

Better Practice Operational Tools and Techniques for Effective Construction Procurement

Risk Management

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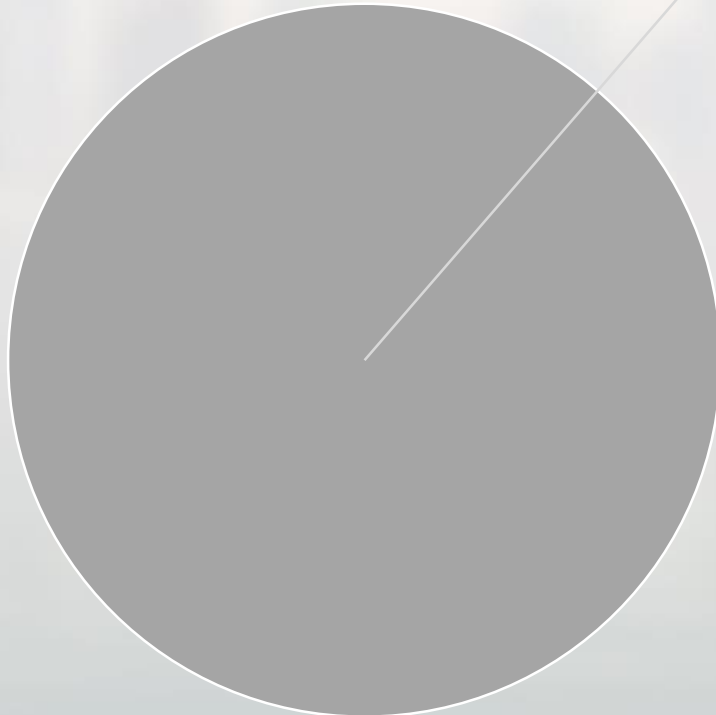
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The Big Question

Are we getting Value for Money out of our
Construction Projects?



The Problem



- **Cost Overrun**
- **Time Overrun**
- **Quality Degradation**



Procurement involves the following **4** parts:

- **Organisation Method:**
structure, level of authority & delegation, decision making process, etc.
- **Payment System:**
lump sum, measured, cost reimbursement, etc.
- **Tender Procedure:**
documentation, open or selective, single or two envelopes, cost estimation, etc.
- **Conditions of Contract**

PWA Common Procurement Methods

- **Design – Bid – Build (DBB)**
- **Design & Build (DB)**



Risk Management

Statement:

The selection of procurement method decides the level of risk in construction projects



