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Deloitte GCC Powers of Construction 2013
Meeting the challenges of delivering mega projects

87 Eighty seven years in the Middle East

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Foreword
The view

Jesdev Saggar

Andrew Jeffery

In the ever complex and dynamic industry of construction, it is imperative that communication amongst our peers informs us on what decisions we all make on a daily basis. Herein you will find a collection of views from across our Middle East team drawn from our experiences and lessons learnt, together with our predictions for 2013 and beyond. This is the fourth publication and the only one of its kind amongst the Financial Services industry in the Middle East. With 2013 forecasted to be a year of optimism and opportunity, all eyes are back on regional governments and how they propose to manage their spending. In a region where there is an acute deficit in terms of infrastructure, the ingredients for capital projects could not be better.

Shifting the focus

Regional economies are facing different priorities from political stability to economic sustainability and their treasury functions are under increasing pressure to save costs and increase revenue, whilst at the same time pushing an infrastructure agenda that doesn't necessarily 'pay back'. With everyone focused on the spending, it is now more relevant than before to balance the focus on costs.

Take this equation: -1 + 1 = 2… Look closer, the answer isn't correct!

Mathematically it should read as zero, so why does it read as two? Let us explain. Public and private organizations across the Middle East are increasingly taking a closer look at their bottom line. It will come as no surprise that most of them have faced a dynamic shift in their financial outlook over the past four years, forcing a change in mindset on cost or revenue, but not always both factors at the same time. Sustainability comes from understanding the balance between cost and revenue. For example, by using the equation above, and by saving one and making one, it will lead to a net increase of two, not zero! Whether a sole trader, small-to medium-size enterprise (SME) or a large organization, the notion of 'Survival Mathematics' applies to all. There are well documented instances where organizations chase revenue, only to end the year not profitable. In parallel, other organizations rapidly cut down costs, only to impact their ability to sell and lose revenue and, in turn, profit. The key to profitability is therefore the balance of the aforementioned. This may appear obvious, however, there are a number of sectors that continue to ignore the basics, only to fall foul of reaching their full potential. One such sector or industry is Infrastructure and Capital Projects (I&CP).

Infrastructure and Capital Projects

The I&CP market is growing rapidly with governments announcing projects across the Middle East region, utilizing trillions of petro-dollars over the coming years. Whether a private bidder or supplier of services or public body or institution, all will be acutely aware of the single most important factor in a project i.e. 'getting the number right', referred to herein as Survival Mathematics. This accuracy can make the difference between a 'marginal return' and a 'catastrophic loss'. If one assumes an internal rate of return for a private organization of c. 20% then by saving $1 off the cost base, it is similar to generating $5 of additional revenue. Therefore by saving $1 and making $1, it is the same as making $6, which suddenly gets everyone's attention. Large I&CP programs often have thousands of cost line items, none more unpredictable and problematic than 'claims and variations'. This can cause misalignment and dispute for both developers and contractors; moreover, it is the single biggest source of savings or losses throughout a large I&CP. Getting the cost base right and applying the right tools to calculate the balance of cost and revenue is critical to survival and therefore the mathematics discussed above becomes even more relevant.

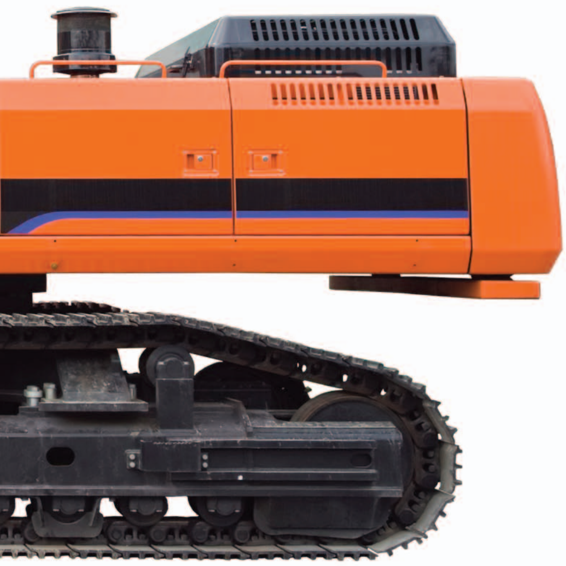
Growing intelligently

Firstly, the simple truth is that organizations are always seeking new ways to grow, which means getting the right balance between revenue and cost is key to recording real growth. For those individuals who manage, oversee or advise on large complex infrastructure projects, it is imperative that cost control and budget management are 'true', right through to the ledger. It is also imperative that savings are as important as revenue, and growth can be achieved by simply focusing on where the money goes, rather than where it comes from. As way of example, government agencies across the GCC are embarking on significant infrastructure projects worth many billions of dollars and are increasingly looking for better value for their money. Over the last 12 months, we have increasingly witnessed better procurement strategies being implemented by leading clients - including two-stage tendering with intensive mid–tender value engineering phases to harness the knowledge of the contractor to reduce costs and increase buildability but without reducing quality or functionality. ADAC's new mid-field terminal is an example we have been involved with that exemplifies this approach, but others exist. Increasingly we see leading clients becoming more intelligent in procurement, trying to secure "more for less" and fund other schemes with the savings secured. Contractors and consultants alike need to refocus, rethink and reframe their own strategies if they are to be competitive moving forward.

For those individuals who manage, oversee or advise on large complex infrastructure projects, it is imperative that cost control and budget management are 'true', right through to the ledger

This is, after all, the GCC and not one country, one culture and one economy but a collective of dynamic, growth focused businesses rooted deep in individual history and bound by a common belief

Secondly, Survival Mathematics is well understood by sole traders and SMEs, but as organizations grow, so does the delta between the top and bottom line. In the current marketplace, whether operating in a public or private manner, the art of surviving is more than just 'making budget' or 'target returns' but running a sustainable enterprise for the long term, founded on a compelling value proposition and balanced by a strong cash flow.



Learning from the past

Ancient mathematical transcripts of the Indian and Arabic civilizations provide an excellent backdrop to the understanding and application of the number 'zero' and just how powerful it was back then and still is today. It is this number that denotes fear in its state of absolution and continues to act as a symbol of financial disarray. Today we still see remnants of the misapplication of 'zero' and moreover the fundamentals of Survival Mathematics being ignored.

We talked last year about the five lessons of Reflect, Review, Refocus, Re-invest and Rebound. Many will share the view that we are already near point five and economies like the UAE, KSA, Oman and Qatar are on the upward trend of investment in infrastructure projects. However, we must not forget countries like Syria, Libya and Kurdistan who are at a much earlier point on the scale. This is, after all, the GCC and not one country, one culture and one economy but a collective of dynamic, growth focused businesses rooted deep in individual history and bound by a common belief.

Determining the future

With significant investment in major infrastructure programs increasing over the coming years across the GCC, contractors, consultants and clients alike need to rethink the way they engage each other if they are to truly realize the benefits each can bring to the process. Clients' increasing need for transparency, predictability and sustainability of what they spend provides contractors an opportunity to reflect on how the can meet this by better operational performance, improved procurement, schedule management and cost reporting. By leveraging best in class internal controls, contractors too can deliver 'more for less' whilst still retaining existing or improved profitability. Additionally by engaging more intelligently with clients, contractors should look at more innovative ways of sharing savings, risks and opportunities to the benefit of all.

