



Can the Kingdom's Vision 2030 Giga Projects afford not to take a collaborative approach?

The sheer scale of the Kingdom's vision and the risks associated with delivering an unprecedented portfolio of developments and Giga Projects requires that all reasonable efforts be taken to avoid and mitigate these risks. HKA has successfully operated in the Kingdom for the past 40 years and has had a permanent presence in-country for more than 15 years. This extensive experience in construction risk and dispute management gives HKA a unique insight into the potential future issues that lie ahead for Saudi Arabia's construction market.

“Traditionally, there has been an aggressive, adversarial environment in KSA's construction market. When coupled with the fact that risk events are inevitable and considering the magnitude of these projects, there is a potential toxic incubator for major delays, cost overruns, and disputes, i.e., the successful delivery of the Vision 2030 Giga Projects will require a more proactive approach in order to avoid the toxic environment and disputes.”

Mitigating the risks of dispute when investing and delivering construction projects is not new. But even with the host of mature contracts and 'practitioner interventions' from Risk, Project Management and Commercial Management professionals (to name a few), it is still a process that is no mean feat. Knowing the risks and their likely causes in advance is of great value, not only with regards to asking the right questions during procurement and developing planned interventions, but also in the pursuit of dispute avoidance.

The Kingdom's vision 2030 is built around three themes: a vibrant society, a thriving economy and an ambitious nation. The construction industry sits at the heart of the Kingdom's strategy to achieve this vision. In the past decade, challenges in KSA's construction industry caused a significant increase in construction costs and several delays in delivery.

The HKA [CRUX Insight 2022](#) report reveals how global headwinds threaten further damaging overruns in costs and delivery of construction and engineering projects. Claims and disputes on 1,602 projects in 100 countries were investigated by expert consultants for the latest CRUX Insight report, published by HKA, the world's leading risk mitigation and dispute resolution consultancy. The combined CAPEX of these projects amounted to more than US\$2.13 trillion.



The CRUX report highlights the damaging influence of factors such as dysfunctional design processes, skills shortages and supply chain disruption on project performance:

- Design: A significant number of projects are dogged by design-centric failures – design information issued late (24.3%), incorrect design (23.8%) and/or incomplete design (23.2%).
- Workforce: 17.3% of projects were impacted by workmanship deficiencies, 15.3% by low levels of skill and/or experience, and 9.7% by a shortage of workers.
- Supplies: 10.5% of projects were disrupted by late delivery of materials and/or products.

According to the report, projects in the Middle East faced the worst delays globally (83.1% of schedule duration or 22.5 months, on average); even at their least severe, overruns averaged almost a year in the Americas (prolonging schedules by 58.2%, equivalent to 11.3 months).

These causal factors are perhaps unsurprising, given that over the last decade in KSA there has been an acknowledged and growing fragmentation of design elements of projects, with many diverse subcontractor design packages being introduced into the design development phase. While design activities in most cases are confined to early stages in the project cycle, thus giving a longer period in which to recover the lost time, a serious error affecting multiple interfaces can cause severe time and cost impacts, from which it can be difficult to recover.

Despite best efforts, it is a challenge to assess project risk with absolute certainty, not least because, it is only during the construction phase that any practical issues can be fully appreciated, and new issues arise. Design risk events will also affect procurement, for example, where details are all too often left to fabricators and manufacturers.¹ Some of this can be out of necessity, for example, because fabricators are familiar with the constraints of the fabrication process, whereas a general design consultant would not be. Consequently, it is not always possible to robustly define interfaces at the ideal time. The packaging of works and services in an optimal way is one of the most critical parts of the procurement process, creating the most effective interfaces with and between suppliers, allowing a client to manage the risks it is best placed to manage. Packaging also drives the organisational delivery model and structure. Get it wrong, and significant delays and additional costs will follow.

Further danger lies in the transition gap between digital technology and the practicalities of the physical construction. Insufficient allowance for the necessary design iterations between the detailed and scope design, can store up problems for the future.

Positively, there has been a growing appetite to address this fragmentation from within the construction industry.

Collaborative working has been gaining ground, both in contract agreements and in practice for a number of years, as the benefits of maintaining relationships and working in a non-adversarial manner have become clear to participants. In essence, the focus of collaboration is mostly on teams working together in a spirit of co-operation to design and build a project, identifying divergences in terms of planned time, cost and specified technical matters as they arise, then dealing with them using appropriate behaviours via the available contract mechanisms. In order to successfully do this, attention is applied to designing out problems prior to manufacturing and construction, then monitoring and controlling any identified residual risks to reduce or maintain an accepted risk level.

¹ In recognition of the importance of this phase of the design process, the new IStructE Structural Plan of Work 2020 which largely mirrors the RIBA Plan of Work 2020, contains a Substage 4b (Production Information) between Stage 4 (Technical Design) and Stage 5 (Manufacturing and Construction).



Therein lies a downside, in that risk monitoring can become a retrospective exercise, looking back and taking a 'lessons learned' approach, while other new risks that develop can remain unidentified.

