Background
Construction is one of Australia’s highest risk industries. Despite technological developments and the implementation of robust occupational health and safety (OHS) management systems by construction organisations, the industry’s poor OHS performance seems resistant to change.

Modern theories of accident causation recognise the importance of organisational issues and management actions in contributing to workplace accidents. In the construction industry, root cause analysis of accidents reveals that many on-site accidents can be attributed to professional or managerial decisions arising well before work commences on site, most notably in the project planning and design stages.

Consequently, there is a growing trend for OHS management responsibility to be driven up the supply chain, and be partially borne by construction clients, and the designers of buildings and facilities.

The implementation of OHS requirements throughout all the stages of the life cycle of a project is vitally important. Success in OHS management can only be achieved through teamwork between all the project stakeholders—the client, the designer, and the constructor (including sub-contractors and specialist suppliers). Equally important is the interface between industry participants (see Figure 1).
Recent US-based research by Huang and Hinze (2006a; 2006b) provides the first serious attempt to empirically evaluate the impact of a range of client-led OHS initiatives on OHS performance in the construction industry. The US research revealed that the involvement of the client in pre-project planning, financially supporting the constructor’s safety programme and participating in day-to-day project OHS activities were important requisites for excellent project OHS performance.

Winkler (2006) describes how client involvement in construction contractors’ OHS processes has created a set of shared values supportive of OHS in the UK construction industry.

More recently, Chan et al. (in press) evaluated the impact of the ‘pay for safety scheme’ (PFSS) in the Hong Kong construction industry. The PFSS seeks to remove safety items from the competitive process requiring that contractors awarded government-funded construction projects above a threshold value, provide evidence that they have satisfactorily implemented a range of OHS management actions (including the establishment and operation of an OHS committee and the provision of OHS training) in the projects prior to being paid for these items. This analysis supports the contention that clients can influence OHS outcomes but relates to a unique policy initiative implemented in Hong Kong.

The Australian policy context

The opportunity for clients to influence OHS in the construction projects they procure has been reflected in important Australian policy documents and industry guidelines. For example, the National Standard for Construction Work (NOHSC, 2005) established OHS responsibilities for construction clients.

The Office of the Federal Safety Commissioner has produced a comprehensive set of OHS guidance material for government agencies engaged in the procurement of construction work, known as ‘The Model Client’ process.

More recently, WorkSafe Victoria has developed a best practice guide for the public sector on health and safety in construction procurement.

Research aims

Despite the widespread acknowledgement of the potential for clients to influence OHS outcomes in the construction industry, neither the quality nor the effectiveness of client leadership in OHS has been evaluated in the Australian construction context.

The proposed research seeks to provide greater understanding of what clients of the Australian construction industry are currently doing to improve OHS in the projects they procure and which client activities are the most effective drivers of project OHS performance.

In particular, the research has three primary aims. These are:

1. to investigate existing client OHS practices in a number of case study construction projects;
2. to develop a ‘safety index’ measurement tool for client OHS activities in the construction industry; and
3. to evaluate both the quality and impact of client-led OHS practices in the Australian construction industry.

Expected outcomes

Anticipated outcomes of the research include:

- an improved understanding of the potential for clients to influence OHS performance in the Australian construction industry context;
- the validation and testing of a ‘safety index’ measure of client OHS practices for use in the construction industry; and
- the development of evidence-based guidelines for the practical implementation of client leadership in OHS in the Australian construction industry.

Research methods

The research utilises two complementary research methods:

1. a comparative case study analysis of projects within participating client organisations; and
2. a combination of qualitative and quantitative data collection to evaluate the quality and impact of client-led OHS practices.

Data will be collected using three different techniques in accordance with a hierarchical model of OHS performance measurement developed by Lingard et al. (in press) for use at the Tullamarine-Calder Interchange construction project in Melbourne (see Figure 2).

First, injury data (outcome measures) will be collected from all participating construction projects. Injury data will include the incidence and frequency of lost time and medical treatment injuries as well as micro-injuries and first aid incidents.

Second, a safety index comprising positive performance (or leading) indicators of client OHS practices will be constructed and validated.

Third, safety climate surveys will be conducted at participating construction projects to ascertain construction contractors and subcontractors’ perceptions of the client’s OHS commitment and practices.

![Hierarchical OHS performance model](image-url)
Data collected using these three methods will be analysed to:

1. examine whether there are within-client differences in the way that OHS is managed within multi-project programmes of work in large client organisations;
2. identify the extent to which measurement of safety climate and client management practices via the ‘safety index’ can predict injury performance in construction projects; and
3. identify the project-level client practices associated with good OHS performance in construction projects.

**Deliverable:** A final report on the outcomes of the research will be provided to participating organisations. The report will:

- provide an analysis of the quality and impact of their OHS practices;
- identify those client-led OHS practices that will yield the maximum impact on OHS outcomes; and
- develop recommendations and strategies for implementing client OHS practices to yield maximum performance improvements within each organisation.

If it is of interest to participating organisations, the research could also provide the opportunity for inter-organisational benchmarking of client OHS practices, enabling the transfer of ‘best practice’ between organisations.

**What do we need from you?**

The researchers need to secure the participation of client organisations (from both public and private sectors) to provide access to personnel and projects for data collection. Interested organisations would be welcome to participate on a Steering Committee overseeing the research.

The likely benefits this research is expected to provide to participating client organisations are:

- a greater understanding of the quality and impact of their OHS practices;
- the development of strategies for improving their ability to influence OHS in construction projects; and
- ultimately, the achievement of improved OHS in the projects they procure.

**Research team**

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**References**