For consultants, an 'output' rather than 'input' focus will be essential with clients rightly demanding delivered solutions, not just a confusing variety of options for them to review and select. Those who will be most successful will be those with specific industry insights, knowledge and experience and who know the client's business as well as the client does and can support them to make the right decisions.

In summary, we see no let-up in the pace of change or the growth of the GCC construction market and believe at the heart of future success will be more intelligent procurement, more robust project controls, data collection, review and management to allow all parties to make 'quality decisions' based on 'quality information' at the right time. The articles within this edition speak in detail about our experiences, insights and lessons learnt gathered from working with the GCC's leading construction companies and employers.

Those who will be most successful will be those with specific industry insights, knowledge and experience and who know the client's business as well as the client does and can support them to make the right decisions

Our analysis on the economic data for the GCC as well as a GCC SWOT analysis should also provide you with a useful source of data for delivering your strategy and business plans. We hope you enjoy the perspectives on the 2013 GCC construction industry.

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Qatar share their plans for Qatar 2022

Andrew Jeffery

Yasir Al Jamal

In December 2010 FIFA's President Joseph S. Blatter announced Qatar as the host country for the 2022 FIFA World Cup™.

No sooner had the decision been announced than the entire nation of Qatar took to the streets overcome with pride and joy. In the capital Doha, Qataris and expatriates alike flooded on to the streets creating a city-wide party atmosphere in celebration.

Since then, Qatar has been resolutely working on turning the dream into a reality. Just two years on from the announcement, we talk to engineer Yasir Al Jamal, Technical Director Qatar 2022 Supreme Committee, on the progress made to date, plans for the future and what the world can expect from Qatar 2022.

1. What are the key factors you feel are necessary for a successful development?

I believe that there are three major contributors to a development's overall success.

- Firstly, having a very clear vision and understanding of what is to be achieved.
  - This is to be described in terms of an overall vision as well as the specific aims that are to be achieved during the development cycle itself.
  - Without this, clear direction with suppliers cannot be achieved.
- Secondly, having a development team with a breadth of core capabilities which can be used to direct each aspect of the development program, be it technical, commercial or program related.
  - This team role is to ensure that the implementation of the development's vision is executed in the most effective manner.
- Finally, a major ingredient to a development's success has to be achieving a strong relationship with the external service providers, be these architects, project managers, contractors or suppliers
  - All of these parties must understand the vision we are striving to achieve and be able to work together to achieve a positive outcome.

2. What challenges do you think the contractor and developer market in Qatar will face over the next five years?

One of the most exciting and significant challenges Qatar's construction industry currently faces is the certainty of a fixed deadline for establishing all that is required to deliver a successful FIFA World Cup™ in 2022.

This immovable deadline has become the focal point for development of not just sporting facilities, but all the associated infrastructure and services required for success.

The key challenge the contractor and developer market currently faces is the realization that in order for the experience of this major tournament to be amazing, the delivery up to that point will also need to be amazing. This is in terms of achieving degrees of scale, forward planning, embracing new technologies not seen in Qatar before.

There will be major hurdles to overcome to ensure that sufficient sources of material and services are available at the right time and with the right quality and cost. However, I am confident that the preparation work that has been instigated and that will continue will support achievement of this.

3. Qatar has placed significant reliance on external PMCs and PMOs to deliver these programs – what challenges do you see in their delivery?

As part of the achievement of our National Vision, we have naturally sought to utilize the expertise that exists in Qatar and amongst our neighboring countries as a starting point, and we have some very successful projects delivered by respected organizations within the country and region to call upon.

However, much of what we are striving to achieve in Qatar is highly specialized in nature and with an unprecedented scale.

We have naturally sought, therefore, to also procure the services of international organizations that can bring their experience of delivering such large-scale and technically challenging projects, or bring a record of delivering successful sporting events, such as London 2012.

We have naturally sought, therefore, to procure the services also of international organizations that can bring their experience of delivering such large-scale and technically challenging projects or bring a record of delivering successful sporting events, such as London 2012

The challenge will be taking the best aspects of the international approach and adapting them to local market needs.

Within the Qatar 2022 Supreme Committee, we have ensured that adequate numbers of key personnel within PMC the Programme Management Consultant (PMC) and the PMO Programme Management Office (PMO) teams have working experience in the Middle East and that local businesses are also represented or established as part of the requirements for appointment.

4. How do you think Qatar is affected or protected by/from the regional and international construction industry, in terms of costs and manpower?

I believe that the conditions faced by Qatar over the coming few years will be unlike the last major regional boom period in 2004 to 2008.

We are still in a global slowdown, which means that there is greater availability of many materials and finished products in international markets.

For contractor and sub-contractor appointments, we envisage a tendering process that will run continuously from 2014 to 2018 with each stadia and precinct development releasing the packages that will be required

In terms of locally procured materials and specific issues related to raw material that Qatar does not have in abundance, there will be pressure on supply as we reach a construction peak.

Therefore, we need to support national initiatives that will ensure we plan effectively for the smooth procurement of material for all major programs and these are now well advanced in terms of being established.

With manpower availability, the country will be in competition for resources from the home locations of workers and Qatar will work hard to achieve a number of aspects to become an increasingly attractive location for those workers.

5. When will RFPs come out in the market – how will the intended plans be rolled out to the market?

For the Qatar 2022 Supreme Committee program, we have already been in the market for a number of consultant services including program management consultant, design consultants, and project managers, with a number of awards made and tenders currently in progress or due to commence.

These have usually been advertised in local and regional publications, and we will continue to do this for our key consultant appointments.

For contractor and sub-contractor appointments, we envisage a tendering process that will run continuously from 2014 to 2018 with each stadia and precinct development releasing the packages that will be required.

These plans will be shared in greater detail during stakeholder engagement events and through our prequalification activities.

6. Will lump sum fixed price still be the preferred procurement methodology or do you see more risk sharing?

Qatar has a strong tradition in the use of lump sum fixed price contracting and there are many benefits to this approach, namely the commercial planning can be more effectively controlled.

Having said this, there are opportunities to introduce alternative forms of contract where appropriate, particularly where risks to contractors are difficult to price or where the scope of service needs to remain very flexible.

These are options that must be reviewed on a case by case basis.

7. **Will you be applying any new contract administration systems to streamline the process of administering such large-scale projects in a relatively short period of time?**
   Within the Qatar 2022 Supreme Committee program, we are evaluating the use of best practice systems and technologies for use in tendering and administration.

   We are also investing significantly in new technologies for document management, which will be used well into the post games legacy period.

   With each, we need to be sure that the governance and control requirements laid down by Qatar are complied with, and that accessibility to all potential vendors remains without barriers.

   There are some very good opportunities for increasing visibility of procurements and in speeding up our evaluation procedures through the use of such systems and we will be developing these further.

With each, we need to be sure that the governance and control requirements laid down by Qatar are complied with, and that accessibility to all potential vendors remains without barriers

Personal reflections:

1. **How do you balance your professional and personal life and the pressure that comes with being a leader in this exciting program?**
   I find the best way to manage the pressures you mention is by firstly enjoying my work and seeing the results that it can bring.

   I think that if you can achieve this result, the pressure becomes more of a challenge to be achieved.

   I do try to keep some time separate from work though, as it is very important to retain a balance in one's life.

It is clear that key to the 2022 FIFA World Cup™ overall success will be the continuing commitment and dedication of the Qatar 2022 Supreme Committee leadership team, its stakeholders, contractors and suppliers

2. What are the advantages of being in Qatar for you?

There are tremendous advantages of being in Qatar as I see them.

