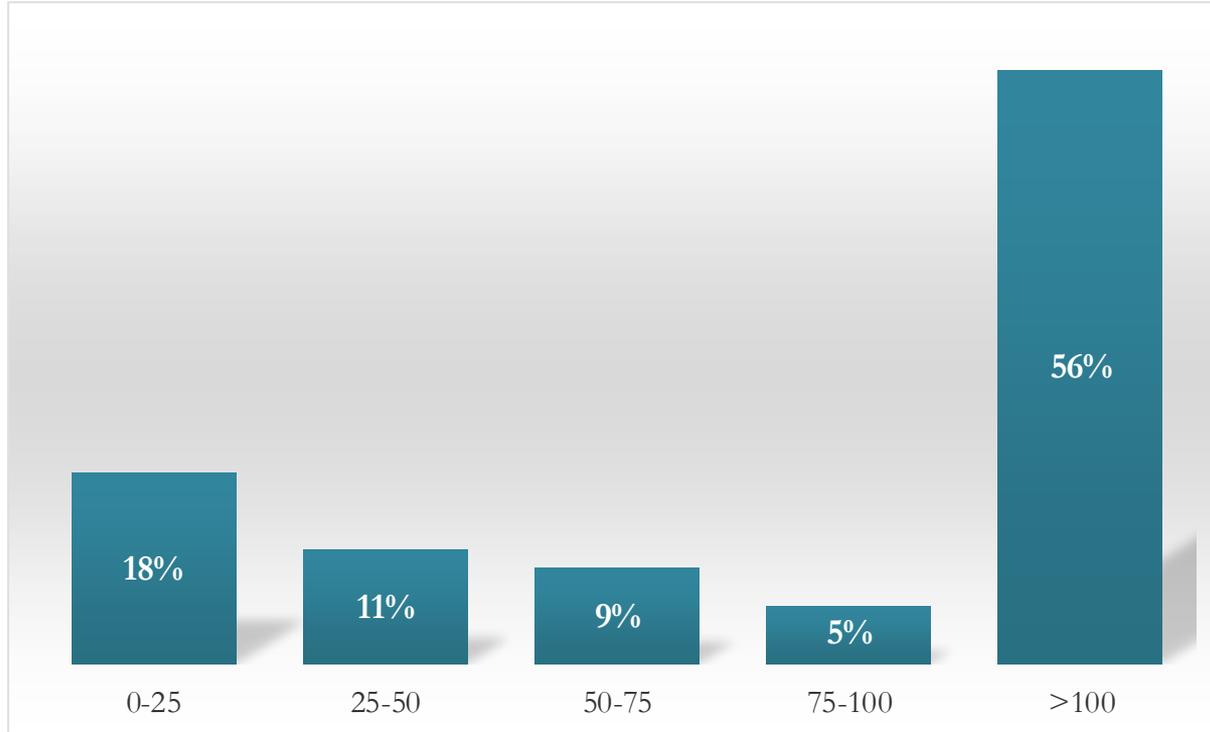
Mean: 18.7

Levelled margin: 13.10%

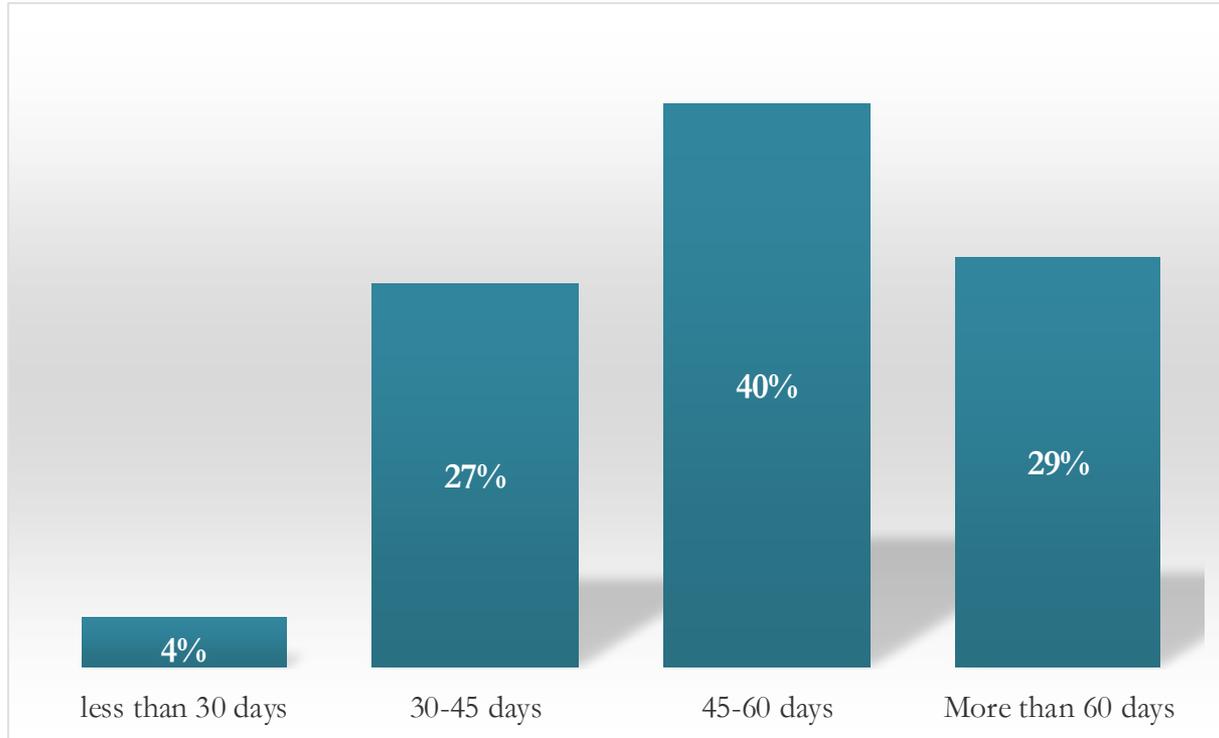
Q15: What percentage of equipment does your organization own versus lease?

Mean: 41.6

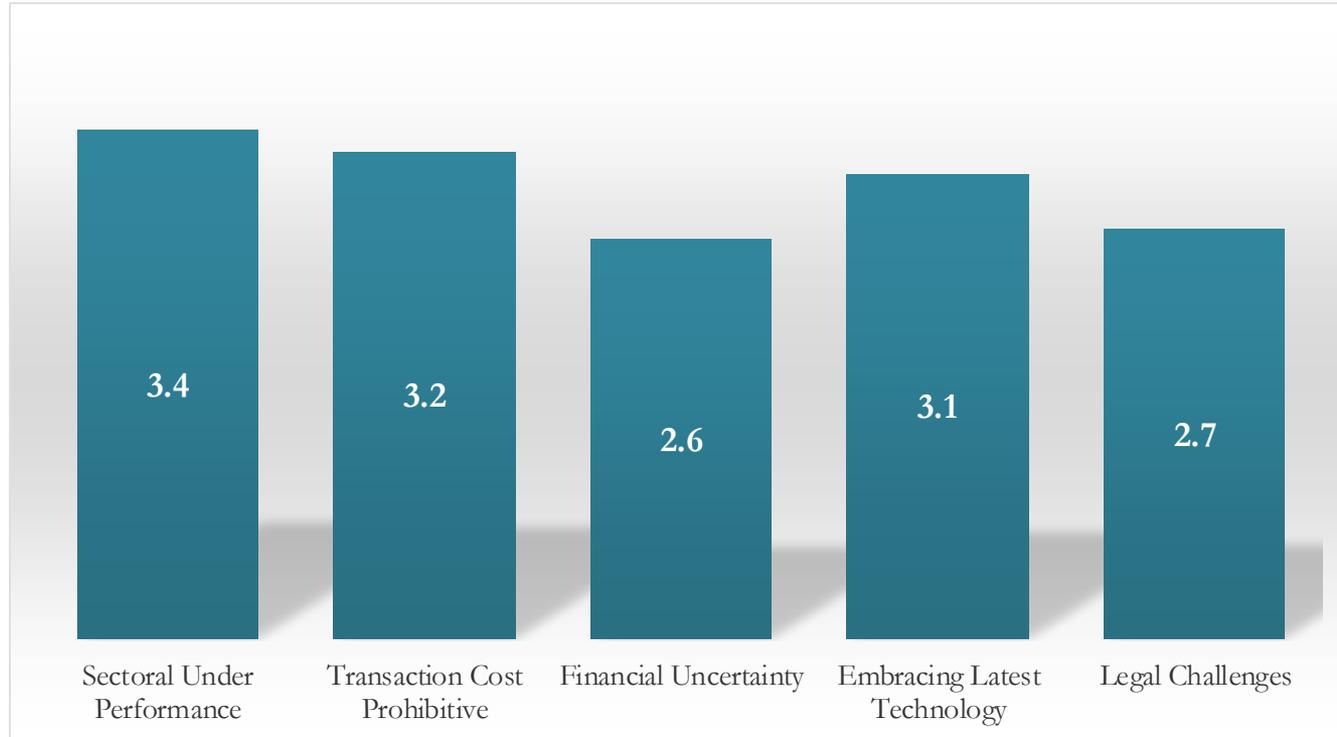
Q14: On an average how many full time employees do you have on staff?



Q16: What is the age of your organization's receivables from its customers?