Areas of Risk – Internal Factors

Resources & Project Organisation

Data & Information

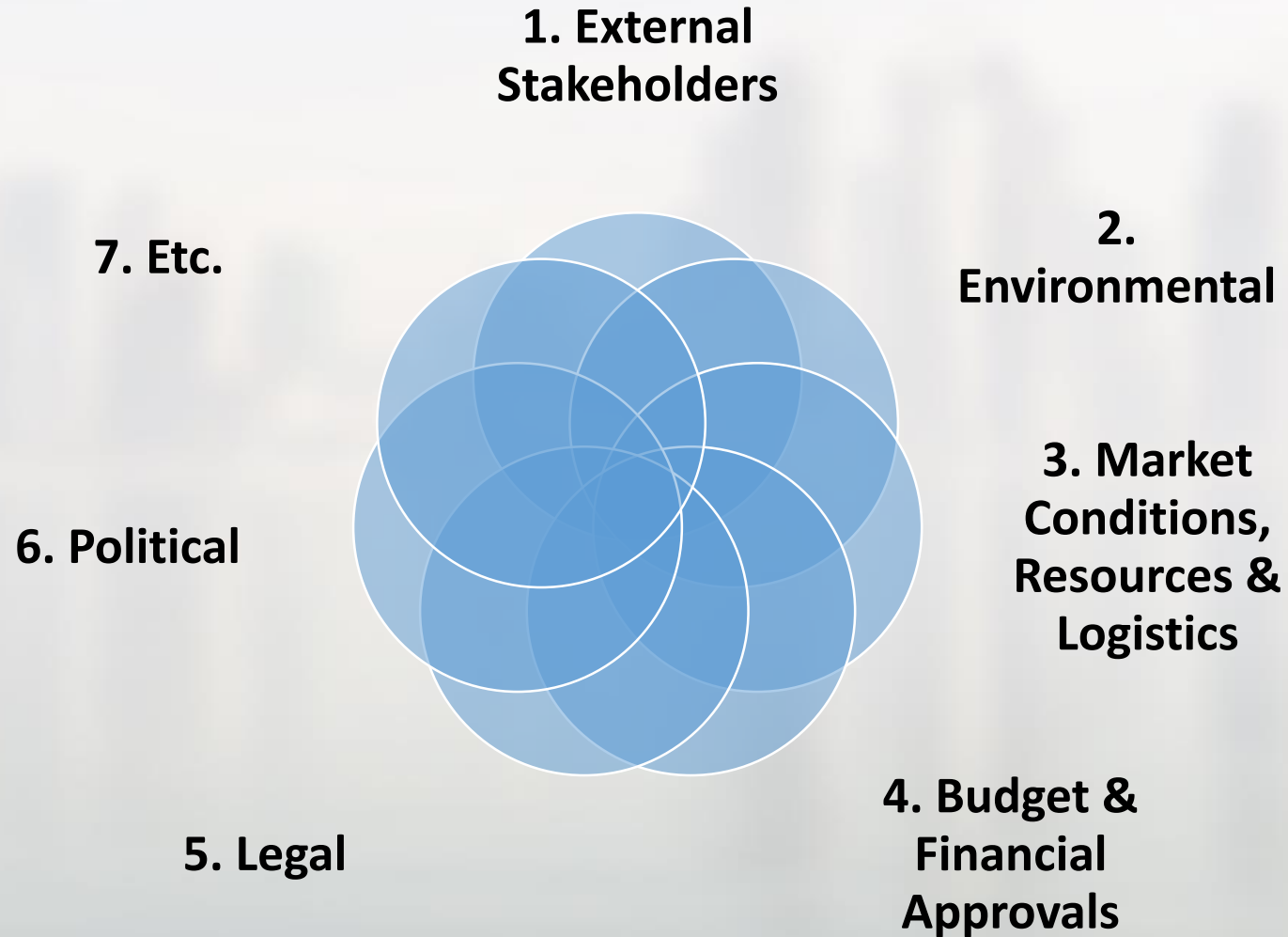
Process & Operation

Finance & Estimation

Procurement & Contractual Aspects

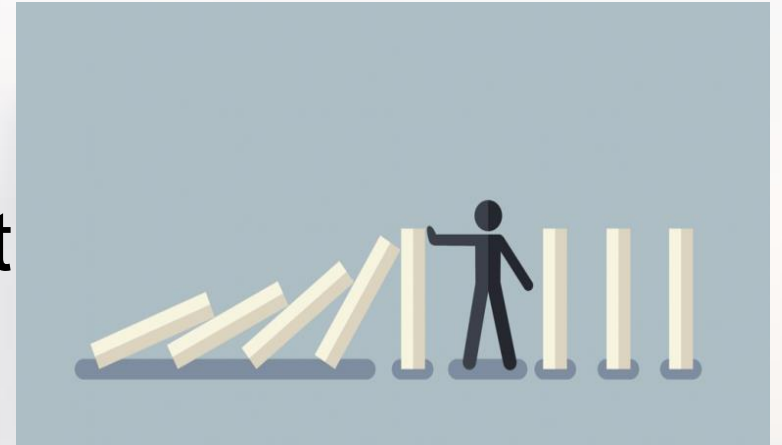
Contract Administration

Areas of Risk – External Factors



Question?

What is the level of Consideration given to managing & mitigating risks generated from those areas in building up our Construction Procurement Strategies and selection of most appropriate methods?



Risk Management & Procurement Process

There are two main linkages between risk management and the procurement process:

Cost Management

Contract Strategy

Cost Management

“Effective risk management provides a better and more realistic approach to defining risk allowance, in terms of calculating contingencies and tolerances*. If risk can be quantified in financial terms, then it is possible to provide a more effective approach to cost management.”

* Thomson and Perry (1992)



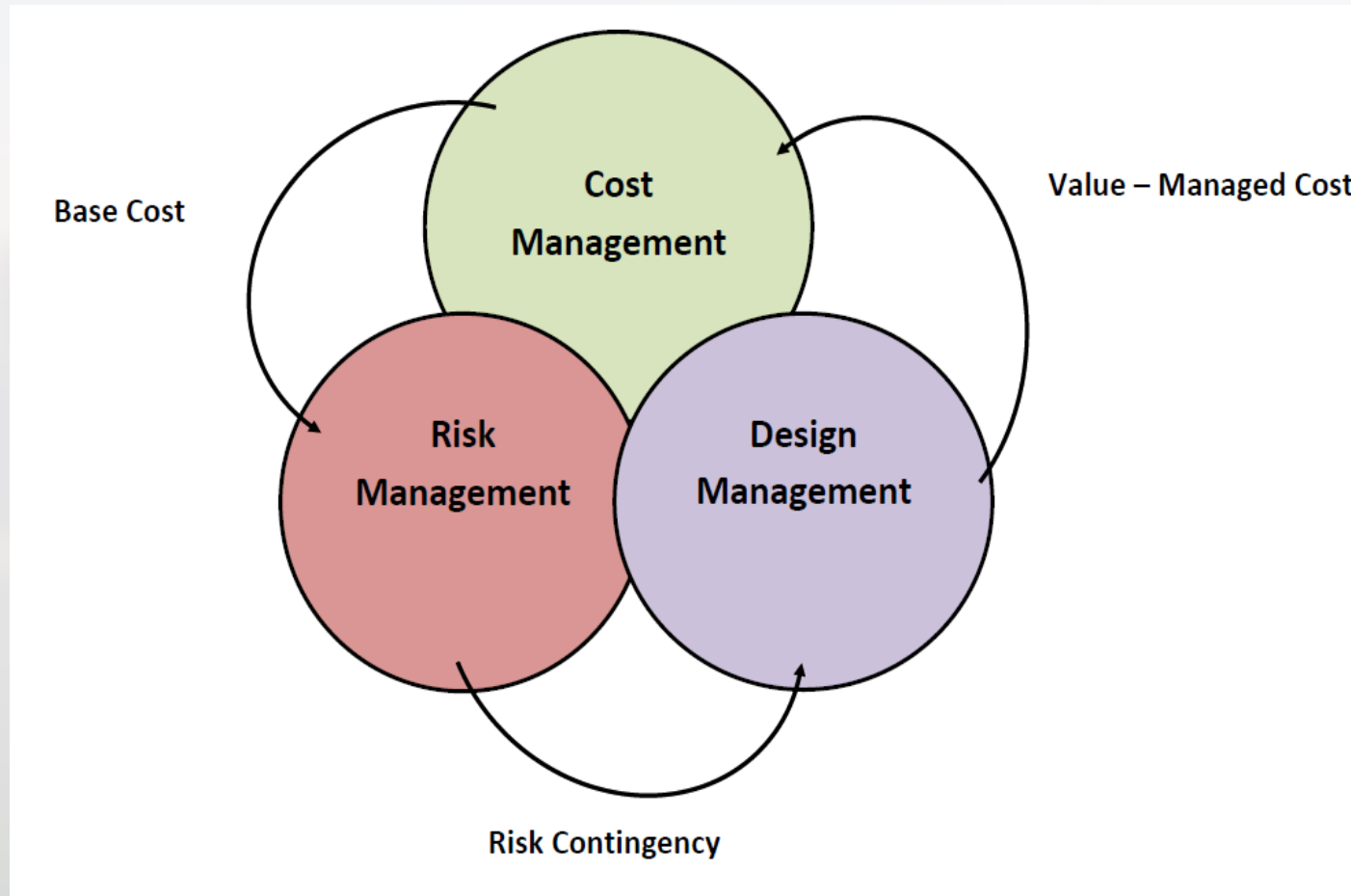
Contingency Management

The risk impact can be minimized through providing a contingency allowance to mitigate the effects.