We have the spotlight of the world increasingly upon us and that is allowing us to work with some of the best teams our industry has ever created.

The development opportunities for the people that will work on programs over the coming years will be enormous and the benefits will provide a lasting legacy for the nation.

What more exciting program can there be in the world right now?

3. What would you personally like to see in Qatar that isn't there right now?

I would like to see us attract even more of the top international football teams using our facilities for training here in Qatar and to build on the experience of the teams that have already visited.

Both the teams and ourselves benefit from the ties that are created and the opportunities to learn from both perceptions of the player and the tournament provider.

It is clear that the next few years will be critical for the delivery of many aspects of the infrastructure required for the completion of the FIFA World Cup™ sporting facilities. Whilst the stadia will be very visible landmarks, it is the successful delivery the complex infrastructure that will be the lead determinant.

It is clear that key to the 2022 FIFA World Cup™ overall success will be the continuing commitment and dedication of the Qatar 2022 Supreme Committee leadership team, its stakeholders, contractors and suppliers.

By working together, an expectant nation is ready to burst onto the world sporting stage in style.

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Interviews

Yasir Al Jamal
Technical Director
Qatar 2022 Supreme Committee

KSA:
The road ahead

Basel El Malki

Saudi Arabia's construction industry is expected to continue its growth in the next few years with the value of projects planned and under way estimated at over $732 billion (MEED 28/02/2013) covering transport infrastructure, utilities infrastructure, education, healthcare and other sectors. Fueled by Saudi Arabia's strong demographic growth, high oil prices and a government-backed capital investment program, KSA looks to continue its dominance in the region as the biggest construction market for some time to come. This continues to give a major boost to the private sectors, offsetting some of the remaining global economic gloom.

As there is no limit of ownership and investments for foreign entities, the economy is rising steadily upward. Current construction volume forecasts predict that more than $136 billion worth of projects will be awarded in Saudi Arabia in 2013, making the Kingdom the number one opportunity in the Middle East region for contractors, consultants and vendors.

Strengths and opportunities

Among the GCC countries, Saudi Arabia is the largest. It has a land mass and a large and growing local population of 27 million (70% of GCC), which is expected to be double in size by 2050, which means solid domestic demand on goods, services and infrastructure and homes.

With 29.6% of the Saudi population under 15 years of age, the Saudi government plan is attempting to re-define its education system (as a part of the King Abdullah Project for the Development of General Education). By 2015, the government hopes to have built and / or renovated over 4,000 schools, 50 new technical colleges, 50 higher institutes of technology for women and four teacher training colleges, in order to increase the schooling capacity to over five million and university capacity to 1.7 million.

To achieve this, the government is developing six new economic cities across the country all requiring extensive new infrastructure. The need for new roads, bridges, housings and other structures is significant and will provide opportunities for GCC contractors and consultants to participate in their delivery.
Healthcare continues to be another top government priority with an upgrade to the healthcare facilities across the entire country including new hospitals, social centers, housing for the disabled and criminal rehabilitation centers.

Accordingly, a strong and competitive business environment will increasingly make KSA appealing to investors once risk appetite returns to global markets. Additionally, increasing opportunities will draw in contractors who were historically focused on markets such as UAE and Europe. The significant volume and size of projects will drive the increasing presence of multinational firms all eager to take advantage of the abundant opportunities the Saudi market will present. A major barrier, however, will be the scale and depth of the investment needed to operate effectively and the lack of locally based expertise that will adversely affect both multinational and local contractors alike.

This is why we will continue to see joint ventures between experienced Saudi contractors and regional and international contractors as this will create the capability and capacity required to build these projects at the pace required.

Weaknesses, threats, challenges and opportunities

Any risk which results in the shut down or slow down of production at an oil facility may lead to the disruption of oil output, which in turn could cause the overall economy to be impacted given the reliance on this sector.

Thus, if such a situation were to arise, the ongoing construction projects would be directly affected. Next, the government's ability to conduct infrastructure spending would be limited and it would be very difficult for government to allocate funds for development construction projects. Sometimes, government adopts policies to constrain the scope of spending by the private sector and thus, large construction projects in the private sector will be discouraged.

Another major weakness of this sector is the reliance on expatriate labor, reflecting a shortage of marketable skills among locals, which manifests itself in high unemployment levels among Saudis. In an attempt to strengthen the "Saudization" scheme and to enforce the Nitaqat program (that rewards companies for hiring a specific number of Saudi nationals and penalizes them for missing their national-hiring targets), in the last quarter of 2012 the Ministry of Labor called for the collecting of a yearly financial fee of USD 640 in favor of the Human Resources Development Fund for each foreign employee exceeding the average of the prescribed number of Saudi citizens working in the company. This will result in an additional payroll cost burden on all contractors operating in KSA and will affect the bottom line of all ongoing projects.

The 9th Development Plan for KSA set out a plan to invest $385 billion in social and economic infrastructure between 2010 and 2014

However, the biggest challenge by far that faces the government is how to implement all these capital investments projects efficiently and in a controlled and coordinated manner whilst controlling inflationary pressures.

Growth opportunities

The growth of Saudi Arabia's construction sector is very rapid. The projects which are already under way or planned are worth in the region of $732 billion.
We expect the Saudi economy to grow between 4% and 4.4% in 2013. Between 2010 and 2014, the Saudi Arabian government plans to invest $385 billion in developing its social and economic structure under the 9th Development Plan; 7% of this budget is allocated to housing services, 7.7% to communication and

The Saudi real estate market is the second largest economic sector after oil

transportation, 19% to social and healthcare, 15.7% to economic resources and 50.6% to human resources. The plan will include the construction of one million houses by the end of 2014, 117 hospitals and 750 primary care health facilities. which are expected to be open by 2015. Vocational schools and colleges are also expected to be included in this plan. Road projects currently under construction have been estimated at $2 billion, rail projects at $27 billion and a further $613 million has been set aside for the development / expansion of nine ports including Jeddah Islamic Port.

Opportunity – The new mortgage law

The Saudi real estate market is the second largest economic sector after oil. This sector's growth is forecasted to average 5% in the next couple of years. Steady population growth will continue to put pressure on existing infrastructure, housing and services. The private sector will remain highly dependent on foreign workers due to local skills shortages.

To address the shortage of residential houses, in mid-2012 the government took steps to implement a new mortgage law. This mortgage law regulates real estate finance and developments and allows banks to finance projects, which in turn we predict will boost the real estate sector once the new legislation is in full force.

It will also benefit the construction sector, raw materials, real estate companies and financial institutions, and will provide political and social stability.

In addition, the new mortgage law will help lenders to minimize their risks, which will help to broaden the lending capability. Importantly, therefore, it will also help Saudi nationals access cheaper controlled and reliable long-term finance to build their homes.

The opportunities from the new mortgage law are considerable and wide ranging, demonstrated by the fact that half of the massive stimulus package of $131 billion announced by King Abdullah in mid-2011 was focused on housing - a key issue for a population that is growing at 2% per annum and expected to reach nearly 30 million by 2013!

Further, Saudi Electricity Company announced that it has budgeted $16 billion for infrastructure projects in order to accommodate the big growth in electricity demand for housing projects. The company has provided electricity to 420,000 new housing units alone in 2012 and is expecting to provide its services to another 430,000 units in 2013.

Money is also flowing in from the private sector for housing. An example of this is a group of GCC investors who recently injected over $53 million into housing projects in Jeddah (Middle East newspaper, Jan 27th 2013), demonstrating the private sector's growing interest in this market.