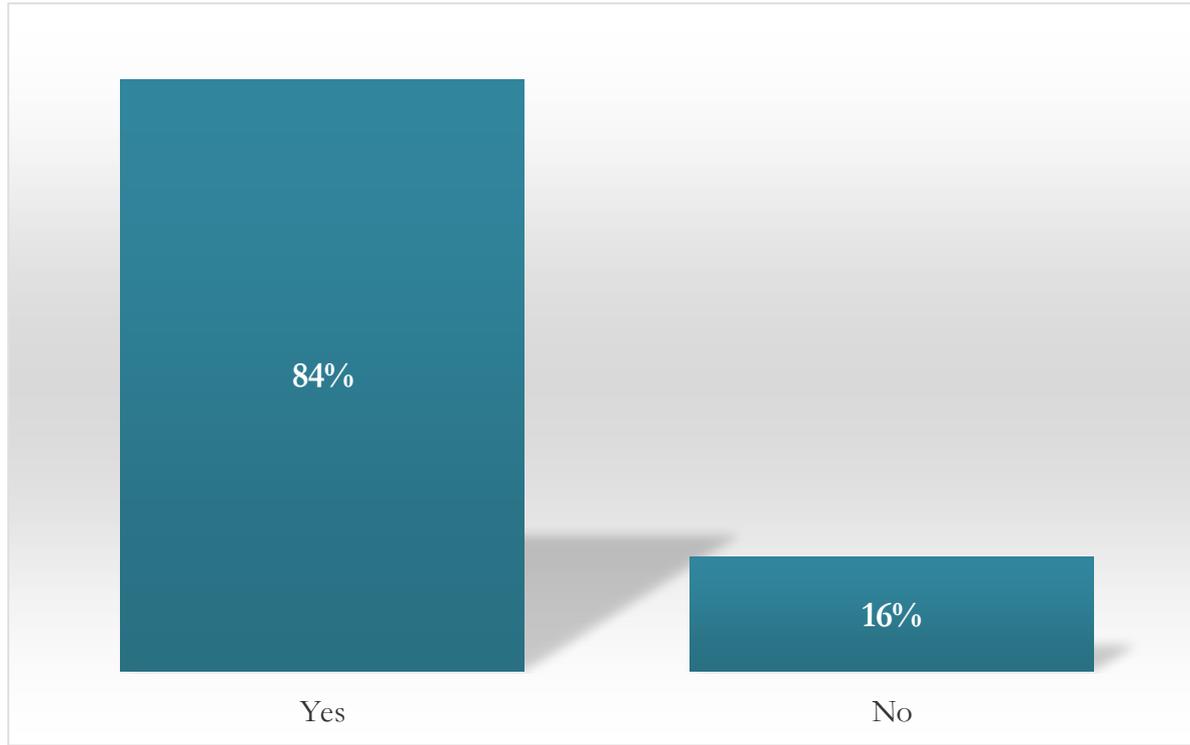
Q17: How do you rate the following challenges while handling an EPC project, on a scale of 1 to 5? (with 5 as most challenging and 1 as least challenging)



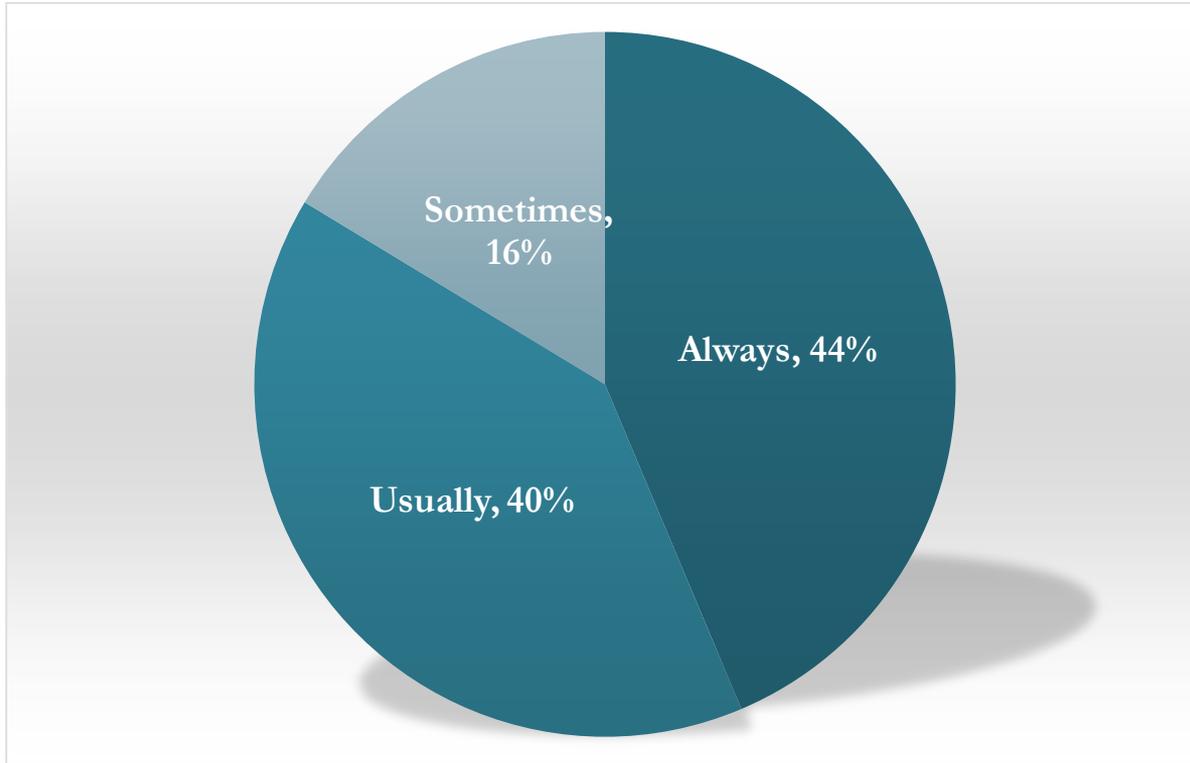
Q17: How do you rate the following challenges while handling an EPC project?

	1 - Least Challenging	2	3	4	5 - Most Challenging	Score
Sectoral Under Performance	33%	24%	11%	13%	20%	3.4
Transaction Cost Prohibitive	18%	24%	27%	24%	7%	3.2
Financial Uncertainty	9%	18%	24%	25%	24%	2.6
Embracing Latest Technology	22%	24%	16%	16%	22%	3.1
Legal Challenges	18%	11%	22%	22%	27%	2.7

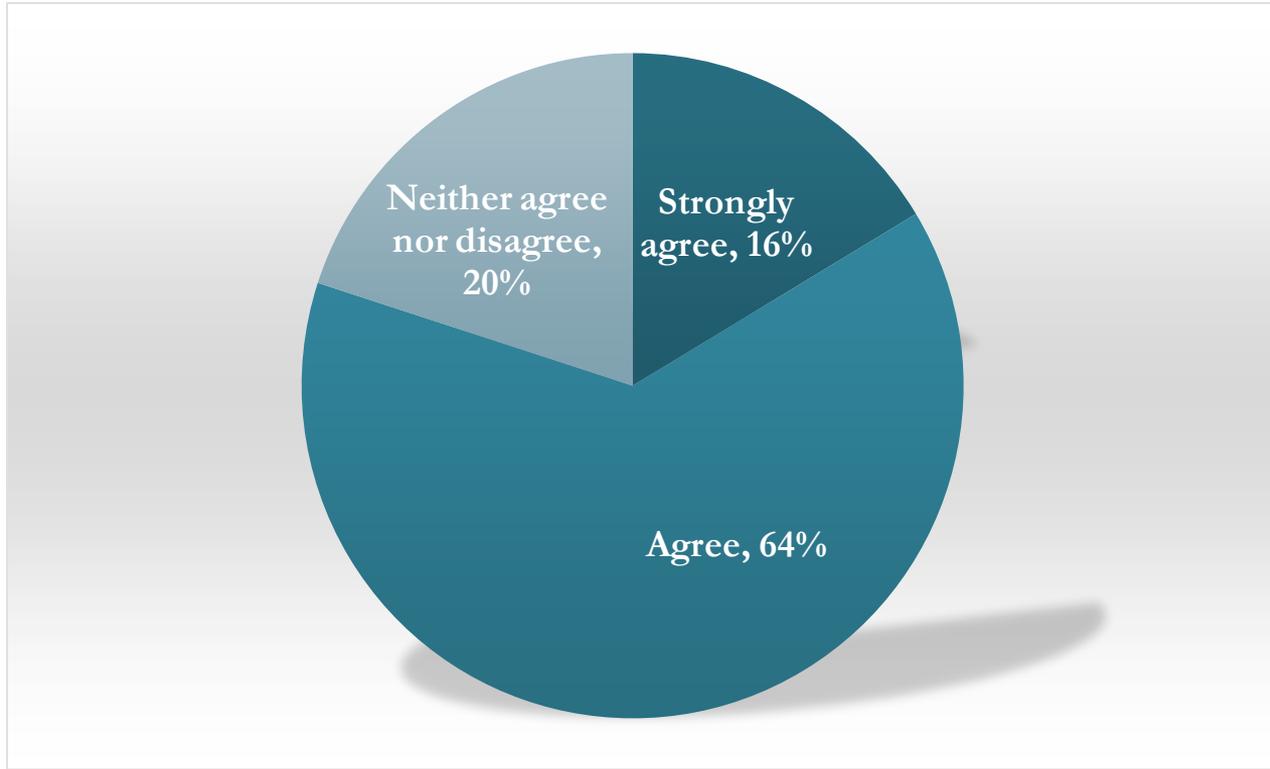
Q18: Do you feel that lack of productivity in the EPC, esp in construction, is a concern?



Q19: Do you believe local issues are significant in the delivery of EPC projects?

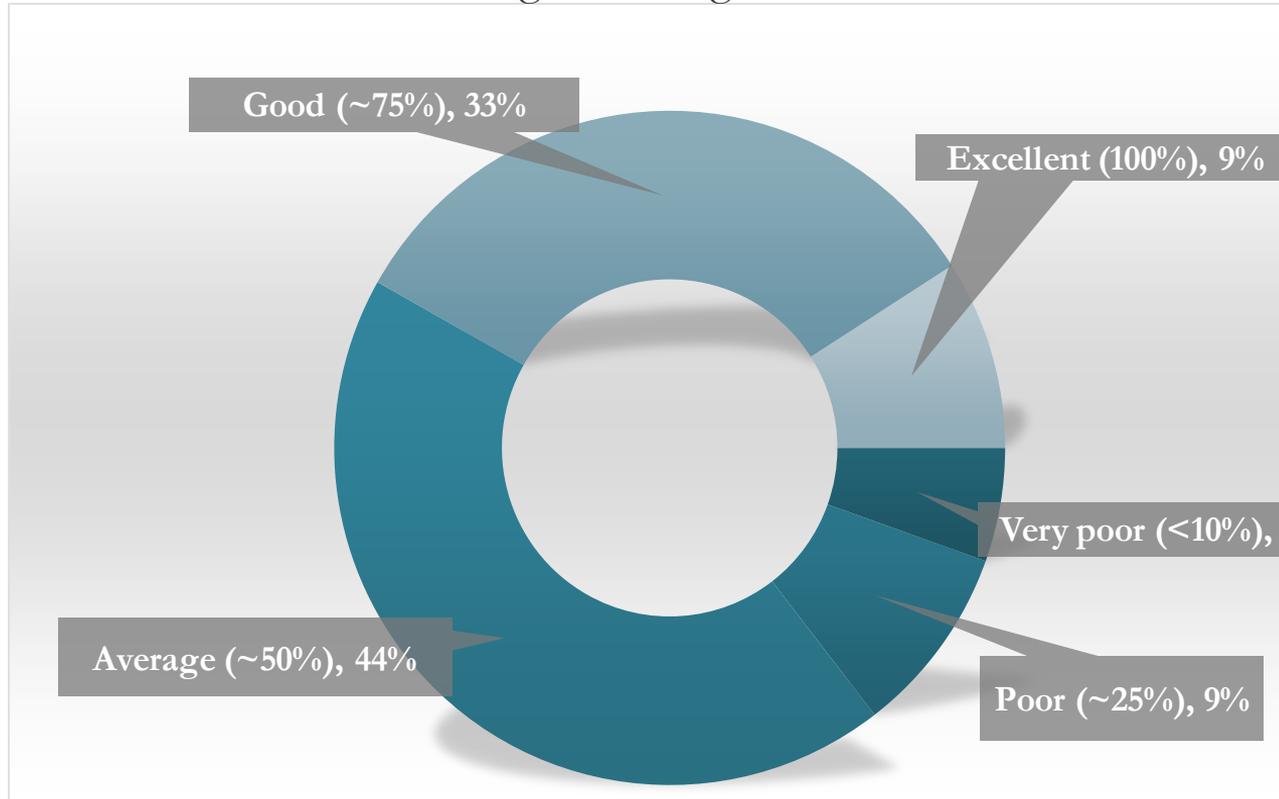


Q20: The Bottom Quartile Profit Margins are thin and unattractive in EPC projects. How do you feel about this statement?

