All Change in Construction: A Comparative Analysis of Construction Industry Reform in the UK, Hong Kong and Singapore

INTRODUCTION
It is now ten years since Sir John Egan (1998) published his seminal report on the UK construction industry entitled *Rethinking Construction*. This was followed by similarly high-profile reviews of the construction industries in Singapore and Hong Kong, published in 1999 and 2001 respectively (Construction 21 Steering Committee, 1999; CIRC, 2001). The two studies were inspired by the Egan Report (1998) while being initially activated by local construction industry concerns. In all three cases the espoused intention was to attain a radical transformation of construction performance through a planned series of change initiatives. The purpose of the proposed research is to offer a comparative evaluation of the extent to which the three initiatives have been successful.

While the three initiatives possessed some similarities, there were also important differences in emphasis. An important point of commonality was the setting of instrumental performance targets relating to the recommendations set. However, the three reports were shaped by very different sets of local concerns. They also advocated very different institutional arrangements for implementing the desired changes. The premise of this proposal is that some ten years after the publication of the Egan report it is now timely to conduct a comparative evaluation of the progress made in the three locations. The comparison is important because the three locations comprise very different institutional contexts, with different local challenges. This research project will investigate the extent to which the respective institutional contexts shape and constrain the capacity to promote the advocated changes. The respective regulatory and legal frameworks are important in this respect, as are the structural characteristics of the three construction sectors. It is important to recognise that industry practices do not develop independently of governing institutional structures. Powell and DiMaggio (1991) refer to institutionally-embedded practices whereas Spender (1989) refers to ‘industry recipes’. Embedded industry practices are also frequently seen to constitute unique cultures, and all three change initiatives included an emphasis on cultural change. In researching the extent to which the three locations have embraced the advocated changes, it will be important to ascertain the respective capacity to ‘unlearn’ existing practices in order to make way for new ones (cf. Prahalad and Bettis, 1986).

BACKGROUND

Change in the UK
In the UK, the Egan report (1998) proposed a radical transformation of the UK construction sector, identifying five key drivers of change: committed leadership, a focus on the customer, integrated processes and teams, a quality driven agenda, and a commitment to people. The Strategic Forum was subsequently formed in 2001 to oversee the industry reform movement. This resulted in a revised set of targets for achieving industry reform by the end of 2007 (Strategic Forum, 2002). More recently the time horizon has been extended through to 2012. Current emphasis is given to the 2012 Construction Commitments which seek to promote enlightened practices on the back of the construction works relating to the 2012 Olympic Games. Egan’s initial agenda and the subsequent emphasis on instrumental targets were in no small way directed at overcoming industry failings caused by sector fragmentation. However, evaluation of the improvement agenda must be grounded in an understanding of the pre-
existing dynamics of industry change. The construction sector has never really existed as a coherent entity and the causes of fragmentation are deeply-rooted (Rabeneck, 2008). Furthermore, since the late-1970s, industry fragmentation has been exacerbated by the vicissitudes of the tax and insurance system which have accumulatively acted to encourage the growth of self-employment (Harvey, 2003). The demise of the public sector Direct Labour Organisations (DLOs) also did much to erode the industry’s traditional training base. These factors combined to reinforce the adopted model of ‘structural flexibility’ as the key means of achieving competitive advantage (cf. Winch, 1998). The end result was a contracting sector dominated by ‘hollowed-out’ firms with few direct employees, thereby raising concerns about the industry’s absorptive capacity and its ability to innovate (cf. Gann, 2001). The Egan initiative was therefore directed at a sector that was already locked into a ‘low road’ development path (cf. Best, 1990; Bosch and Philips, 2003) and the isomorphic forces at work were not so easily overcome. This was especially so given that the improvement agenda depended on voluntary action, hence it is not surprising that progress has subsequently been described as ‘slow and patchy’. Certainly there has been little willingness to reinforce the rhetorical exhortations of the Egan Report through regulation or institutional reform. Some progress has undoubtedly been made in overcoming more overt adversarial practices, but the ongoing reliance on voluntary adoption seems unlikely to deliver the desired industry transformation. Some have suggested that Egan’s quest for rationalisation may have encouraged a reliance on routine and structured approaches at the expense of imagination, innovation and professionalism (Hughes, 2003). Others have alluded to the possibility that the Egan agenda may have served to legitimise trends that were already happening rather than challenge the basis of existing embedded practices (Green et al., 2008).

Change in Singapore
The Construction 21 (C21) study in Singapore adopted the vision of a “world class builder in the knowledge age”. The strategic thrusts were: (i) enhancing the professionalism of the industry; (ii) raising the skills level; (iii) improving industry practices and techniques; (iv) adopting an integrated approach to construction; (v) developing an external wing; and (vi) a collective championing effort for the construction industry (Construction 21 Review Committee, 1999). The intention to realise the change programme through a radical transformation of the industry was new in Singapore. Also new was the setting of specific targets and a specific time by which each should be attained. The radical tone of the C21 report is evident from its title, “Reinventing Construction”. The prevailing problems of the industry included “segregation of the industry’s activities”. The industry which was characterised by three ‘Ds’ – dirty, demanding and dangerous - had to be transformed into one which was professional, productive and progressive. Additional desired outcomes included; a knowledgeable workforce; developing superior capabilities through synergistic partnerships; an integrated process for high buildability; an industry which is a contributor to wealth through cost competitiveness; and construction expertise as an export industry.