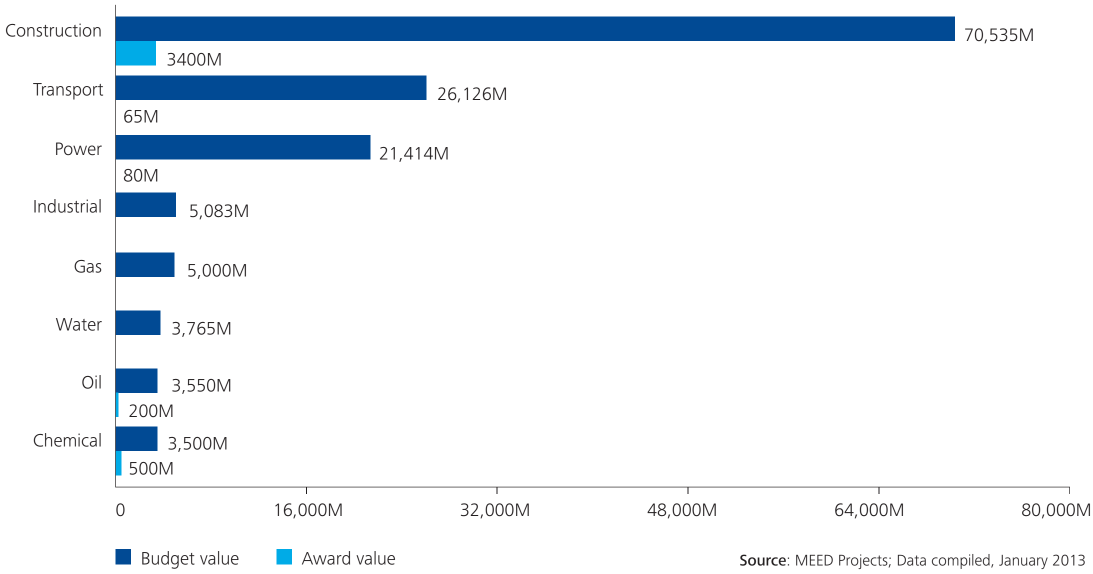
Much analysis has taken place on the size and extent of the construction industry and its potential over the next few years. According to MEED, the top 10 projects that are underway or under study in KSA are as follows:

Rank	Project name	Project owner	Sector	Revised budget ($m)	Project status	Main contract completion
1	King Abdullah Economic city	Emaar	Construction	93,000	Execution	Q4 2030
2	Nuclear Power Reactor	King Abdullah City for Atomic and Renewable Energy	Power	70,000	Study	Q4 2032
3	Saudi Housing Project	Ministry of Housing	Construction	68,000	Main contract	Q1 2018
4	Sudair Industrial City	Saudi Industrial Property Authority (Modon)	Construction	40,000	Execution	Q4 2029
5	Jizan Economic City	MMC Corporation; Saudi Binladin Group	Construction	27,000	Execution	Q4 2036
6	Kingdom City	Kingdom Holding	Construction	26,000	Execution	Q4 2017
7	Jubail New Petrochemical Complex	Sadara Chemical Company	Petrochemical	20,000	Execution	Q4 2016
8	Haramain High-Speed Rail Network	Saudi Railway Organization	Transport	13,743	Execution	Q1 2016
9	Khozam Development in Jeddah	Khozam Development Company	Construction	13,331	Design	Q2 2019
10	Renewable Energy Projects	King Abdullah City for Atomic and Renewable Energy	Power	13,300	Study	Q2 2017

Source: MEED Projects; Data compiled, January 2013

MEED also forecasts that more than $136 billion worth of projects will be awarded in Saudi Arabia in 2013, distributed to various sectors as follows:

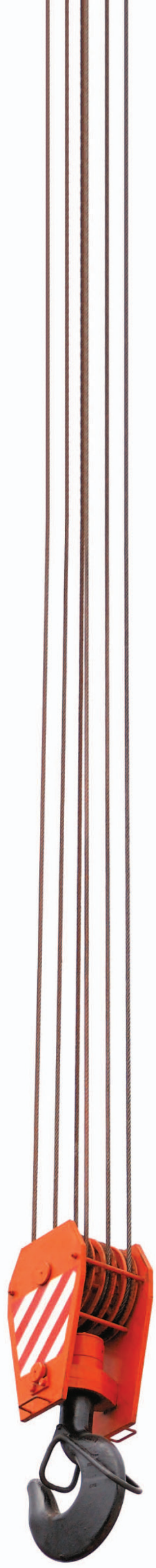
Market forecast by sector ($m)



Source: MEED Projects; Data compiled, January 2013

Top 10 Hydrocarbon – related Saudi projects set to be completed by 2013-end				
Rank	**Project**	**Sector**	**Project ($m)**	**Completion**
1	SATORP – Jubail Refinery and Petrochemical Complex	Oil and Gas	14,000	December 2013
2	Saudi Kayan – Jubail Petrochemicals Complex	Petrochemicals	12,500	H2 2013
3	SRAK – Kidan Gas Field Development	Oil and Gas	8,000	Q4 2013
4	Sipchem – Sipchem Phase 3 – Jubail Polyolefins Complex	Petrochemicals	7,000	Q 3 2013
5	SAAC – Jubail Acrylic Acid Plant	Petrochemicals	2,000	Q1 2013
6	SATORP – Jubail Refinery and Petchem Complex – Conversion Unit	Oil and Gas	1,700	Q2 2013
7	Samref – Refinery Revamp	Oil and Gas	1,500	2013
8	SATORP – Jubail Refinery and Petrochemical Complex – Interconnection, Gas Flaring and Electrical Systems Package	Oil and Gas	1,300	Q2 2013
9	SATORP – Jubail Refinery and Petrochemical Complex – Distillate and Hydrotreater Package	Oil and Gas	1,200	Q4 2013
10	SAMCO – Acrylic Acid Plant	Petrochemicals	1,100	Q1 2013

Source: MEED Projects; Data compiled, January 2013



Top 10 Non-Oil – related Saudi projects set to be completed by 2013-end				
Rank	**Project**	**Sector**	**Project ($m)**	**Completion**
1	Emaar Middle East – Jeddah Hills	Real Estate	11,200	2013
2	MAC – Ras Al Zour Aluminum Complex – Aluminum Smelter	Industry	5,000	Q12013
3	SSJA – Jazan Aluminum Smelter	Industry	3,500	Q4 2013
4	Saudi Ministry of Interior – Saudi Arabia Security Border – Phase 2	Infrastructure	2,600	2013
5	Jazan Economic City – Jazan Power Plant	Power and Water	2,500	Q2 2013
6	MAC – Ras Al Zour Aluminum Complex – Rolling Mill	Industry	2,500	Q4 2013
7	SEC – PP11	Power and Water	2,100	Mar 2013
8	SEC – Al Qurayyah Power Plant II	Power and Water	1,850	Feb 2013
9	Ajmakan Development	Real Estate	1,600	Q4 2013
10	Emaar Middle East – Jeddah Gate	Real Estate	1,600	Q4 2013

Source: MEED Projects; Data compiled, January 2013

Conclusions: Preparing to win…

We believe this is the right time for all players to take advantage of the expected growth and opportunities in the next five years by learning from past challenges and mistakes, moving ahead and planning for future success - otherwise they will be left behind. The time to grasp the opportunity is right now.