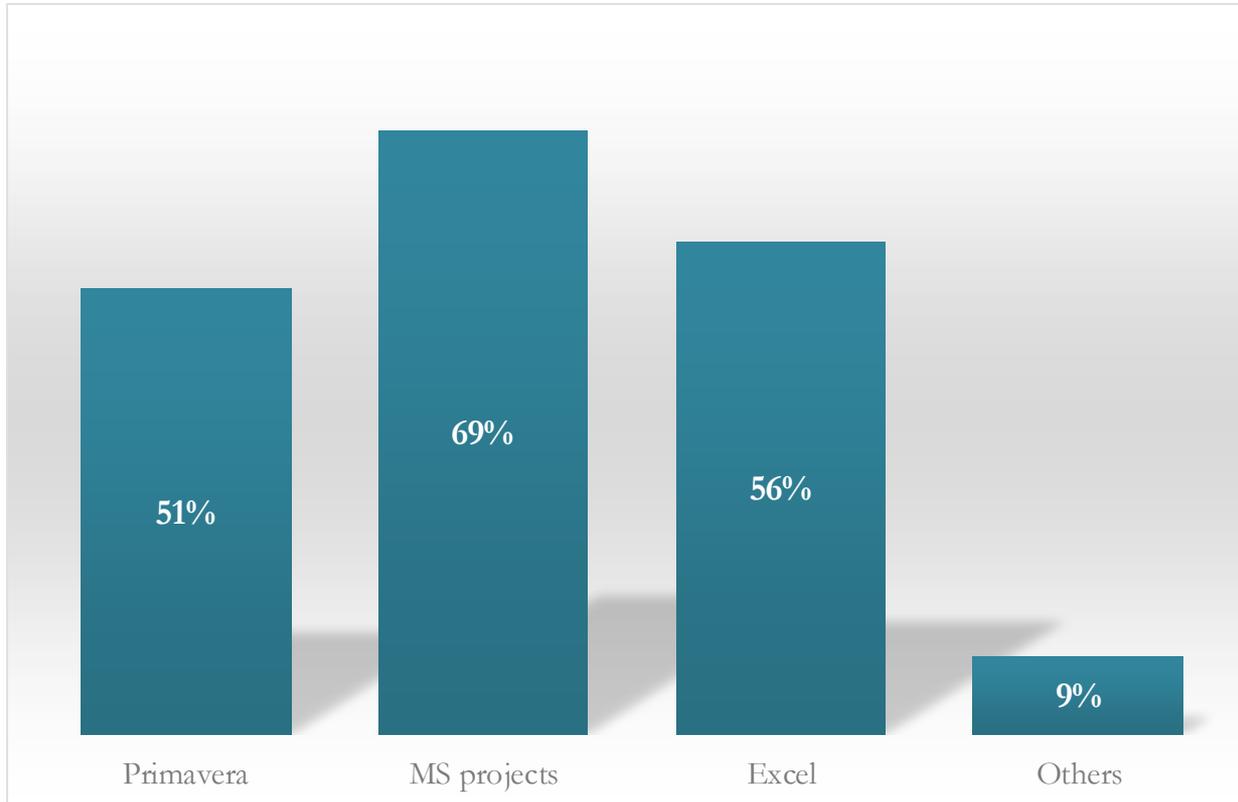


Q21: How do you feel digitalization adoption in India/Overseas is in the EPC sector & percentage of organization that are moving ahead in the maturity curve?

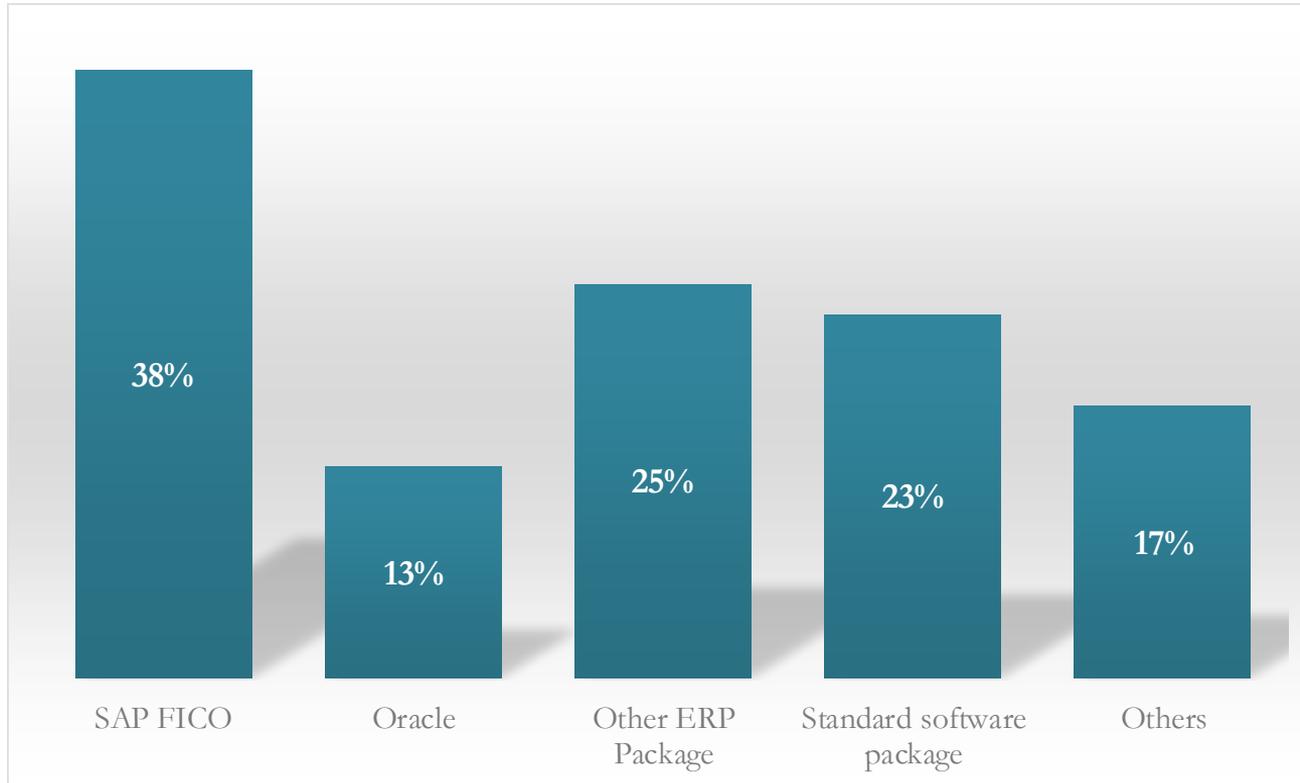
Weighted margin: 3.31



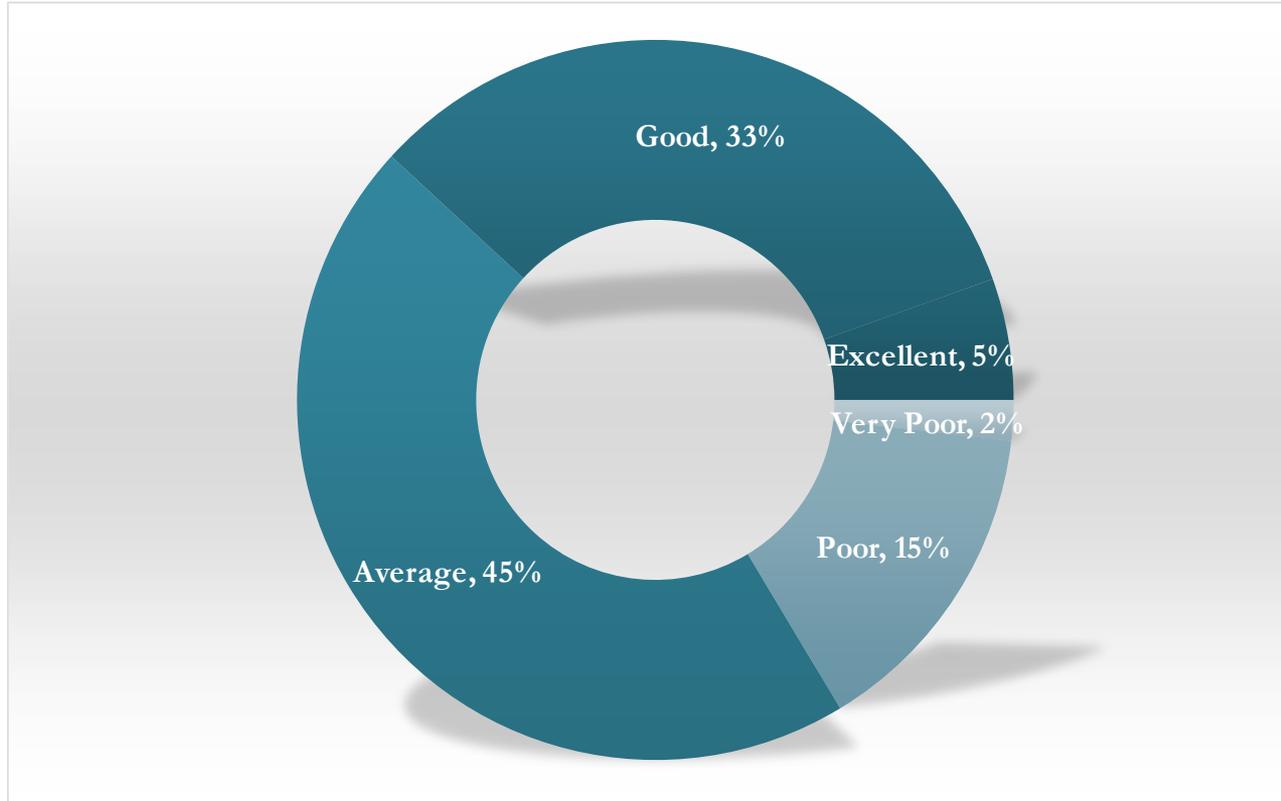
Q22: What are the software tools used for project planning in your organization?



