Executive Summary

Overview of the Study

Impact of Industry
Transformation

Manakranda iran saking tha Jah Dala in Chart to M

Jobs and Skills

In the Future

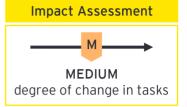
Global Case Studies Recommendations

Appendix

7.2.1 Job Dashboards

Assistant Project Manager (Construction)/ Construction Manager

| Megatrends impacting the Job Role in Short to Medium-Term | | | | | | | | |
|--|------------------------------|---|-------------------------|--|--|--|--|--|
| COVID-19 | Multi-Skilling | Value Chain Aggregation & Integration | Workforce Challenges | | | | | |
| | | | | | | | | |
| Technology Trends impacting the Job Role in Short to Medium-Term | | | | | | | | |
| BIM Technology | Data Analytics & Al | Digital Twin | Remote Monitoring | | | | | |
| RPA | 5G, IoT & Smart Buildings | Modular Construction | | | | | | |





Today

This job role is responsible for managing the execution of construction operations. Job holders validate the construction, installation and assembly of components, equipment and systems. Job holders also assess compliance with the relevant regulatory requirements.

This job role may need to understand how to leverage data insights to perform assessment and verification of processes and outcomes as required. Job holders may need to have an understanding and familiarity with digital tools and platforms so as to perform handover and closure tasks, as well as facilitate stakeholder management. Job holders may see growing emphasis on problem-solving skills to resolve construction phase and project queries in a timely and efficient manner, and the need to keep abreast of latest trends to apply sustainability and green building standards.

| Job Tasks Today | Impact at Task-level / Future view of Joh Tasks | | Time Horizon | |
|---|---|--|-----------------|--|
| Assess progress and quality of construction phase | М | Job holders may need an understanding of smart contracting technology (e.g., Blockchain) to support preparation of construction contractual and tender documents, and may see this task automated by the use of digital tools (e.g., RPA). | Medium- term | |
| | М | Job holders continue to be responsible to manage construction sites and associated risks, and will see continued focus on compliance and risk management. | Short- term | |
| | | ▶ Job holders may leverage digital tools (e.g., BIM Technology, Digital Twin) to automate the identification of construction requirements. Job holders may also apply such digital tools to perform assessment of project progress against contractual terms, and quality assurance and control standards against stakeholders expectations. Job holders will be expected to identify gaps through the data gathered and address it. | | |
| | | Job holders may also need stay up to date with the latest technological advancements and trends (e.g., DfMA, Sustainability) and its impact on construction requirements. | | |
| | | Job holders may need capabilities to operate digital tools (e.g., Remote Monitoring, IoT) to assess regular inspections and subcontractors' work activities and ensure compliance against regulatory requirements and performance expectations. | | |







Executive Summary

Overview of the Study mpact of Industry
Transformation

Jobs and Skill Overview Global Case

Recommendations

Appendix

7.2.1 Job Dashboards

Assistant Project Manager (Construction)/ Construction Manager

| Job Tasks Today | Impact at Task-level / Future view of Job Tasks | | Time Horizon | |
|---|---|--|-----------------|--|
| Verify for project completion and closure | М | Digital tools (e.g., BIM Technology, AI) may augment the verification of documentation (i.e., list of errors, defects and variations, technical documents for project handover and closure). Job holders will continue to perform technical verification where required. | Short- term | |
| | М | Digital tools may also automate the preparation of project handover and closure documents for approval and submission. Job holders will need to keep up to date with regulations, to prepare documents in compliance with relevant regulatory, legislative and maintenance requirements. | Short- term | |
| | | Job holders may also need an understanding of digital tools and platforms used for collaboration across the sector, to ensure compatibility and successful project handover. | | |
| Manage people and organisational functions | М | Job holders may see increased emphasis on on-the-job coaching to support the adoption of digital tools and platforms for teams. | Short- term | |
| | | Job holders may need an understanding and application of collaborative tools and platforms (e.g., BIM Technology) to track work progress. | | |
| Gather data for and assess viability of proposed continuous improvement initiatives | М | The use of digital tools for monitoring may also facilitate the gathering of data for time and cost management improvement plans. Job holders may need to have capabilities to interpret and translate the collected data into the plans. | | |
| | | Digital tools (e.g., Data Analytics & AI) may augment the viability assessment of continuous improvement initiatives. Job holders will thus need capabilities to apply these digital tools in the assessment process. | term | |

The following TSCs/CCSs have been identified as in-demand/emerging for the job role going forward:

| In-demand Technical Skills and Competencies | | | | | | | |
|---|---|------------------------------|--|--|--|--|--|
| Construction Technology | Critical Thinking | Data Collection and Analysis | | | | | |
| Design for Manufacturing and Assembly | People Management | Project Risk Management | | | | | |
| Regulatory Submission and Clearance | Stakeholder Management | Technology Application | | | | | |
| Emerging Technical Skills and Competencies | | | | | | | |
| Environmental Sustainability Management | Robotic and Automation Technology Application | | | | | | |
| Emerging Critical Core Skills | | | | | | | |
| Digital Fluency | Transdisciplinary Thinking | | | | | | |