Our significant market and sector presence and recommendations on what industry participants can do to plan for success, as auditors, Zakat and tax advisors and consultants, will assist and enable our clients to make the best decisions in understanding the market and planning for success in the Kingdom.

We urge industry participants (owners, contractors, developers) to prepare and focus on the keys to success. A key to success is diversification, whether by geographical presence or contract types; such diversification will help contractors minimize any risks that might result from unforeseen economic or political crisis.

Industry participants should also strengthen their governance on contracts, maintain accurate information and estimates at all times from the initial business models, feasibility studies and design through commissioning and operation. They should also ensure proper commercial management, embrace and invest in new technology that enables them to become proactive rather than reactive and ensures the delivery of projects more efficiently. In addition, they should monitor and be alert to all risks associated to projects from technical and commercial risks to legal risks throughout the project life.

Another key to success is by thoroughly studying the requested specifications, contractual provisions and deadlines and considering the impact of any challenges, whether in the design or at the execution stage, prior to entering any tender, putting more focus on quality and not only price. Industry participants that possess strong business sense and the ability to respond to the market with a mindset to maximize potential returns while controlling cost will definitely have the upper hand.

Basel El Malki
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Endnotes
Sources: Meed Projects, Zawya Projects Monitor, Middle East News Paper, Economist Intelligence Unit, Saudi Electricity Company, Minstry of Labor, CIA world of fact book and US-Saudi Arabian Business Council.

Five tips for the successful re-launch of real estate and hospitality projects in the GCC

David Stark

Hamed Farzadi

Following the global financial crisis and the Dubai World restructuring, which caused shockwaves throughout the region, a large number of real estate and hospitality projects were stalled due to funding constraints, in addition to loss of confidence in the region by the stakeholders concerned.

Over the past 12 months, a notable recovery in the GCC property market has led to renewed support from lenders and shareholders in re-starting construction of near complete projects.

In order to successfully complete and launch such developments, other than the construction element, there are a number of important matters that should be carefully considered by corporates and their management team. Set out below are our top five tips for ensuring a successful re-launch.

1. **Value for money** – A proposal to fund the remaining construction costs of the development is usually submitted to one or a combination of lenders, sponsors or the government. As part of this proposal, it is important to critically anaylze the current and completion value of the projects so that at the very least it can be demonstrated that for every dollar of new money spent, the overall value return is greater - i.e. a project is worth a lot more when it is completed and operational than in its incomplete state. This way, lenders and sponsors who may be advancing the new monies are able to consider a credible business case which they are able to fully support.

2. **Be in control of your costs** – All too often costs for development projects are underestimated and go over budget, which at times may be due to contractors initially underbidding to win the contract. Stakeholders are too familiar with prolonged delays leading to claims, variations and litigations, and at times if a amicable settlement cannot be reached amongst the parties, it can lead to costly arbitration proceedings. As part of the costs to complete analysis of any given development, in order to ascertain the 'true' liability of any given project, a detailed assessment of each contract should be undertaken by expert cost consultants. As part of this exercise, it is critical for the project's team and engineers to be fully linked in with the finance function to assess any claims and non-agreed variations and also understand the history of each contract and relationship with suppliers. For completion, the project should also be reviewed as a whole to cater for any out of scope elements, and if appropriate a contingency provision should also be factored in when submitting a funding request to lenders/sponsors.

3. **A proper business plan** – Looking beyond the construction phase of a development project is sometimes neglected, leading to its failure. Management should act early in formulating a business plan that is well thought through, with input from the right business units. The business plan needs to be conservative and achievable, as lots of things could and always tend to go wrong. For an operating hotel, the primary focus of a business plan should be for it to be robust and sensible whilst having a proper set of processes and systems in the business to support it. The business plan of a hotel should be benchmarked to comparable hotels in the market and also to forecasts of any incoming hotel operator. The final business plan is one which has the buy-in of the management team as well as lenders/sponsors who may be relying on it to anticipate return on their original lending/investment.

4. **Capable management to deliver** – Often businesses fail and/or enter a restructuring process with their lenders as the business plan was over optimistic with covenants breached early and its terms not met. Delivery of the business plan and having the correct management team in place is key to the success of any business. Circumstances change that are not in the direct control of management and hence a long-term business plan must be constantly reviewed and updated for actual events, whilst keeping the stakeholders informed. Management should be able to adequately measure performance against the plan through suitable financial reporting and KPIs that can be reviewed on a timely basis. If delivery of a business plan is ever deemed doubtful, management should act early and inform the key stakeholders immediately so that preventive measures could be put in place where appropriate.

5. **Operationally sound** – There have been many re-launches of real estate and hospitality developments in the GCC, purely because of inadequate planning. Planning is critical in selecting the right hotel operator and real estate agent, who between them have the ideal local and international bandwidth, and also whose objectives for the project are aligned to those of the sponsors. As well as brand and experience, selection of a hotel operator and real estate agent should also be focused on the team they will appoint to the project, hence CVs should be reviewed and interviews conducted in advance of appointment. The right strategy for the overall development should also be pursued – for instance, do you sell all units to the public or do you propose a rental pool model for certain units in the real estate portfolio, which will also boost F&B revenue for the adjacent hotel? With the hotel, when do you launch given seasonality in the GCC? Is it best to do a soft opening before the winter season and full launch late?

Management should be able to adequately measure performance against the plan through suitable financial reporting and KPIs that can be reviewed on a timely basis

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Successfully delivering mega projects through a JV

Cynthia Corby

Mark Andrews

The past couple of years can be characterized as bid intensive, with tenders being sent out and construction companies spending vast amounts of money and resources responding to these substantial tenders. Most of these bids for tenders require time investing in building a relationship and analyzing the risk associated with a new JV partner in order to meet the experience pre-qualification requirements given the size of the projects being tendered.

With the following headlines in the industry it is clear that only successful and strong JVs will be able to qualify for and deliver the scale of mega infrastructure and strategic projects in the region:

"Projects planned and underway across the Gulf region now total more than $2,000bn, up 12 percent on the year-earlier period, according to Citi's MENA Construction Projects Tracker."[1]

"Major contract awards for the Doha Metro project are imminent, in accordance with the original timeframe, says Qatar Rail senior programme director: metro Adrian Shaw"

"Oman infra spend could reach USD78 billion"[2]

"Around USD121.3billion is being spent in road and bridge projects in the GCC"[2]

"$8.1bn highway projects in Qatar, says Ashghal - Contractors that have secured work on the scheme so far include the UAE's Al-Jaber Group, CCC/Teyseer, a JV of Turkey's Yuksel and the local Midmac Contracting and China's Sinohydro and a JV between local Qatari Diar and Saudi Binladin Group."

"The New Doha Port at Mesaieed has taken another step towards completion, with the joint venture of Athens-based Consolidated Contractors Company (CCC) and local partner Teyseer Contracting being selected for the QR1.06bn ($291m) contract for a container terminal. Etihad Rail has recently announced a number of contract awards for stage one of the rail network. The civil and track works contract has been awarded to a consortium of Italy's Saipem, Tecnimont and UAE-based Dodsal Engineering and Construction. The project management consultant has gone to a joint venture of Parsons-Aecom. PCM Strescon Ventures is providing the railway sleepers."

"The joint venture between Arabian Construction Company Saudi Arabia and Drake & Scull Construction Saudi Arabia (DSC KSA), a wholly owned subsidiary of Drake & Scull International (DSI) PJSC, has been awarded a SR2.7bn ($720m) contract to build phase three of the Jabal Omar development in Mecca."

"Tourism Development and Investment Company (TDIC), yesterday awarded Dh 2.4 billion contract for the construction of the Louvre Abu Dhabi, to Arabtec-led joint venture with Constructora San Jose SA and Oger Abu Dhabi LLC following a competitive tendering process."

"In May 2012, the joint venture of CCC, TAV and Arabtec was awarded the $3.2 billion contract of the Midfield Terminal of the Abu Dhabi International Airport."

"The Haramain High Speed Rail Project has an estimated value of US $4 billion. The project is split into three main packages: civil works (Phase 1 Package 1); stations (Phase 1 Package 2) and infrastructure (phase 2). Al Rajhi consortium won the civil works contract and has begun work. A JV of Foster & Partners and BuroHappold won the station design and build contract."

These projects are extremely complex and difficult, and require an inordinate amount of integration of technology, manpower and extremely strong project management to keep everyone focused and committed to the project. Contingencies are an integral and vital part of managing these mega projects given the sheer scope, scale, timing and sometimes uncertainty of the projects and this is where the JV partners need to understand the risks and share the same risk appetite and philosophy to managing and responding to these risks.

We asked Mark Andrews, Managing Director of Murray and Roberts Middle East, a company with extensive experience working in JV partnerships in the GCC, to share with us the key reasons Murray and Roberts considers entering into JVs. Mark listed the following areas as the key reasons for deciding whether to bid for a contract as a JV:

1. Pre-qualification criteria for the project – this can range from combining resources and capability to being job specific or even resource specific;
2. Sharing risk – this involves aligning the corporate views on risk appetite and risk thresholds for each JV partner;
3. Gaining supply chain leverage if the JV partner's resources provide this input.

According to Mark, due consideration and diligence on your chosen JV partner would involve an assessment of the JV partner's reputation and track record for delivery of the type of projects being tendered. Financial strength of the JV partner is key. The culture and management style and project team relationships need to be assessed to ensure that these would be aligned. Previous JV experience is important ad should be appraised to ensure the JV partner is familiar with the dynamics and governance of a JV management team.

Mark's view on critical success factors for the JV project would require:

1. Alignment of the objectives, margin aspirations, risk contingencies and pricing risks;
2. Governance of the JV through agreement on the top level project team and JV Board composition;
3. Agreement on execution strategy, especially when securing in-house resources; agreement is required around use of in-house supply chains, key rates and charging structures for in-house resources;
4. Transparency of key processes and procedures for the project team to apply together with authority matrixes;
5. Understanding of each JV partner's corporate mandates and managing compliance of these within the realms of the JV.

These projects are extremely complex and difficult, and require an inordinate amount of integration of technology, manpower and extremely strong project management to keep everyone focused and committed to the project

We also interviewed Andrew J Beaney, Managing Director – Qatar and Interserve Engineering & Construction, Interserve International, for his perspective on key considerations when looking at entering into a joint venture, given this is a new area for Interserve in the region. We asked Andrew the following questions:

Why would you consider entering into a JV rather than doing a project on your own?

There are a number of reasons why you would consider a JV rather than participating alone:

1. The company profile does not fully meet the skills required to meet the project scope – there is a skill gap of say between 25% to 75% of the project scope.
2. The company has not completed a project of similar size and therefore needs a JV partner to give sufficient confidence to the employer or for simple market entry.
3. The project is in a new market or county and the company does not carry any local know-how, track record or 'wasta'.
4. The company is operating at capacity and needs to supplement resources from a JV partner.
5. The company does not carry the financial resources to bid and needs to share bid costs or indeed delivery costs and associated working capital with a JV partner.
6. The project risks are better mitigated with a JV partner (recognizing the potential for joint and several liability).

If these grounds rules and considerations are addressed upfront and properly resolved at the outset this makes for a good and solid foundation in which to operate a successful JV

What are the criteria you consider when selecting a JV partner and how do you assess these?

Firstly, you would seek out a company that would fulfil the objectives mentioned above. Once this is satisfied then the following criteria would be considered:

1. Financial stability – although the JV could have step-in rights for the resources if needed.
2. Cultural fit with Interserve – it is important that the JV partners' philosophies to managing the employer and the contract are aligned to avoid conflicts.
3. A meeting of minds with the senior members of each side of the partnership.
4. Track record and credentials – we would normally look at some examples of completed work.
5. Client testimonials – we would ask clients and subcontractors what they thought of the potential JV partner based on dealings with them in the past.
6. Staff churn rate – we would want to check that those we engage with have worked for the organization for some time to ensure stability of senior JV members who would deliver the project.
7. Meet other key members of the team to assess competence and decide who is going to provide the project director and project management team.

What do you believe are the critical success factors for a JV to deliver a successful project?

1. An equitable JV – each party must share in the risk and reward commensurate with the JV proportional share of profit, the IP and resource input.
2. The skills and capabilities of the JV must be complimentary – there is no point in both being good civil engineering firms if you are building an office tower for example.
3. Cultural alignment – both must share similar values in health, safety, quality, working environment and client service.
4. Leadership – the JV board directors must share a common vision and have the leadership skills to direct their JV team.

What do you think some of the pitfalls are, and how can you avoid these?

The key pitfalls can be described as follows:

1. A weak project director resulting in poor project performance.
   - Both parties must interview, select and agree on the project director. A clear job description must be agreed. This is a difficult role with several stakeholders to report to: each JV partner, the employer and the employers representatives.
2. One side feels they are putting more effort into the project than their share of the profit.
   - At the outset during the bid stage, each party must agree what resources and input to the project it will perform and agree the share of profit. If something changes then the parties need to agree how to compensate each other.
3. One side of the JV does not fulfil its obligations satisfactorily making the other side suffer.
   - This is a difficult area but a true JV should feel fully integrated and operate as one team – blame should not be apportioned and the team should progress the project to the best of their abilities. A strong project director will ensure this happens.

4. A risk event occurs and one side of the JV feels it's the other side's fault.
   - As above – a team-building partnering workshop at the beginning of the project needs to glue the team together so that they manage a single project risk register. Events should not be linked to either party in a joint and several relationship.
5. The project team creates a "them and us" culture.
   - Give the project team a different identity – hold team-building workshops regularly. Call the JV something different to the parent organizations and let the JV employ the project team rather than the JV partners where practically possible.

All in all, a number of very critical considerations for companies to consider when partnering in a JV where the risks on these mega projects are substantial. If these grounds rules and considerations are addressed upfront and properly resolved at the outset this makes for a good and solid foundation in which to operate a successful JV as we have seen in several large scale JVs and consortiums in the region. So with more of these arrangements to come, we also asked SNR Denton to give us a legal perspective on successfully partnering in a JV. Please refer to their article overleaf.

There is certainly no substitute for investing sufficient time and effort in completing the above diligence when selecting a JV partner – and once selected, it is a long partnership that will require a good governance structure with clear processes and procedures to ensure good communication to all stakeholders to facilitate timely responses to risks and decisions. It is critically important that the JV Board set out and agree on the project mobilisation and the formulation of the JV's 100 day plan to get the project started in an orderly, focused and cohesive manner, with JV partners jointly focusing on this extremely important task. Getting this right at the start will set the scene for the remainder of the project. We have seen issues arise in some JVs where a simple difference in the methodology used to track project costs gave rise to huge differences in reporting actual projects costs and overall estimated project costs – it sounds very simple and obvious but all these points need agreement and clarity.

There is certainly no substitute for investing sufficient time and effort in completing the above diligence when selecting a JV partner

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Endnotes

1 Source: Arabianbusiness – Jan 2013
2 Construction weekly

Other sources:
Meed, Arabian business, Construction Week Online, AMEinfo, Gulf Art Guide.

How to choose a JV partner: Critical success factors: A legal perspective

David Risbridger

From construction through to big pharma, the joint venture (JV) is a common business model, in particular in the Middle East where ownership restrictions are common and mega projects such as those expected as part of the 2022 World Cup event in Doha are simply too big to be carried out by even the largest single entity. Yet, despite this, appearance disputes at JV level remain common and all too easily can become protracted and expensive to resolve. It is no accident that lawyers like JV disputes.

Marry in haste and repent at leisure is an English proverb that has stood the test of time. Applied to the JV, it sends an important message. The choice of your JV partner is the most critical decision you will make when forming the JV. Under no circumstances rush that choice, and ensure as much due diligence as possible is carried out before you sign on the dotted line. History is a notoriously fickle ally here, and as the financial advice disclaimer makes clear, past performance may not be a good guide as to what happens in the future.

Our experience has been that JV relationships founded on strong personal relationships can and often do provide the best base from which to build a successful JV and see a JV project successfully through to completion. There is no getting away from the fact that relationships count and this is particularly the case in the Middle East where informal networks are often just as important as the formal contractual relationships.

If it's a new JV partner, then caution is the watchword and we would strongly recommend extensive due diligence including references and, if possible, first-hand accounts of previous projects and dealings. It is a remarkable fact that references are often not asked for and clear previous poor performance ignored. Many problems can be completely avoided by time spent at this stage of the JV formation process on such simple matters.

So you have your JV partner. What next?

Most likely you will look to enter into a JV agreement or a shareholder agreement if the JV is to incorporate. These come in myriad forms, types length etc., and can often be beguiling in their simplicity. Simple rules are often the best to follow and this advice is directly relevant when looking at what should be included in your JV agreement if you want to set it up to maximize the chances of a successful outcome. So here are five simple rules to follow:

Rule number one: keep it simple. Do not over complicate the documentation; it will be impossible for you to legislate in advance for all possible outcomes, so do not try. You will simply end up creating a litigation lawyer's paradise. You are creating a framework not a detailed manual.

Rule number two: be clear about who is doing what. Risk allocation should be clear and not fudged. Time and time again disputes arise in JV situations where both parties think the other is to carry out or be responsible for a certain task. This is a recipe for disaster and can easily be avoided. Better to have the conversation about where responsibility should go upfront than have it later in the courtroom.

Rule number three: are you all in it together? By this we mean sort out the joint or several nature of the liabilities of the parties to the JV. If there are three of you, is it a third each or some other arrangement? You might think this is such a fundamental point that it is never overlooked. You would be wrong.

Rule number four: sort out payment arrangements. It is a sad fact of life that payment disputes are common in JV situations and this is often due to no thought being given as to how payments will operate, who will be paid what, and how the mechanics of the payment process will actually work. Again some time spent upfront

sorting these matters out and then expressing the solution in clear easy to understand English can help remove the prospect of disputes.

Rule number five: 'dispute resolution' are not "dirty words". In a region where arbitration is a common form of dispute resolution it is an interesting fact that not all JV agreements include arbitration or alternative dispute resolution (ADR) systems. Given the nature of JV agreements and the disputes they generate, they are often well suited to arbitration-based dispute resolution techniques in particular, since arbitration is generally private and the language can be agreed in advance.

JVs are commercial enterprises in the sense they represent a true coming together of parties for a joint undertaking. As such, to borrow a description from Charles Dickens, they have the potential to offer the best of times and the worst of times, often in a way which is somewhat unpredictable. From a lawyer's perspective, the disputes we see in such arrangements are often some of the most disruptive and emotionally charged. In that sense and to return to the starting theme, they should not be entered into in haste and repented at leisure.

JVs are commercial enterprises in the sense they represent a true coming together of parties for a joint undertaking

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Capital efficiency in the GCC: Keeping commitments while delivering more

Jesdev Saggar

With single project portfolio values greater than USD 100 billion, these figures are greater than the GDP of a small country and would be the envy of market capitalization of many international corporations. The fact remains that the values that have been committed to – in the past 12 months alone – by government, quasi-government and private sector entities in the Gulf Cooperation Council countries are astonishing.

But whilst spending on some capital projects within the GCC continues to shock, only two words can ensure its sustainability. Capital. Efficiency.

Extracting maximum value from each project or portfolio not only improves a company's Internal rate of return (IRR) or Return on investment (ROI) – it could also mean the difference between delivering 130 schools instead of 100, five bridges instead of three. It could mean installing rail networks that reach more communities, delivering critical lifesaving infrastructure sooner rather than later. The importance of these capital projects and portfolios cannot, and should not, be underestimated. Because of their wide-ranging influence, they should have the complete commitment of the project owners and governments - even consultants and contractors - to maximize their value and ensure their success.

> But whilst spending on some capital projects within the GCC continues to shock, only two words can ensure its sustainability. Capital. Efficiency.

What distinguishes the GCC region from other regions is the source of funds, which is predominantly government-related and driven from oil and gas-based economies. Many projects do not therefore take into consideration financing and interest when assessing how capital efficient they can be, which could drive better business practice and capital project delivery. Many companies elsewhere in the world responsible for delivering capital projects continually consider shareholder value, driven by the need to be capital efficient because of the availability (or lack thereof) of project funding. The GCC is not different because of any reduced capital requirements for its projects; it is different primarily in that there is a perception that capital is readily accessible!

As world dependency on energy and resources continues to grow, what will drive capital efficiency in the Middle East for years to come is not likely to be anything borne out of necessity but by choice. What is clear is that the same capital efficient mentality employed elsewhere around the world, if applied to this region, could reap immense efficiencies and savings.