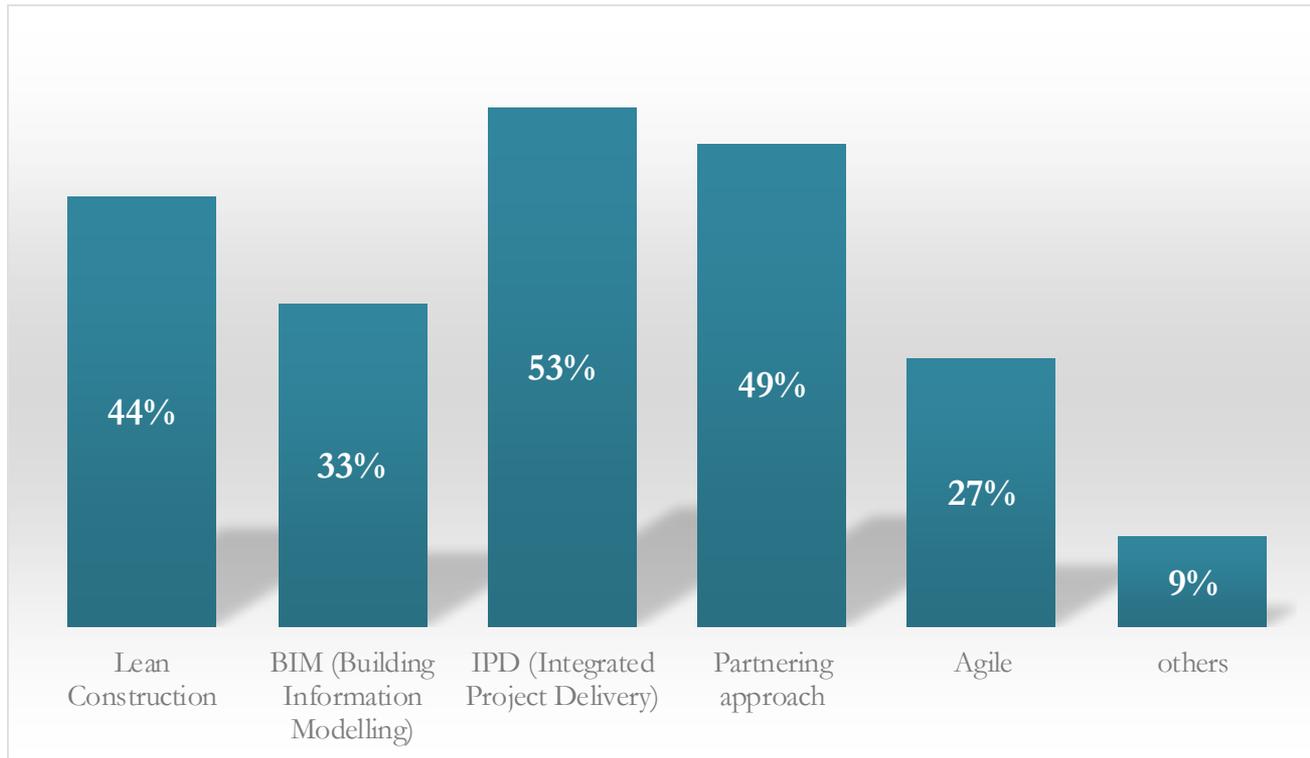
Q24: What are the software tools used for Finance control in your Org?



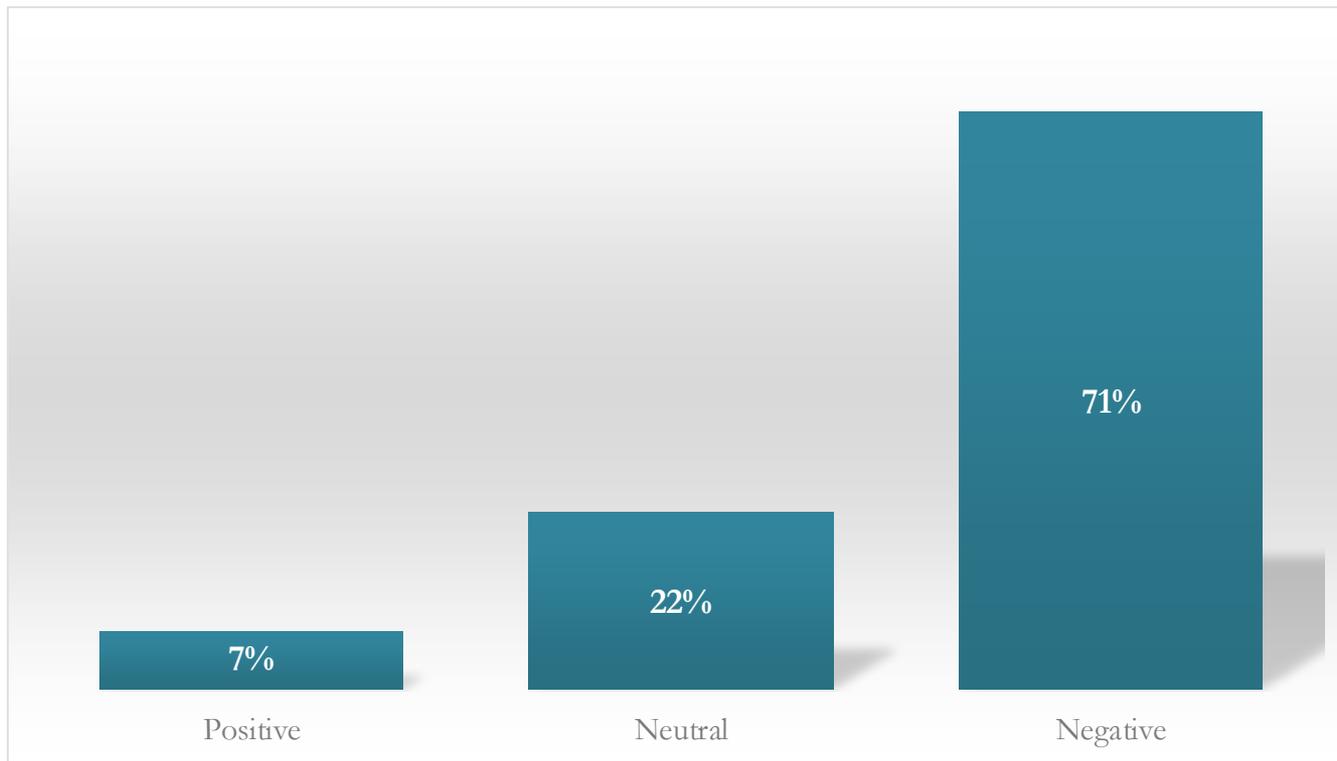
Q25: How do you feel the Risk Management framework/implementation in EPC projects?



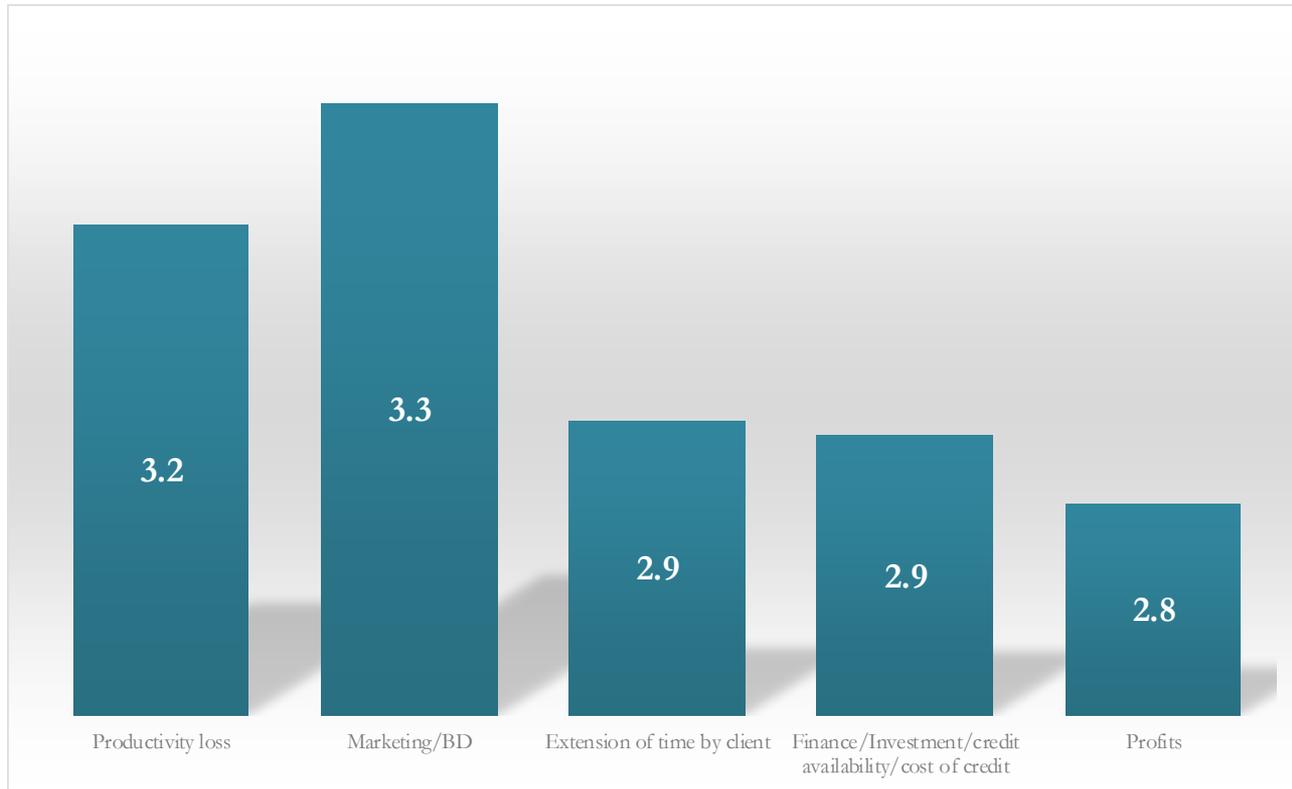
Q26: What are all the modern approaches that can be implemented for effective delivery of projects?



