

Survey Description

Thank you for participating in this survey, which aims to understand the critical factors in construction project management, enhancing our knowledge and practices in this field.

- Our research is funded by **the Institution of Engineers, Singapore (IES)** and **Er. Wong Yui Cheong**, and aims to enhance our understanding and practices within the industry significantly.
- This survey is expected to take approximately **10 minutes** to complete.

Please note:

- This survey has been reviewed and approved by the Institutional Review Board of the National University of Singapore (NUS).
 - All data will be handled with strict confidentiality.
 - We appreciate your valuable input and thank you in advance for your time and insights.
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Part 1 *Demographic* Information

Q1.1 Your Work Location

- ☐ Singapore
- ☐ Others (please specify) _____

Q1.2 Your Role in Construction Projects

- ☐ Architectural Consultancy and Design
- ☐ Engineering Consultancy and Design
- ☐ Quantity Surveying
- ☐ Construction Management (Production)
- ☐ Construction Management
- ☐ Project Management
- ☐ Digital Delivery Management
- ☐ Facilities Management
- ☐ Other (please specify) _____
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Q1.3 Years of Experience (please fill in an integer)

Part 2 *Project Information*

Q2.1 Location of the last completed project you were involved in:

☐ Singapore

☐ Others (Please specify) _____

Q2.2 Type of the last completed project you were involved in:

☐ Buildings

☐ Infrastructure

☐ Light Industrial

☐ Heavy Industrial

☐ Others (please specify) _____

Q2.3 Cost of the last completed project you were involved in:

☐ < S\$ 1 million

☐ S\$1 million to less than S\$20 million

☐ S\$20 million to less than S\$40 million

☐ S\$40 million to less than S\$60 million

☐ S\$60 million to less than S\$80 million

☐ S\$80 million to less than S\$100 million

☐ > S\$100 million

Part 3 *Critical Factors*

Please respond to the following statements by indicating the extent to which you agree or disagree with the statement based on **the experience in your last completed project**.

Choose the appropriate number that most closely corresponds to your choice: 1-Strongly Disagree 2-Disagree 3-Neutral or Undecided 4-Agree 5-Strongly Agree

Q4.1 **Communications and Information Sharing**

Considering the last completed project I participated in...

	1 Strongly Disagree	2 Disagree	3 Neutral or Undecided	4 Agree	5 Strongly Agree
1. The team members responded to communication requests (e.g., emails, messages, or queries) promptly	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Most project information and updates were delivered on time or early	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. There were very few communication-related errors or misunderstandings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Key stakeholders actively engaged in meetings and discussions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Team members and stakeholders were satisfied with the communication methods or techniques used	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. There was fair access to information and communication, opportunities for feedback, and encouragement for diverse perspectives	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q4.5 **Clarity of Roles and Accountability**

Considering the last completed project I participated in...

	1 Strongly Disagree	2 Disagree	3 Neutral or Undecided	4 Agree	5 Strongly Agree
1. Most roles had clear, documented descriptions outlining authority and responsibilities, preventing any confusion throughout the project	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Most delegated tasks were completed smoothly with little need for clarification	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Clear accountability was in place when errors occurred	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q4.7 Participants' Expertise

Considering the last completed project I participated in...

	1 Strongly Disagree	2 Disagree	3 Neutral or Undecided	4 Agree	5 Strongly Agree
1. The project management team are experienced and effective	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. The client/owner demonstrated expertise and foresight	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. The contractors and subcontractors were professional	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. The suppliers were dependable and reliable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. The consultants have extensive experience and professional knowledge	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. The employees (e.g., construction workers, engineers, technicians, and administrative staff) possessed strong experience and professional skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q4.4 Innovative Technologies and Methods

Considering the last completed project I participated in...

	1 Strongly Disagree	2 Disagree	3 Neutral or Undecided	4 Agree	5 Strongly Agree
1. The team members and stakeholders actively participated in training sessions, workshops, and seminars focused on advanced technologies and methods	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. A considerable portion of the project processes incorporated advanced technologies and methods (e.g., Building Information Modelling, robotic construction, cloud computing, sensors, and so on)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. There was enough budget dedicated to acquiring and implementing innovative technologies and methods	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q4.3 Resource Availability

Considering the last completed project I participated in...

	1 Strongly Disagree	2 Disagree	3 Neutral or Undecided	4 Agree	5 Strongly Agree
1. The project had access to skilled human resources, including engineers, architects, electricians, carpenters, and masons, with the specific expertise required	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. The project was supported by an adequately resourced management team, including key roles such as project managers, site supervisors, and coordinators	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. All necessary construction materials were available to ensure smooth project execution	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. The required equipment and machinery were readily accessible	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. The project was supported by an adequate budget and sufficient contingency funds	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Sufficient time was allocated for each project phase to ensure smooth progression	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Comprehensive historical project documentation and technical expertise were readily available	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. The construction site was easily accessible, and the utilities (e.g., water, electricity, sewage, and telecommunications) were fully functional	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Please select 'Disagree' if you've read the questionnaire carefully	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q4.6 Commitment of Stakeholders

Considering the last completed project I participated in...

	1 Strongly Disagree	2 Disagree	3 Neutral or Undecided	4 Agree	5 Strongl y Agree
1. Key stakeholders actively participated in the early planning and decision-making phases of the project, including concept design, feasibility studies, and initial meetings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Key stakeholders consistently monitored and followed up on the project's progress to ensure ongoing alignment with objectives	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Top management provided strong support in decision-making and process advancement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q4.2 The Agility of Management Processes

Considering the last completed project I participated in...

	1 Strongly Disagree	2 Disagree	3 Neutral or Undecided	4 Agree	5 Strongly Agree
1. Responses to and implementation of changes in project requirements or scope were handled promptly	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Scope changes were effectively managed to minimise delays and avoid cost overruns	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Decisions during the project were made in a timely and efficient manner	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q4.8 External Environment

Considering the last completed project I participated in...

	1 Strongly Disagree	2 Disagree	3 Neutral or Undecided	4 Agree	5 Strongly Agree
1. Relevant local, regional, and national regulations, codes, and standards were stable and well-established	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. The economic and market environment was stable (e.g., no economic depression or severe inflation, stable material prices, and stable labour costs)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Political stability was maintained throughout the project processes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Environmental risks (e.g., natural disasters, climate change impacts) were minimal during the project	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Advanced technologies were ready for application in the industry	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. The local community maintained a positive attitude toward the project	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. The external supply chain was reliable, with minimal transportation risks and global supply chain disruptions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. There were very few incidents or conflicts due to cultural misunderstandings during the project	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Please select 'Strongly Disagree' if you've read the questionnaire carefully	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Part 4 Project Performance

Q4 Project Performance

My last completed project was successful in terms of ...

	1 Strongly Disagree	2 Disagree	3 Neutral or Undecided	4 Agree	5 Strongly Agree
1.Staying within the allocated budget	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2.Achieving project objectives on time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3.Meeting quality standards	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Achieve expected profitability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5.Meeting safety goals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Promoting sustainability in environment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Ensuring project team satisfaction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8.Stakeholders (Owners, consultants, and contractors) receiving satisfactory benefits	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Part 5 Open Questions

Q5.1 If you believe other critical factors impacted your last completed project that are not stated above, please specify them below:

Q5.2 Would you be willing to participate in future surveys interviews, or focus group discussions related to this research?

☐ Yes

☐ No

Please provide your **name, email address or contact number** below:
