Focus group presentation

Butter management for variation orders in the Saudi public construction industry in the design stage

By
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Variation orders in the Saudi construction industry
- Variation orders are the major cause of failure in construction project performance.
- Cost overruns due to variation orders equal 6% to 10% of the original contract value.
- Design errors are considered as the most important cause of variation orders.
- Clients are dissatisfied because of the high percentage of variation orders due to design errors.

Research aim
- "To better manage variation orders in the Saudi public construction projects in the design stage".
  This aim will be achieved by engaging clients and consultants effectively during the process of VOM through different methods.

Research design

Techniques
- Literature review
- Questionnaire development
- Focus groups
- Interviews
- Content analysis

Key findings
- Variation orders are the major cause of failure in construction project performance.
- Cost overruns due to variation orders equal 6% to 10% of the original contract value.
- Design errors are considered as the most important cause of variation orders.
- Clients are dissatisfied because of the high percentage of variation orders due to design errors.

Exploratory interviews
- Exploratory interviews were carried out to investigate the current practice of variation orders in the Saudi construction industry.
- Research sample was 23 participants from public sectors and consulting firms.

Main finding
- No formalized approach to manage VO.
- Saudi construction industry adopts the basic principles of any VOM system (identification, evaluation, estimation, approval, implementation and documentation).
- Poor stakeholder engagement.
- No clear responsibilities for the design parties.

Linking the stakeholder engagement and VOM process
- Literature review pays no attention to stakeholder engagement during the process of variation order management.
- Stakeholder power-interest matrix was selected as a method to engage the stakeholders in better manage VOM.

Introduction
- Slightly possible to deliver a construction project without VO (Singhwa et al., 2002).
- Even in well-planned projects, change might be necessary (Anais and Phung, 2007).
- Change is "fact of life" for construction projects (Rovay, 2002).

Research problem
- Variation orders affect the progress of construction projects.
- Variation orders in the design stage always lead to poor performance (Ghadiyo, 2007).
- The design stage is with high likelihood of variations occurrence (Motonawa, 2007).

Research limitation
- This study deals with variation orders in the Saudi construction industry in the design phase.
- This study is limited to public building construction projects.
- This study deals with public sectors in Saudi Arabia that adopt traditional procurement routes.
- This study focuses on government organizations as clients and consultancy firms as consultants.

This workshop aims:
- To test the model’s effectiveness, clarity and applicability.
- To discuss and validate what success the experts think to have.
- To discuss the barriers of the model implementation.
- To discuss how the model could be improved.
Level of power and interest in the current practice and causes of poor performance

Questionnaire survey
- To verify and confirm research propositions.
- To identify the level of power and interest for public clients and design consultants during the stages of VOM.
- To integrate the basic principles of VOM and stakeholder mapping to develop a best practice.
- Survey sample was 217 respondents (87 clients and 130 consultants).

How to make the best practice happen (causes, requirements and actions)

Need for roadmap implementation strategy
- Developing best practice alone cannot influence the required changes (Berrin and Pinto, 2000).
- It is widely recognised that organisations have gaps between what they know and what they do (Pfeiffer and Sutton, 2000).
- There is a concern that the integrated system may fail to work out.

So, it was imperative to design a roadmap to successfully implement the best practice.

Research propositions
- Three research propositions were formulated.
  - An appropriate level of stakeholder engagement in the current practice of variation order management leads to the greater success of the management of variation orders.
  - Integration of stakeholder power-interest matrix and the basic principles of variation order management system would lead to best practice of VOM.
  - Applying a system that identifies the level of power and interest for the involved stakeholder would better manage variation orders.
- The propositions aimed to confirm the significance of integrating the stakeholder mapping and VOM process.

Main findings of the quantitative method
- Research propositions were verified and confirmed.
- Stakeholders were located and positioned in the power-interest matrix.
- Best practice was developed.
- The responsibilities of stakeholders were determined.

Implications of the best practice
- It clarifies the stakeholders’ responsibilities.
- It determines the appropriate level of stakeholder engagement.
- It reduces the quantity of the unnecessary interactions by public clients.
- It improves the communication and relationship among the stakeholders.
- It assists the stakeholders to avoid conflicts and disputes.
- It assists to speed up the time of variation order implementation.

Designing the best practice implementation roadmap.
- Three categories were identified:
  - Challenges identified in implementing best practice
  - Need for an effective implementation strategy
  - Need for professional guidelines
Thank you for your attention

Any Questions