- **The common practice is very subjective in contingency allocation.**
- **A global percentage value is applied – a subjective estimate.**
- **Need: accurate appraisal of contingency sums helps in greater cost certainty.**



Example



Inter-relationship between Cost, Risk and Design Management

Management & Practice (Teamwork)

Identify project specific risks through workshops & brainstorming sessions.



Prioritize risks in terms of probability of occurrence and magnitude of impact –



Analyze the significance of risk impact.



Verify risks through clarifying the nature of risk, identify other concerns and mitigate the effects – Risk Register.

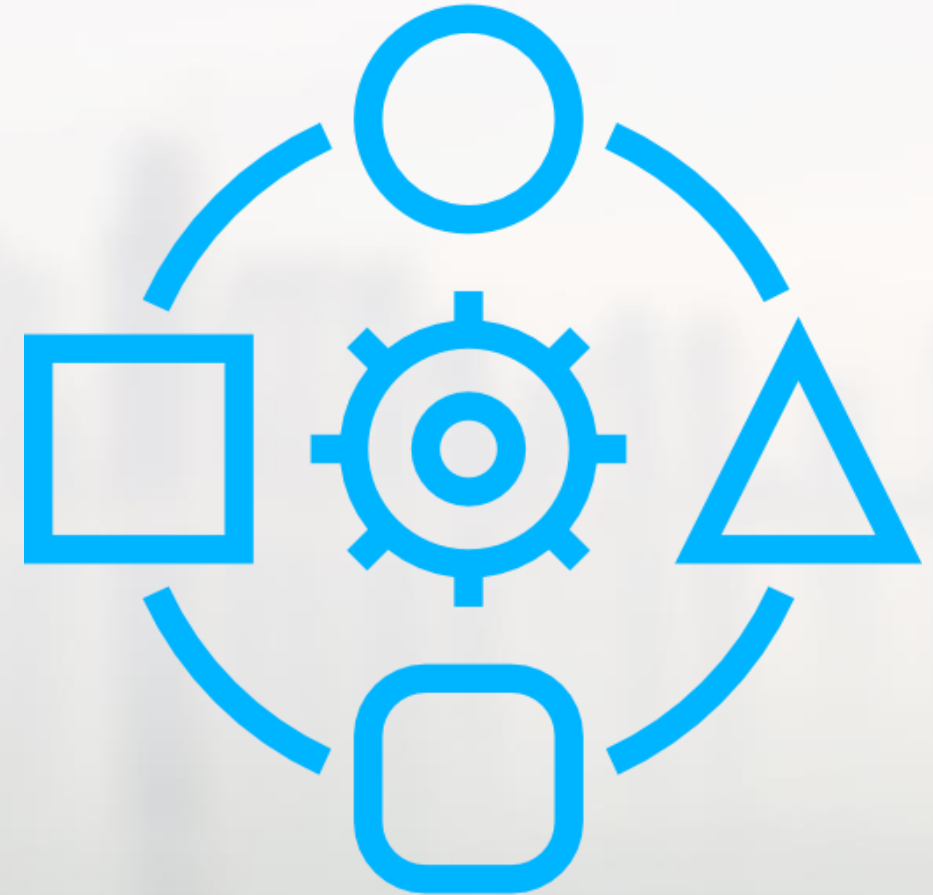


Management action

Procurement & Contract Strategies

Risk management helps in establishing

- **Project Priorities**
- **Number & Type of Work Packages**
- **Roles & Division of Responsibilities**
- **Terms of Payment**
- **Basis for Contractor selection**
- **Degree of Client Control & Involvement**
- **Most Appropriate Allocation of Risk**



Thank You

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