Q27: Pl rate the impact of coronavirus pandemic on EPC/Construction industry performance.



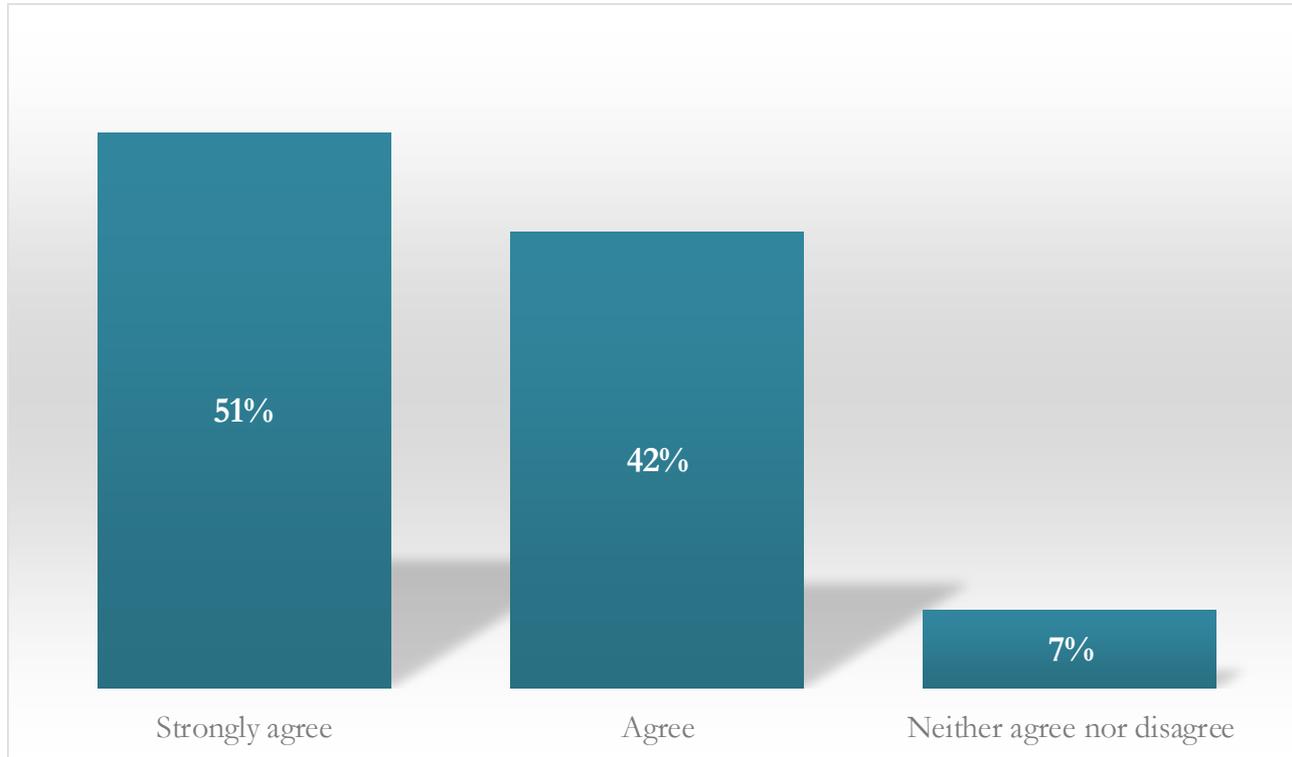
Q28: What are the biggest challenges that you currently face in the business due to Covid19? (rating of 1 to 5 , with 1 being most and 5 being least)



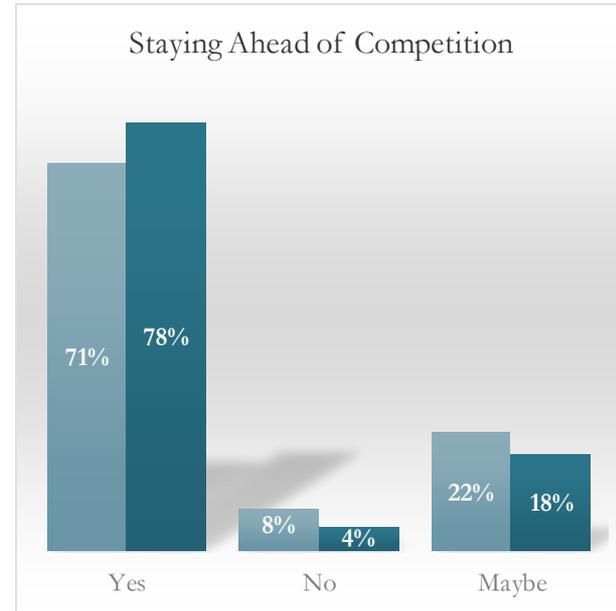
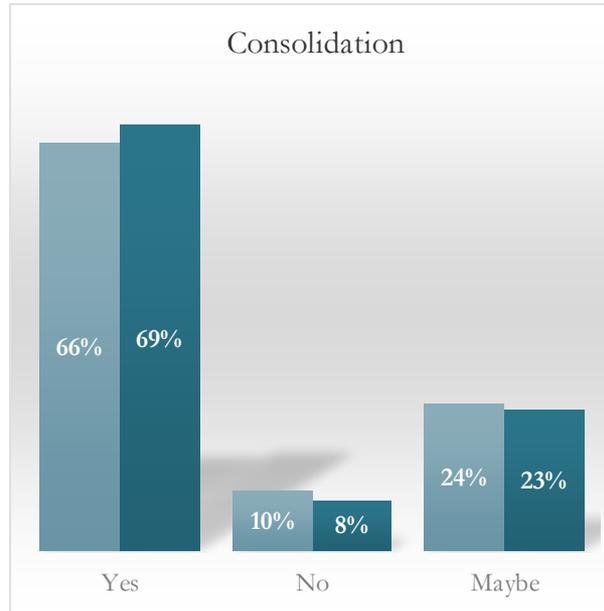
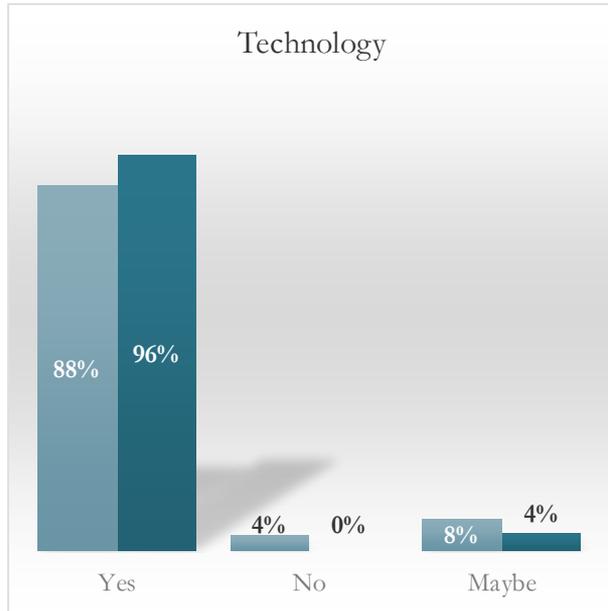
Q28: What are the biggest challenges that you currently face in the business due to Covid19?

	1 - Most Challenging	2	3	4	5 - Least Challenging	Score
Productivity loss	29%	15%	20%	15%	22%	3.2
Marketing/BD	24%	29%	18%	13%	16%	3.3
Extension of time by client	15%	18%	31%	15%	22%	2.9
Finance/Investment/credit availability/cost of credit	20%	15%	15%	35%	16%	2.9
Profits	13%	24%	16%	24%	24%	2.8

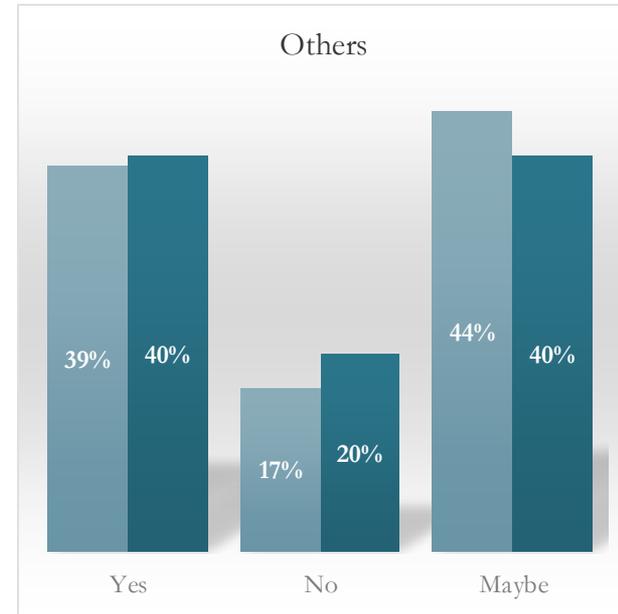
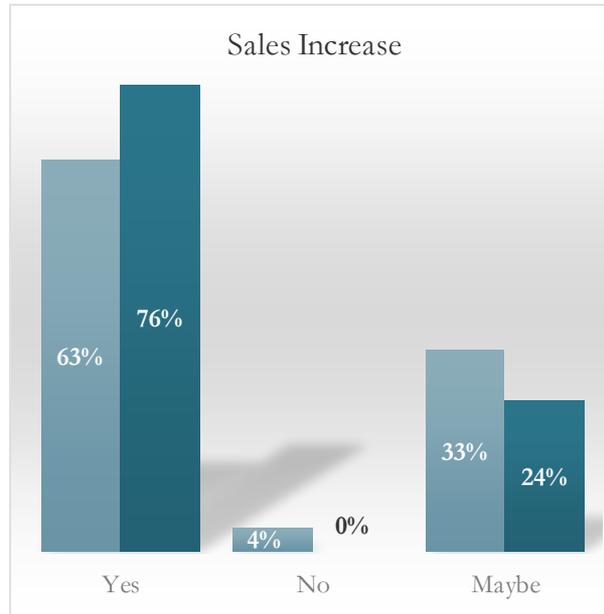
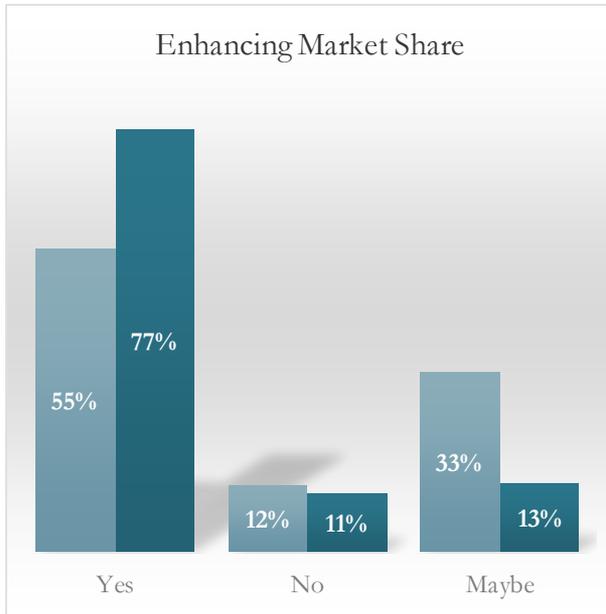
Q29: In this pandemic situation, Business Continuity Plan (BCP) is important and do you think good project management practices help/facilitate BCP?



