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## Project-Related Failures, and Problems of Quantitative-only Enquiry.

*ARCOM Doctoral Workshop*

*Exploring the Impacts of Quantitative Research*

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A R C O M

## Presentation Layout

- Introduction
- Problem Background
- Research Aim
- Preliminary Literature Review Findings/Discussion
  - Relevance and Adequacy of Research into Project-related Failure
  - Use and Application of Failure-related Research
  - Barriers to Research in Project-related Failures in PBOs
  - Implications for Practitioners
- Conclusions and Recommendations



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## Why Project-related Failures Research?

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- ❑ Failures related to Project-Based Organisations (PBOs) remain a prominent concern.
- ❑ Examples include;



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### CROSSRAIL

Presently Crossrail is reported as needing additional funding of:

**£1bn**

It is facing a delay from its original planned completion date of:

**1 year**



Image Credit: Association for Project Management (APM), 'Crossrail', July 6, 2018, Flickr Creative Commons Attribution. Available at: <https://www.flickr.com/photos/apm/2018070600000000/>

With **Carillion** there are reports of:

**£1.5bn** debts

**2,782** job losses

**278**

Contracts transferred, to protect a further

**13,945**

workers against jobs losses.



Image Credit: Elliott Brown. 'Future site of the Library of Birmingham - Baskerville Basin dig', August 15, 2009, Flickr Creative Commons Attribution. Available at: <https://www.flickr.com/photos/elliottbrown/4000000000/>

More than

**70**

People lost their lives in the **Grenfell Tower** disaster (Gerrard 2018b)



Image Credit: Guido van Nispen. 'Grenfell Tower', January 5, 2018, Flickr Creative Commons Attribution. Available at: <https://www.flickr.com/photos/guidovan/4000000000/>

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- ❑ Hence, such numbers should have a huge impact on stakeholders of the built environment including policy makers, practitioners and researchers, and that
  - ❑ These cases should also encourage more efforts in trying to measure, understand and mitigate failure.

## Introduction and Background

### Measurement of Project Failure

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- ❑ Over time, the subject of failure has been receiving attention from the construction sector.
- ❑ Yet, no acceptable standard of measuring failure exists even after generating of several models.
- ❑ Huge reliance on the iron triangle (time, cost and quality) and each of those variables present challenges as observed by Atkinson (1999, p. 337) that;

***“Time and costs are at best, only guesses, calculated at a time when least is known about the project. Quality is a phenomenon, it is an emergent property of people’s divergent attitudes and beliefs, which often change over the development life-cycle of a project”.***

- ❑ In agreement, Pinto and Mantel (1990) concluded that quality is ‘perceived’.
- ❑ Hence how can we measure what we do not know?

# How?

## Measurement of Project Failure



Hence, a question that can be asked is: *What type of research approach is suitable for conducting enquiries around project related failure involving PBOs?*



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## Research in Project-related Failures

- ❑ Most common methods involve qualitative methods and mostly in the form of case studies
- ❑ Mainly focused on developing rules, indicators and support systems for failure assessment and mitigation (Atkinson 1999; Cope 2011; Pinto & Mantel 1990).
- ❑ Cope (2011) noted that this 'reductionist' approach eclipses other dynamic and complex matters such as the social aspects surrounding failure.
- ❑ Liu *et al.*, (2017) acknowledges that research focusing on failure, and learning from failure, in PBOs is particularly under examined and most research is non-empirical (Hall *et al.* 2012).
- ❑ Hence, **more dynamic and pluralistic approaches** are now being advocated for in PBO related research (Winter *et al.*, 2006; Sage *et al.*, 2014; Sydow and Braun, 2018).



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## Barriers to Research in Project-related Failures in PBOs

### Related To Nature And Understanding Of Project Failure:

- ❑ No agreed definition of project failure – failure is transient and subjective.
- ❑ Most research is anecdotal related.
- ❑ Cause of project failure contingent to the project life cycle stages.
- ❑ Negativity associated with failure.
- ❑ Lack of ownership of failure and the blame game.

### Barriers Related To The Nature Of PBOs:

- ❑ Temporary nature of PBOs
- ❑ One-off nature of projects done by PBOs
- ❑ Several organisational units and fields involved.
- ❑ Competition – Reluctant to share information
- ❑ Social embeddedness.
- ❑ Longer completion time.
- ❑ Limited number of certain type of projects.



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## Use and application of failure-related research

Despite such difficulties in attaining data, the results of research into project-related failures offer rich sources of lessons (Cope 2011).

- ❑ For instance; increase economic and emotional resilience (Shepherd 2003).
- ❑ However, its use remains a challenge because most research is ***anecdotal based***.
- ❑ Thus, such research findings/conclusions cannot be generalized.
- ❑ This was recently noted in the debate between Flyvbjerg *et al.*, (2002) and Love and Ahlaga-Dagbui (2018) who argued around about the issue of the generalization of results, among other concerns.
- ❑ Essentially the implication is that the use of research output relating to project failure in PBOs, in both research and practice, is hampered by the earlier highlighted barriers.



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## Implication for Practitioners

- ❑ As much as **standardised measurement frameworks** for project failure are being encouraged, it must be appreciated that there are inherent limitations to doing so, due to the **varying nature, type and stages of projects** (Atkinson 1999; Chen 2015).
- ❑ Further, more empirical studies should be performed especially recognising variously that each organisation and 'failure' differs (Burnes *et al.*, 2003; Cannon and Edmondson, 2005).
- ❑ Balance between quantitative and qualitative research because each serves a specific purpose.
- ❑ Attention should be given to both the social and technical systems in failure-related research (Sage *et al.*, 2014).
- ❑ The construction industry changes its perception of failure as being negative and realises that **there are benefits that can be derived from failure such as learning**.



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## Conclusion and Recommendations

- ❑ A standardised measurement framework for project failure remains a challenge due to the **varying nature, type and stages of projects** (Atkinson 1999; Chen 2015).
- ❑ However, Atkinson (1999) advises that the starting point could be the **iron triangle** and then other factors could be considered being perhaps limited to not more than **15 items**.
- ❑ Mixed approach - Quantitative and qualitative research because each serves a specific purpose.
- ❑ For instance, in project failure, qualitative research can produce deeper understanding and insight while more quantitative method can help with explanation of how factors are related.



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## Conclusion and Recommendations

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- ❑ Debates on appropriate construction management research methodologies have long been held (see Dainty, 2008, Raftery *et al.*, 1997, and Wing *et al.*, 1998) and they are still on going.
- ❑ Hence faced with a challenge of deciding on the research method to be used, as recommended by Wing *et al.*, (1998), the guiding principle should always be suggested by considering ***the nature of the problem at hand.***

**Overall;**

- ❑ **Researchers** should engage more in empirical research relating to failure while;
- ❑ **Practitioners** to view failure as source of lessons (not just negative), hence to be more willing to participate (in research) and share their failure lessons.

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**The End  
&  
Thank You**



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