Some differences between the change initiatives in Singapore and the UK are immediately apparent. In Singapore, C21 was initiated and spearheaded by two ministries. Although the members of the Steering Committee and Focus Groups were mainly practitioners from the private sector, the government took responsibility for the change programme. The Building and Construction Authority (BCA) was named as the “championing agency”. The Construction Industry Joint Committee (CIJC), which groups together the professional institutions and trade associations was also expected to play an important role. The BCA acts as an executive, statutory construction industry development agency (which is also the
regulatory authority) and was entrusted with the implementation of the change programme. The C21 report has therefore been used as a blueprint to develop the construction industry (Ofóri, 2002) with the private sector of the construction industry being content for the government to lead. Thus, the CIJC was limited to a supporting role.

The adoption of a range of progressive practices in Singapore has been encouraged by C21. Examples include: information and communication technology (ICT) adoption, stimulated by the need to submit building proposals on-line through the Construction and Real Estate Network (CORENET) and to submit tenders via the government’s business portal, GeBiz; (ii) greater consideration of buildability as a result of the statutory minimum levels required of various types of buildings; (iii) the widespread adherence to the construction quality programme; (iv) the standardisation of the specifications used on projects as a result of the National Productivity and Quality Specifications (NPQS); and (v) greater recognition of continuing professional development.

However, some of the C21 initiatives and programmes have not succeeded. These include the promotion of design and build; the intention to reduce the number of foreign workers in the construction industry by imposing stricter controls on the number of such workers; and the policy of increasing the proportion of skilled workers in the construction industry (see Dulaimi et al., 2003). It is also important to recognise that the review of the construction industry in Singapore was only one of a series of comprehensive reviews of key sectors of the economy in order to prepare them for the challenges of the “knowledge economy”. These include SME 21, a development plan for small and medium-sized enterprises, and Productivity 21. Thus, the change programme for construction was part of a much wider initiative to develop the economy as-a-whole for the challenges of a globalising, knowledge-intensive world. The programme in construction was set in a wider national environment of change. In contrast to the UK, the enhancement of professionalism was a stated objective. The aim was to achieve this through additional regulation which was considered as anathema in the UK. Finally, it is notable that the “hollowed out” structure adopted has always pertained in Singapore. In itself, an industry relying on subcontracting has not been viewed as a problem; the aspect which has been considered to be undesirable is the common phenomenon of multi-level subcontracting.

**Change in Hong Kong**
The scenario in Hong Kong differs in initial focus and subsequent implementation from the situations in both Singapore and the UK. The calls for reform were triggered by a few high profile cases of sub-standard construction, and consequently enhanced general concern about specific practices such as wide-spread sub-contracting. These calls rapidly led to the launch of a substantial industry review (CIRC, 2001) with a brief to: (a) examine the current state of the construction industry in respect of quality, quantity, environmental friendliness, manpower, safety and supervision; (b) to identify specific actions and good practice to improve the efficiency and cost effectiveness of local construction in terms of quality, customer satisfaction, timeliness in delivery and value for money; and (c) to advise on an order of priority for implementation.

The Hong Kong Report (CIRC, 2001) was prefaced by the vision of “an integrated construction industry that is capable of continuous improvement towards excellence in a market-driven environment”. It packaged 109 recommendations under the following themes/strategic thrusts: (1) fostering a quality culture; (2) achieving value in construction
procurement; (3) nurturing a professional workforce; (4) developing an efficient, innovative and productive industry; (5) improving safety and environmental performance; (6) devising a new institutional framework to drive the industry; and (7) implementation of a change programme for the industry. Many recommendations were linked to short time frames ranging from 2-5 years. Some actions were flagged for attention “as soon as possible” and others called for setting up an industry co-ordinating body “as soon as possible subject to enactment of the necessary legislation”.

Indeed, the unexpected delays in the legislation and the consequent implementation machinery can be said to have delayed full implementation of many of the recommendations to the extent of hampering their contributions to potential core industry improvements. The bill to set up the Construction Industry Council (CIC) was first introduced into the Legislative Council in February 2004, but the CIC did not take over the work of the Provisional Construction Industry Co-ordination Board (PCICB) until February 2007. The main CIC functions are suggested as “to forge consensus on long-term strategic issues, convey the industry’s needs and aspirations to Government, as well as provide a communication channel for Government to solicit advice on all construction-related matters” (CIC, 2007). In order to propagate improvements across the entire industry, CIC is empowered to “formulate codes of conduct, administer registration and rating schemes, steer forward research and manpower development, facilitate adoption of construction standards, promote good practices, and compile performance indicators”.