Q30: What are major driving forces that will define EPC companies present growth & future aspirations? (1/2)



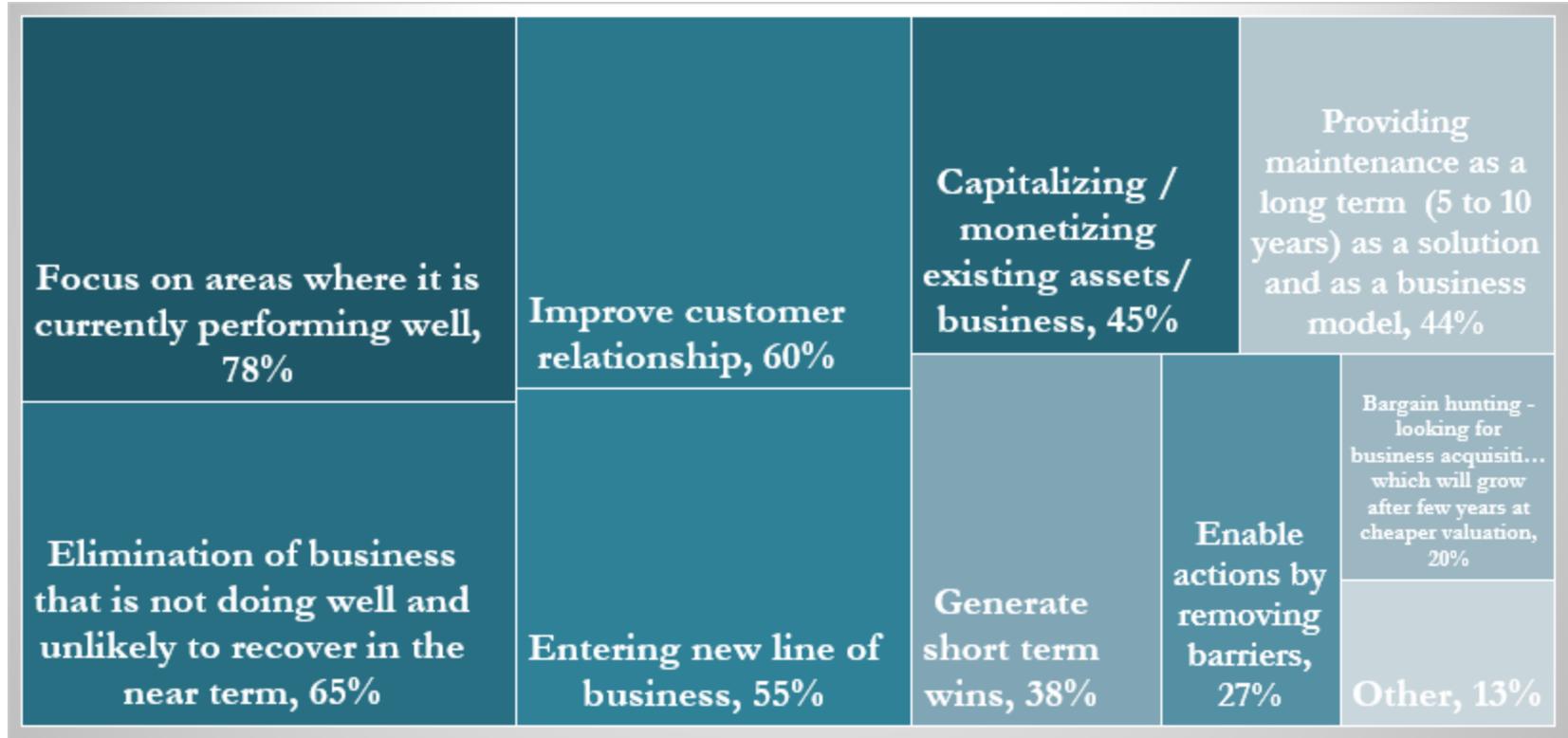
Q30: What are major driving forces that will define EPC companies present growth & future aspirations? (2/2)



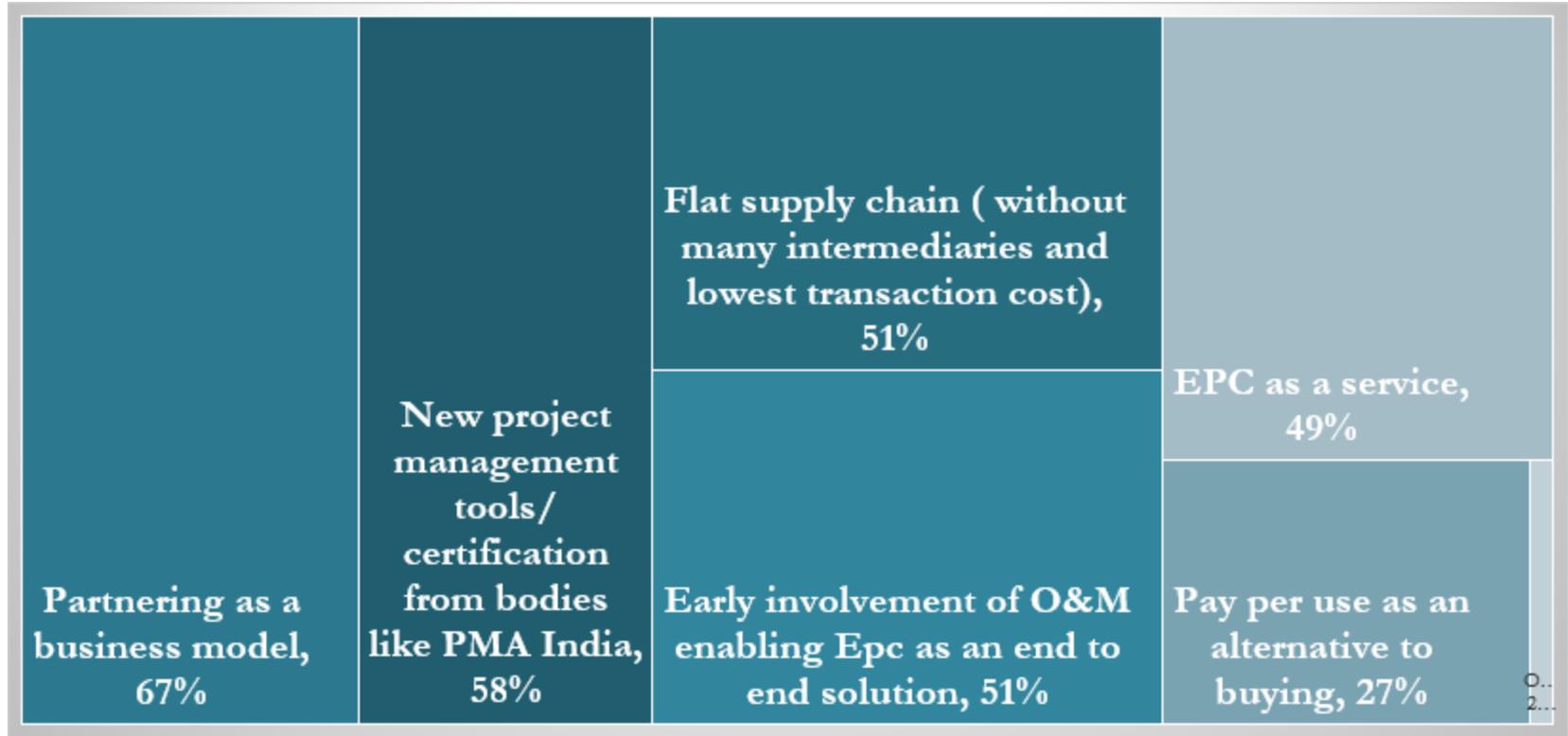
Q30: What are major driving forces that will define EPC companies present growth & future aspirations?