Focusing on existing risks can reduce perceptions of new risks. Maintenance of risk registers solely by those intimately involved with the project can result in significant potential issues being overlooked, because those monitoring the risks are simply too involved in the detail. It is also not unknown for a significant risk to be worked around on a daily basis, as its severity increases, while being played down by those who should be sounding the alarm to the decision makers with the authority to sanction possible solutions.

Setting up and running regular multi-disciplinary design reviews is essential to enable interface co-ordination, particularly given the increasing and often diverse factors that are required to be optimised and balanced that influence the phases of a project. The latest of these, sustainability, has become a growing focus area, adding a fifth influencing factor to the traditional ones of time, cost, quality and safety.

For example, works at the King Abdullah Financial District located in Riyadh KSA were commenced without proper consideration of its commercial and economic feasibility. The Vision 2030 report identifies this and notes: *"When this objective was not reached, the government decided back then to develop and rent the real estate. Challenges were deepened by the development of the real estate project in one single phase, which caused a significant increase in construction costs and several delays in delivery."*²

With each additional factor lies additional risk down the line, which could affect both manufacturing and construction. For example, changes to legislation, standards and guidance, all of which have the potential to drive design and specification changes that were unforeseeable during the concept and detailed design phases, which is when the majority of any risk assessments are normally undertaken. Few clients, knowing there will be a superior benchmark by which to measure quality or environmental impact compliance created by new standards, will want their project to pursue an inferior benchmark, particularly if significant political pressure for compliance will influence return rates expected after handover.

In short, events with the potential to drive delays and additional costs are inevitable, so continued identification and prevention are key.

But if a dispute premium of over 20% on KSA construction investment is the norm, what additional techniques could be employed for further mitigation?

Hassan Hammadeh, the Executive Director for Saudi Entertainment Ventures who was previously the Operations Director for Arabtec Construction and delivered iconic infrastructure projects in KSA and the Middle East, avers that creating a fair mechanism to protect the rights of Contractors from the start of a project is essential to avoid disputes. He specifically notes that despite delayed payments and approvals (as identified in HKA's CRUX report) being a lead cause of delays in KSA, there is generally little or no contractual consequence for the Employer in respect to this default.

HKA notes that globally there is movement from leading Employers to work in concert with key suppliers and industry stakeholders to explore what more could be done to further reduce the propensity for dispute. In some cases, the result of this collaboration was the development and deployment of Dispute Avoidance Panels ("DAP"). The concept is simple; seek to avoid disputes from ever arising by employing techniques that focus on intervention.

² A RESTRUCTURED KING ABDULLAH FINANCIAL DISTRICT p.55
https://www.vision2030.gov.sa/media/rc0b5oy1/saudi_vision203.pdf



The technique is gathering momentum and is being employed across a number of key projects, with HKA having recently been awarded the framework to provide DAPs to international projects. The DAP process starts with a review of a programme by a panel comprising subject matter experts across commercial, legal, planning, and uniquely, behavioural disciplines who understand major infrastructure delivery and the genesis of disputes.

“Despite best efforts, it is a challenge to assess project risk with absolute certainty”

In collaboration with the project teams and using their collective expertise, the DAP members are able to identify potential issues of concern and provide the project leadership team with practical ways to avoid or mitigate the implications of such.

Our clients see the value in investing a relatively small sum during the project for interim reviews by an independent panel of experienced professionals. The panel is able to view the project objectively and draw the relevant parties' attention to where there could be potential disputes and recommend preventative action.

The cost of such preventative techniques has proven to be a high value proposition and could help avoid significant claims. Irrespective of how the cost of a DAPs is calculated, the cost of deploying such preventative measures is nominal when compared to the potential costs of managing a claim. The challenge of course is how to measure the value associated with something that didn't happen. This is where analysis of historic 'norms' can help.

The KSA industry is awakening to the fact that whilst there is a range of mature techniques for dispute intervention and resolution, there was little by way of techniques to support dispute avoidance. HKA consider these proactive approaches, such as DAPs, could be really beneficial in KSA, in particular the key large-scale developments and projects of the vision 2030 plan.

Conclusion

For many major construction projects and infrastructure programmes with medium to long durations, risks on the investment, in particular the risks of 'dispute premiums' can be difficult to predict prior to procurement and are notoriously difficult to manage during construction. The findings of the CRUX report, suggest that collaborative working is an effective approach for mitigating the risks of a dispute premium occurring on a construction project.

Encouragingly, in addition there is a growing awareness of the benefits of avoidance rather than intervention and the value of an independent pre-emptive assessment by a panel of experts in the form of a DAP.

The risks of adopting this type of technique are effectively small; namely paying for a review where either no risks are to be found (possible but very unlikely) or where no 'dispute risks' materialise (even more unlikely) which in turn presents the challenge of demonstrating the benefit where 'nothing actually happened'.

However, the potential savings in averting major schedule delays, additional costs and the inevitable breakdown in working relationships are real, as illustrated by current 'norms'. So maybe the question should be whether construction programmes are doing enough to address the common causes of dispute as highlighted in The HKA CRUX Insight Report? And whether such programmes can really afford not to utilise dispute avoidance techniques such as DAPs?



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