AN EVALUATION OF THE STATUS OF RISK MANAGEMENT IN SOUTH AFRICAN CONSTRUCTION PROJECTS - THE CASE OF SOUTH AFRICA

SHARON SHUNMUGAM (SiVEST) & PROFESSOR P D RWELAMILA (UNISA)
THE RESEARCH PROBLEM

• The construction industry in SA is pivotal to turning the economy yet recently its growth has stagnated and become plagued with **failed mega projects**.

• ‘Why?’ Have the managerial practices that govern the risk of project failure in the been completely ignored?

• To answer this, the Research Questions were pursued:
  
  – Is RM recognised as a knowledge base among construction risk practitioners in SA?
  
  – To what extent is RM applied currently in construction projects in SA?
  
  – What are the current practices regarding RM in the construction industry in SA?
  
  – What are the barriers to RM implementation in the construction industry in SA?
Traditionally, Risks, are uncertain, undesirable and unplanned future events – usually results in an additional cost or delay hence threatening the objectives of the project.

But risk could also be an opportunity.

The Risk Management Process: comprises of the following steps essentially:

- Risk Management Planning;
- Risk Identification and Classification;
- Risk Analysis and Assessment;
- Risk Response/Treatment Formulation and
- Risk Monitoring Reporting or Risk Control.
Building on the perceptions detailed earlier, the trends from some other parts of the world regarding RM practices are summarised:

- **The United Kingdom**: The extent of application of systematic and rigorous probabilistic methods to contract risks in construction was very scant and the analytical methods did not adequately deal with subjectivity. RM was carried out by one person in the organisation rather than a dedicated team.

- **Australia**: The use of RM was actually found to be moderate to high but was mainly used only in the planning stages of the project. The use of analytical methods was not frequent – judgement, experience and intuition were preferred.

- **Singapore**: “lack of time”, “lack of budget”, “low profit margin”, and “not economical” were found to be the most common barriers to RM implementation. However, RM was perceived to be important for project success and it was found that it had a positive impact on the key project parameters.

- **Hong Kong**: Formal RM processes were used minimally; Deterministic and subjective methods used more commonly than quantitative methods. The time required and the difficulty in interpreting results of RM processes; lack of RM skill and human resistance to change were found to be the major barriers of RM implementation yet it was found that RM could positively contribute to project success.

- **Ghana**: It was found that the majority of professionals who participated had little to no knowledge regarding RM theories and techniques.
Visser and Joubert (2008) revealed that over half of the South African organisations surveyed, lacked formal RM policies and procedures and there was a lack of RM training. These findings were echoed by Mbachu and Nkado (2007) in their study. The most significant risks that plague the industry were found to be:

- shortage of critical resources,
- poor business and project risk management,
- risk exposure during the tendering process and government interference risk,
- the inability to meet quality requirements,
- labour and material shortages,
- time management challenges,
- technical and managerial incompetence,
- poor scoping ability,
- inept cost management,
- tendering irregularity,
- negative attitudes to work,
- labour union demands,
- exchange rate volatility,
- energy crises and political controls

Project success is highly dependent on the ability of the project team to manage risks yet there is an overriding theme of inappropriate skills, apparent lack of understanding of and regard for the RM process globally.
- The **MIXED METHODOLOGY** research method was chosen for this study hence both qualitative and quantitative research methods were used.

- The **quantitative method** (based on a questionnaire) was aimed at assessing the extent to which RM recognised as a knowledge base and to what extent it is applied currently in construction projects in SA?

- The **qualitative method** (through open interviews) was aimed at describing and analyzing what the current practices regarding RM are and what the barriers to RM implementation are?

- **Probability sampling** was used.

- The sample consisted of: **123 members – 82 contractors (CIDB Grading 8 and 9) and 41 consultants throughout SA.**
• **Research Instrument:** Survey Questionnaire (via email)
• **A 68.3% response rate was achieved.**
• **Profile Of Respondents:**
  – Almost 92% of the respondents had a post graduate degree.
  – About 70% had worked in the construction industry for more than 10 years
  – Almost all of the respondents were at the ‘Senior Management’ level.
SUMMARY OF RESEARCH RESULTS

- **Risk management recognised as a knowledge base**: Each of the constructs that were employed was well supported hence it is surmised that RM is a valuable contributor toward the more efficient management of construction projects and accepted as a knowledge base. However, there was clear indication at the very outset that there was lesser agreement surrounding the actual implementation of RM.

- **The extent to which risk management is currently applied**: Even though it was determined that most organisations did adopt a formal RM practice, there was a bold theme of ‘all talk and no play’ that emerged. ‘Identification and Analysis of Risks’ was found to be carried out more often than not however the follow on processes of ‘Risk Response’ and ‘Monitoring and Communication’ were found to be poorly practiced. RM was found to be more reactive than proactive. This is similar to findings in other countries.

- **The current practices regarding risk management**: The findings were consistent with previous research for the majority of constructs. It was established that apart from ‘Risk Identification’, the techniques employed to undertake risk analyses and responses were not well known or used. The mathematical models for ‘Risk Analysis’, specifically, were not well understood at all. The use of subjective methods such ‘Judgement based on experience and intuition’ was supported by the majority of participants.

- **The barriers to risk management implementation**: The barriers were found to be consistent with previous findings and included time constraints, ignorant attitudes towards RM and a lack of skills to undertake the process properly.
RECOMMENDATIONS

• Participants recommended:
  – RM training/mentoring,
  – Implementation of a formal RM process and
  – change in attitude and perception to increase RM awareness.

Whilst these suggestions are all useful, it was observed that they cannot be implemented individually hence the researcher recommends a Risk Management Improvement Process (RMIP).

• The framework from Graham and Englund (2004) was used as the foundation of the proposed process:
  – Development of senior management support
  – Development of an implementation plan
  – Establish a risk manager’s development programme
  – Make risk management a career position
  – Create a risk management awareness culture
Prepare for the road ahead
THANK YOU