	Now	In 2 years	Now	In 2 years	Now	In 2 years
	Yes		No		Maybe	
Technology	88%	96%	4%	0%	8%	4%
Consolidation	66%	69%	10%	8%	24%	23%
Competition	71%	78%	8%	4%	22%	18%
Inc Market Share	55%	77%	12%	11%	33%	13%
Sales Inc	63%	76%	4%	0%	33%	24%
Others	39%	40%	17%	20%	44%	40%

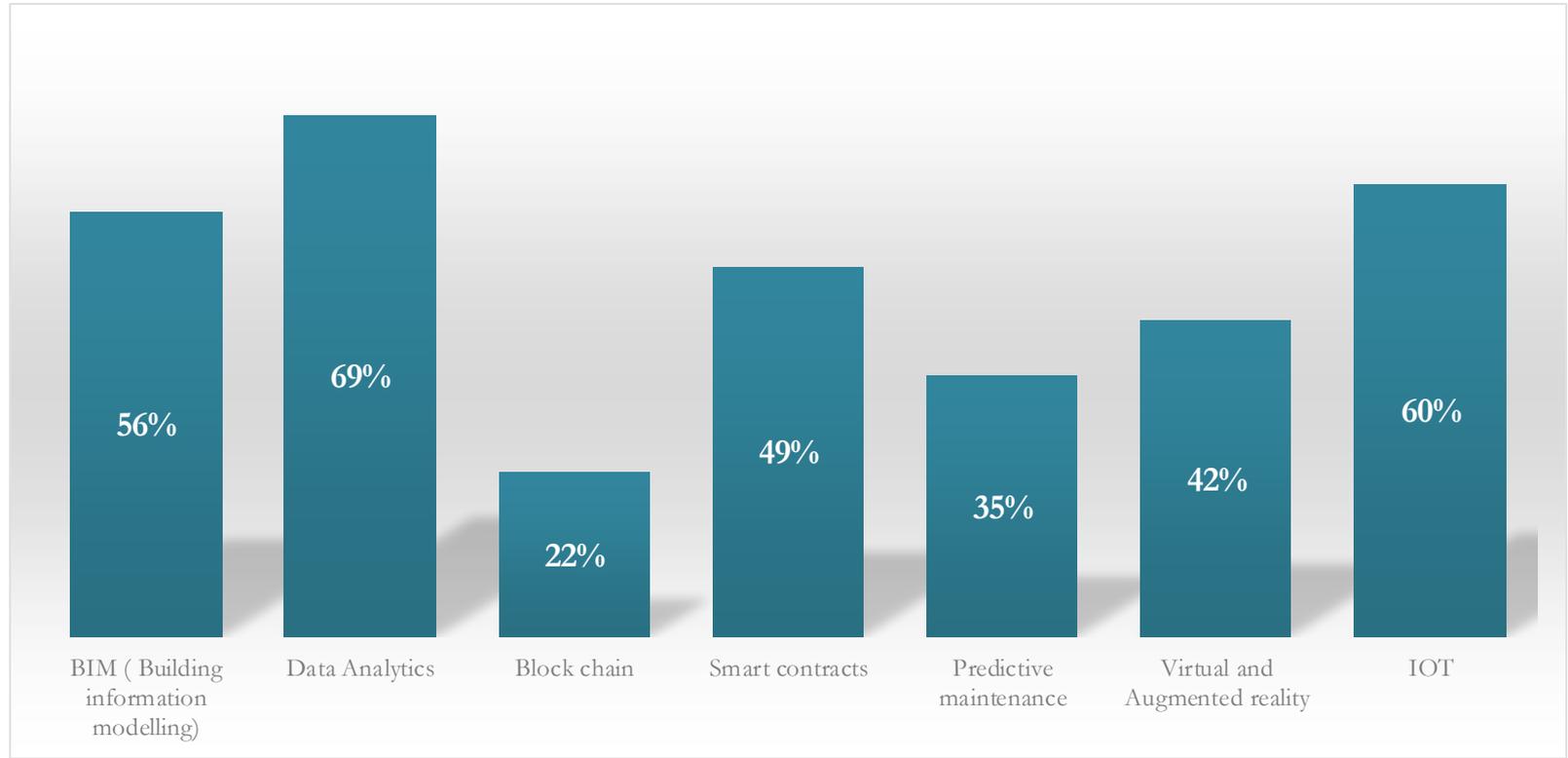
Q31: What are some of the EPC Strategies and Business Models for effective performance of your EPC business?



Q32: What are some of the EPC Strategies for effective delivery of projects ?



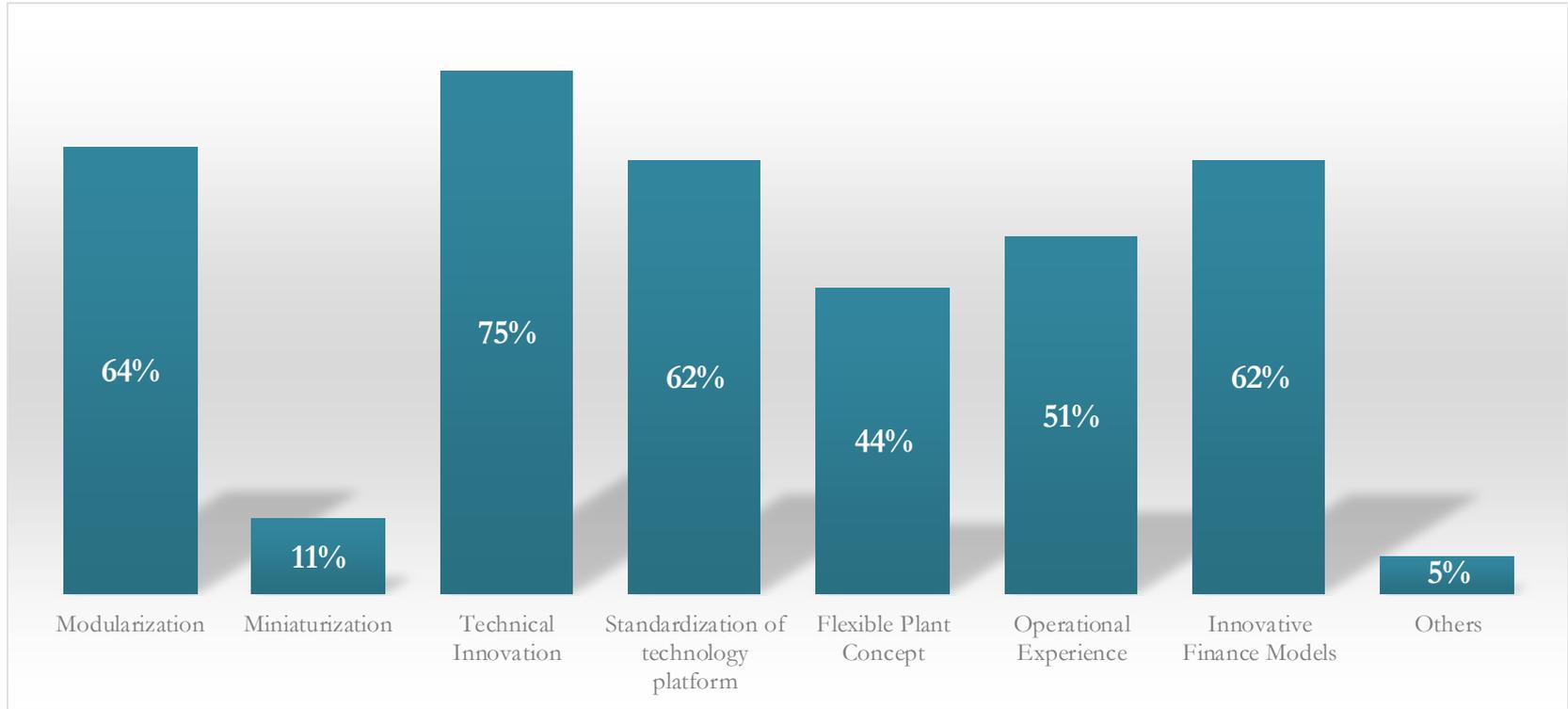
Q33: What are the opportunities and areas for EPC Digitalization and Automation?



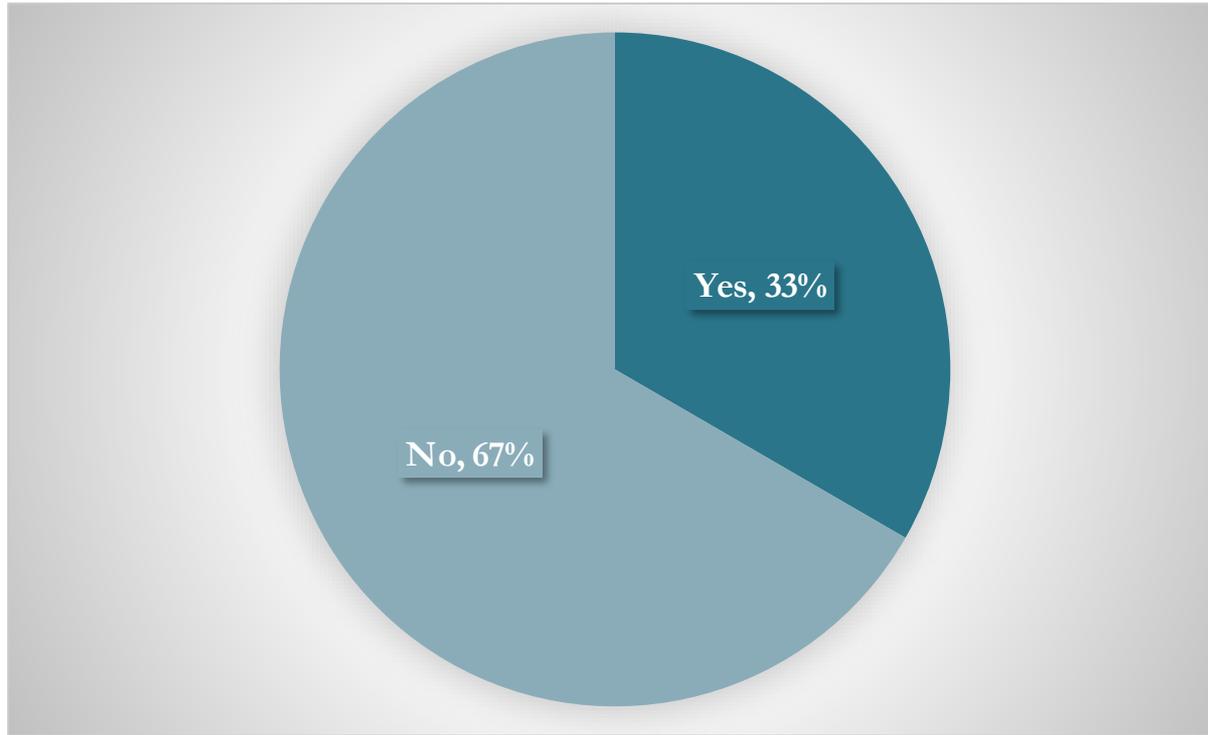
Q34: What are the EPC approaches w.r.t human factors/human resources development & organizational arrangements in the new era of EPC Project Management?