The PCICB had previously submitted periodic reports on implementing the intended reforms (e.g. PCICB, 2005), but much currently remains to be done in implementing the CIRC recommendations. A final report to the Legislative Council (ETWB, 2007) identifies progress on each recommendation with many “to be further followed up by CIC” or “to be further followed up by Government”. Some useful specifics were achieved, such as setting up the Voluntary Subcontractor Registration Scheme (PCICB, 2003), and various initiatives to address cost reduction. However, much evidently remains to be done, especially given that industry needs, priorities and aspirations have changed over the past eight years. Even allowing for such changes, an investigation of the views of industry players may well reveal further gaps between what was originally proposed and what has been implemented. The CIC undoubtedly has more ‘institutional teeth’ than the temporary PCICB, while it would appear to be more specifically ‘dedicated’ to the original local reform agenda than the BCA in Singapore, or the Strategic Forum in the UK. However, CIC still needs to rely on existing institutions in order to propagate its proposed reforms.

The research gap
Despite the extensive literature that relates to the change initiatives in each of the three locations, there have to date been an absence of international comparisons. What is especially lacking is any research which evaluates the extent to which the three change agendas have been successfully implemented within their respective institutional contexts. It follows from the preceding summary descriptions that while the change agendas might be superficially similar, the pre-existing dynamics of change within the three contexts were substantively different. Furthermore, the three locations adopted different strategies for implementation with different roles played by newly created (or existing) change agencies. Of further interest is the kind of targets which were set, and the procedures adopted for establishing the extent to which they had been achieved.
AIMS, OBJECTIVES AND METHODOLOGY

Research aims and objectives
The aim of the proposed research is to study the implementation of the respective construction industry improvement programmes in Hong Kong, Singapore and the UK. The specific research objectives are:

1. To ascertain and evaluate against their original objectives, the outcomes from the implementation of the construction industry performance improvement programmes in Hong Kong, Singapore and the UK since 2001, 1999 and 1998 respectively.
2. To assess the respective roles of government agencies and the private sector including professional and trade bodies, in the implementation of the advocated reforms.
3. To compare the institutional characteristics of the construction industries in Hong Kong, Singapore and the UK, and the extent to which these characteristics influenced the implementation of the above reforms.
4. To draw lessons from these three implementation programmes for future construction industry improvements in each jurisdiction/context.
5. To develop a research agenda for contributing to the effort to realise improvements in the construction industries of the three jurisdictions in addition to other national/regional contexts.
6. To present specific recommendations tailored to each jurisdiction/context, for the development of appropriate performance metrics and targets, with particular emphasis on sustainable monitoring and continuing improvements.

Research methodology
The research will adopt a multi-method approach consistent with the broad tradition of “contextualist research” which emphasises the importance of studying “reality in flight” and of locating present behaviour in the context of its historical antecedents (Pettigrew, 2003). Of particular importance is to focus on the dynamics of change in the three under consideration. Few current researchers within the context of construction management (CM) give significant attention to time, with the result that much of their work is an ‘exercise in comparative statics’. In contrast, our research approach would recommend that researchers follow the approach of historians to “reconstruct past contexts, processes, and decisions” in order to discover patterns, find underlying mechanisms and triggers, and combine inductive search with deductive reason (cf. Orton, 1997). An important underlying principle is that the context within which change is instigated must be conceptualised as an active part of analysis (cf. Fernie et al., 2007). But context is not only shaping, it is also shaped by action (Pettigrew, 1997). The advocated research approach will unpack how the three contexts have been shaped over time and the influence that this has had on the implementation of the respective change agendas. Such a research orientation represents a significant shift in theoretical orientation from the majority of CM research. The research differs in that it adopts a ‘becoming ontology’ rather than a ‘being ontology’ (cf. Chia, 1995) approach. As such, it focuses on continuous processes of flux and transformation, rather than static characteristics that can be possessed and measured.

The research will be undertaken by a dedicated team in Hong Kong, Singapore and the UK and will involve the following stages:
1. Comparative analysis of pre-existing dynamics of sectoral change in the three locations. This will involve an historical analysis of available statistics and published sources.

2. Archival studies and review of literature on performance-improvement initiatives in each location to provide the basis for the formulation of the questionnaire

3. Empirical studies in the three locations, comprising.
   a. Workshops with prominent practitioners and policy makers (i) to verify the outputs from stages (1) and (2) and to identify emergent issues.
   b. A questionnaire survey using a common set of questionnaire, adapted in each case to suit the local context
   c. A series of semi-structured interviews with prominent practitioners and policy makers in each location.
   d. Five detailed case studies in each location with particular emphasis on the collaboration of clients, consultants and contractors and the interaction between the adopted strategies and the broader dynamics of change.

4. Workshops among the research teams and other invited international academics.

5. Publication of a joint report on the research project.

RESEARCH TEAM
The research project will be undertaken by teams at the National University of Singapore, University of Hong Kong, and University of Reading, UK. The Principal Investigators are:
1. Professor Stuart Green, University of Reading
2. Professor Mohan Kumaraswamy, University of Hong Kong
3. Professor George Ofori, National University of Singapore.
The three named principal investigators are uniquely qualified to implement the advocated approach.

REFERENCES