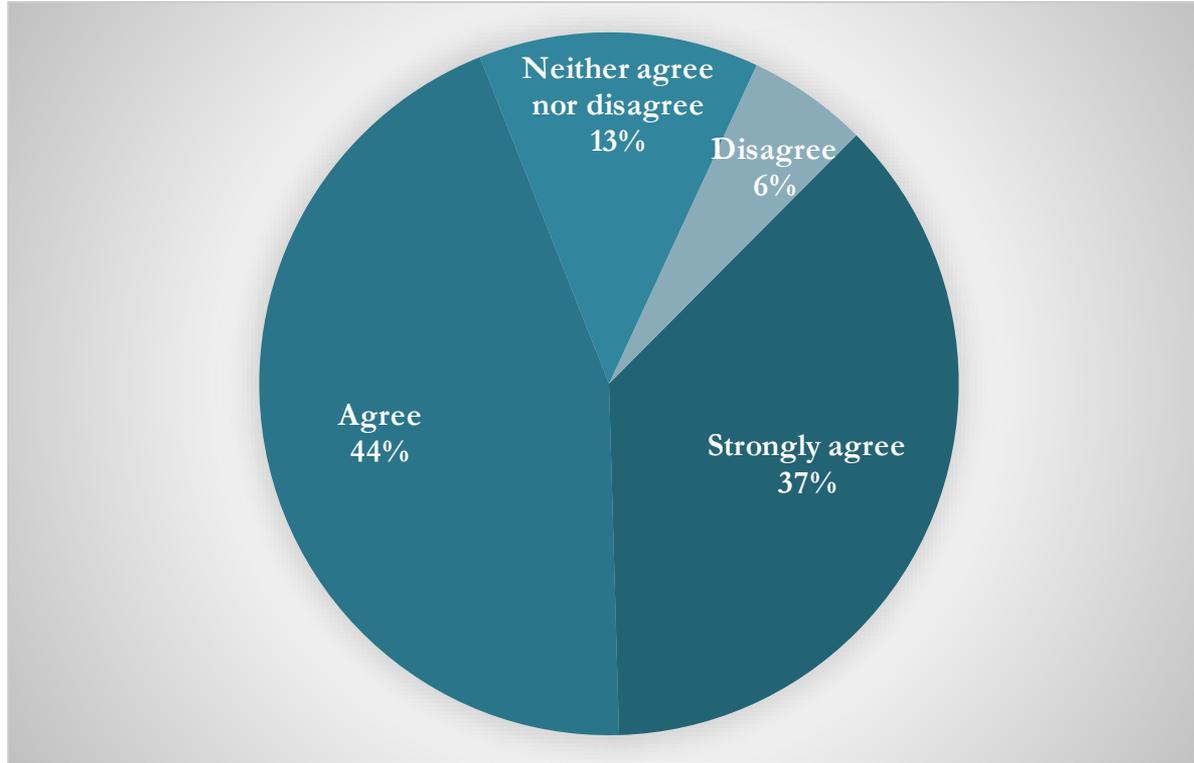
Q35: The current trend demands a set of focused competences for EPC projects. Please identify such core competences for running EPC Projects.



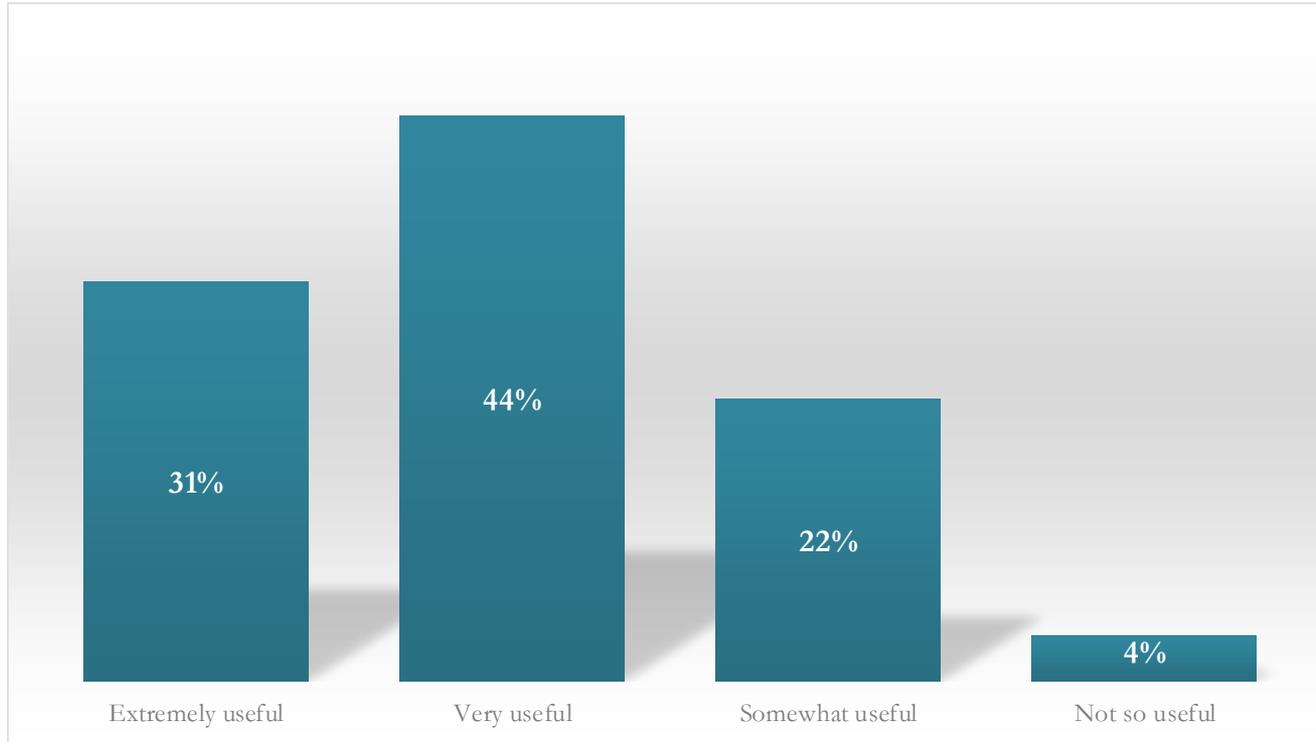
Q37: Do you have any innovative use cases or best practices that may help to improve the performance of the EPC project?



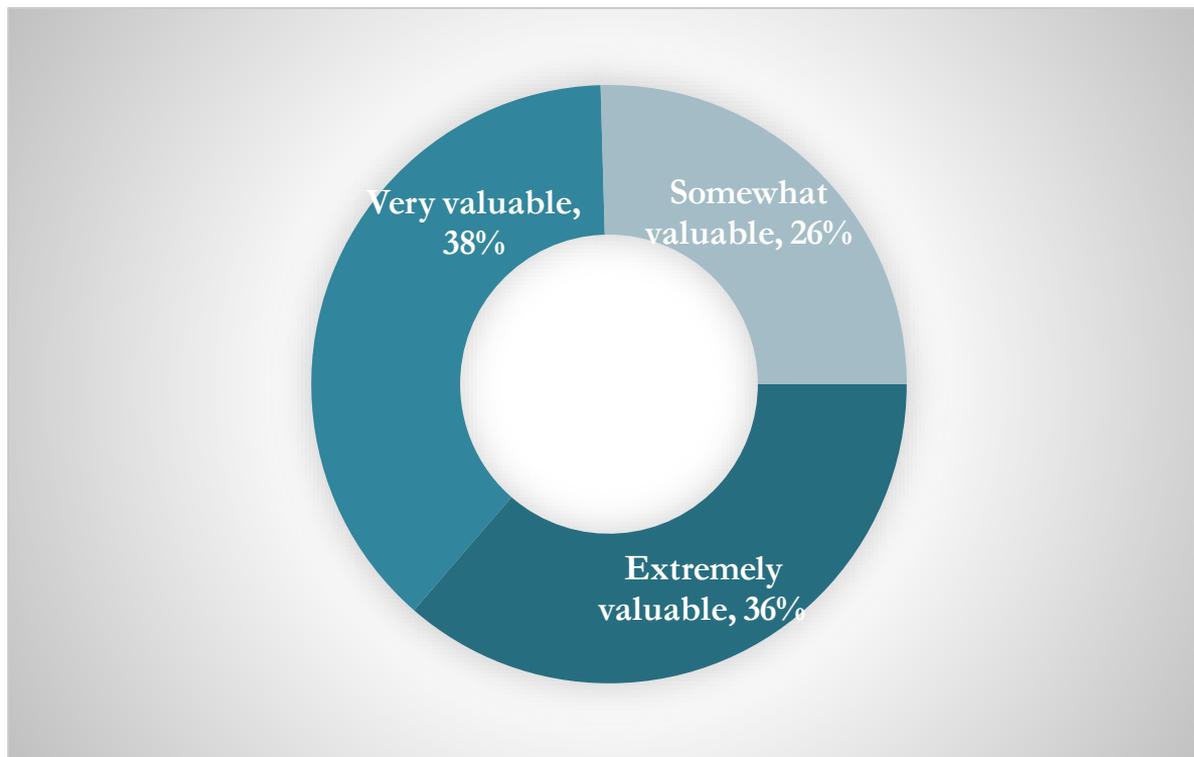
Q38: Do you feel individual certification from organizations like PMA India will add value to the EPC companies?



Q40: PMA India has a vast pool of expertise in EPC segment with several professionals formally certified in various levels like A/B/C/D. These professionals can act as independent consultants to various projects and provide niche services. PMA India intends to develop this as a separate vertical. Do you think such services will be useful in various ongoing projects implemented by Govt/PPP/Private ?



Q41: PMA India with its rich expertise intends to mentor & guide startup initiatives in EPC, esp covering digitalization. How valuable do you think is this initiative?





Summary of the survey findings

Summary of the survey findings (1/4)

- Sector operates with its own company's in-house policies and strategies
- Potential for this sector is widely recognised and long-term opportunities are felt positively by more than **95% of the respondents**
- In spite of 30% respondents operating at less than 50% load, during pandemic times (which affected 70% businesses negatively) **PM tools are felt as a good BCP support**
- Contract awareness and standards is seen as big knowledge and practice gap based on respondents of the survey

Summary of the survey findings (2/4)

- EPC Sector faces sectoral, technological and transaction cost (incl. margins) challenges in a significant way. In post COVID-19 scenario, time extension by client, new orders/sales and financial uncertainties are major issues
- Poor technology deployment and maturity is felt by more than 60 % respondents as a concern area. More than 88% and 95% felt that current and next two years respectively requires strong technological base as a driver to this sector's growth and prospects
- Staying ahead of competition and sales increase are felt as next set of priorities by respondents
- Productivity and risk management frame work is a concern area and is felt by more than 60 % respondents poorly implemented

Summary of the survey findings (3/4)

- Collaborative approach and lean construction is felt as modern approach for effective delivery of EPC
- 81% respondents have expressed confidence on PMA individual certification as a strategy for EPC delivery
- The digitalization in EPC as part of PM practices with focus on BIM/Data analytics and IOT is preferred by respondents
- 97% respondents expressed willingness to have PMA India as a consulting outfit once this vertical is established by us
- There are few other core competences for this EPC sector identified in the survey which can be further deliberated.

Thank you!