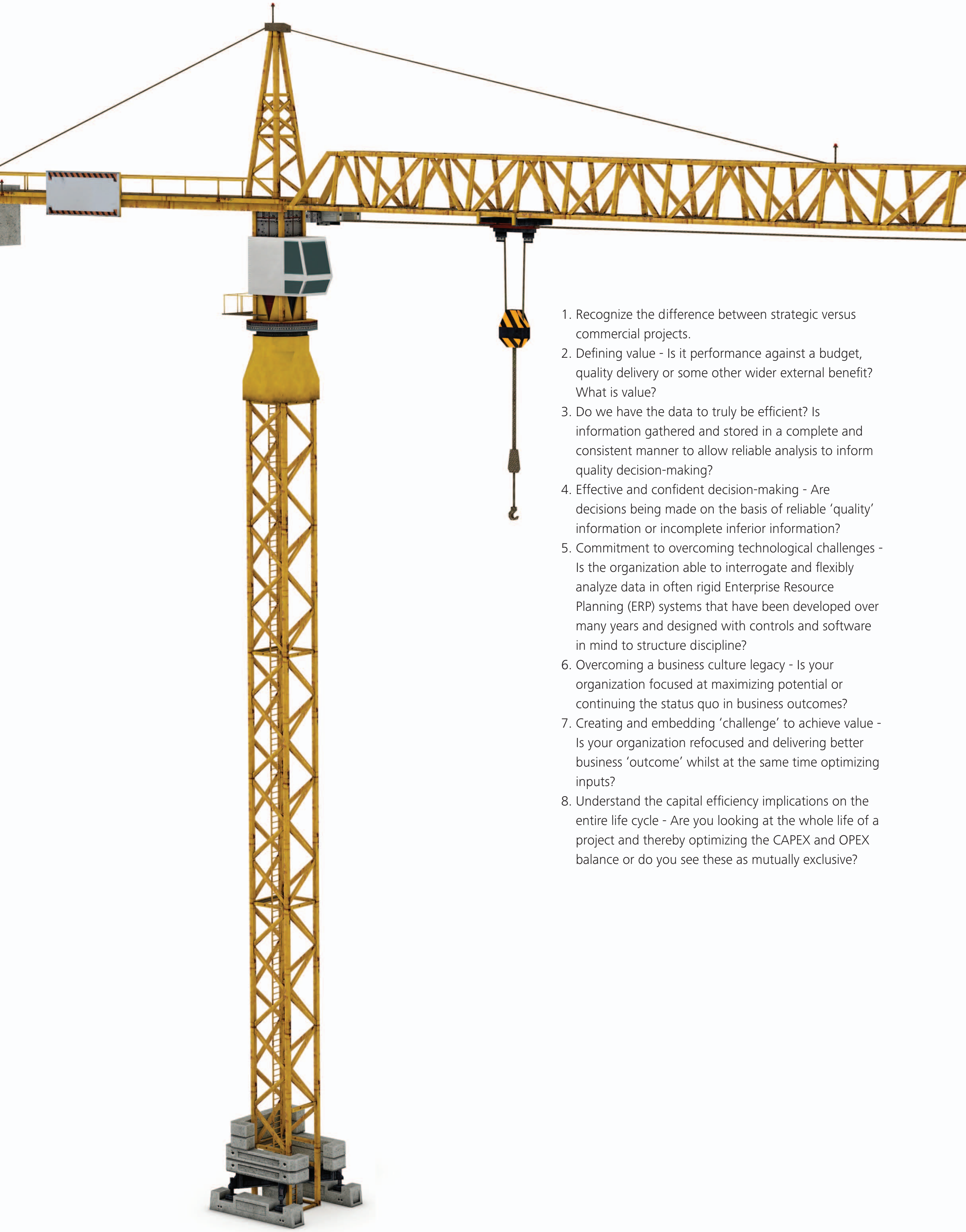
What all of the entities that are delivering capital projects in the region have in common - in addition to having captured the attention of global businesses with their jaw-dropping capital expenditure figures – is the need to deal with the challenges resultant from very compressed timetables. For some, it may be a limited-year concession agreement during which they need to begin oil refining operations. For others, it may be a rush to provide essential infrastructure for a vast population that has both social and political implications. Therein lies the critical paradigm – in their rush to deliver these large capital projects to achieve a wide range of critical objectives, are project overseers truly maximizing value or are they leaking away billions in cash that could be used for other projects?

With billions of dollars in the balance striving to achieve the optimum balance between cost, time and quality, project owners realize now is the critical time to shift towards achieving all three in the most efficient way possible.

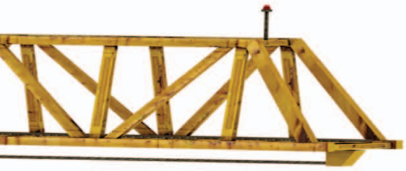
To be or not to be (capital efficient)?

Rushing to deliver projects may eliminate the most cost-effective procurement strategy, whether it be to progress with project design to a more advanced level to allow for more accurate tendering, or to limit private sector involvement through longer-term focused tendering (such as Public Private Partnerships) which can add up to 12 months to the procurement process. Can we select the appropriate procurement strategy, balancing time and funding requirements and creating private sector opportunities that will diversify the economy? Or shall we simply progress with the front-end design, reducing overlap of design, construction and procurement activities, to focus more on driving expenditure into the region's local economies? The question to answer is: do we have the ability and tools to identify, quantify and maintain value throughout delivery? Simple math would indicate that achieving even a few percentage points of efficiency will undoubtedly result in billions of dollars in savings. The answer of course is yes, but some immediate measures will have to be considered and taken before we can fully take advantage of the concept of capital efficiency.

Can we select the appropriate procurement strategy, balancing time and funding requirements and creating private sector opportunities that will diversify the economy?



1. Recognize the difference between strategic versus commercial projects.
2. Defining value - Is it performance against a budget, quality delivery or some other wider external benefit? What is value?
3. Do we have the data to truly be efficient? Is information gathered and stored in a complete and consistent manner to allow reliable analysis to inform quality decision-making?
4. Effective and confident decision-making - Are decisions being made on the basis of reliable 'quality' information or incomplete inferior information?
5. Commitment to overcoming technological challenges - Is the organization able to interrogate and flexibly analyze data in often rigid Enterprise Resource Planning (ERP) systems that have been developed over many years and designed with controls and software in mind to structure discipline?
6. Overcoming a business culture legacy - Is your organization focused at maximizing potential or continuing the status quo in business outcomes?
7. Creating and embedding 'challenge' to achieve value - Is your organization refocused and delivering better business 'outcome' whilst at the same time optimizing inputs?
8. Understand the capital efficiency implications on the entire life cycle - Are you looking at the whole life of a project and thereby optimizing the CAPEX and OPEX balance or do you see these as mutually exclusive?



Embracing capital efficiency

The values attributed to capital projects in the Middle East are nothing short of staggering and demonstrate how capital-intensive industries in the GCC are and will remain, for quite some time. Throughout the GCC region, organizations have not been able to grow effectively and organically, due to the immense pressure to deliver increasingly large and growing capital programs. Technical, commercial, financial and corporate support functions operate in silos – not by design, but because historically they have operated in this manner and they are now attempting to instill controls across this silo structure to deal with the challenges of rapidly increasing growth.

While anyone in executive management will agree that capital efficiency analyses need to occur at both the project and portfolio level (across projects), the actual planning and management of large capital projects is complex in itself, with many variables and uncertainties that need to be identified, assessed, analyzed, quantified and estimated. To truly be capitally efficient requires a complete commitment by the organization to consistently collect and consider the right inputs – accurate data and metrics, appropriately from the right phase (e.g. planned costs during early design, forecasted costs during execution, commercial and market data) to provide the right answers and to allow effective decision-making to be an output.

To truly be capitally efficient requires a complete commitment by the organization to consistently collect and consider the right inputs

Time and again in the region, we have seen an erosion of capital project and shareholder value during the execution of these major projects. In its most simplistic form, focusing on capital efficiency and value can drive alignment across myriad departments and functions in organizations – when questioned as to why this is needed, the justification for change across these same departments and functions becomes easy once everyone recognizes the answer is 'it will save us lots of money'. Effectively assessing capital value and planning capital creates clarity across the organization and supports decision criteria for the long-term benefit of the organization. It will more than likely provide organizations with the best possible chances of achieving their future objectives as they had planned: success.

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The future of EPC

Malcolm Landman

As investment in the construction sector continues to grow in the GCC, the region has become a major driver of global change in the construction industry. Driven by continued global dependence on energy, and coupled with substantial needs in the region for world-class infrastructure and industry, this massive construction spend will create increasing demands on both project owners and contractors. EPC projects in the GCC will therefore undoubtedly continue to increase in size and complexity, and project owners are now enhancing their own capabilities to execute their rapidly growing and expensive portfolios in a capital-efficient manner.

What does all this mean to the project owner? If a project's success is defined by meeting its cost and time constraints, then large capital projects are notoriously unsuccessful, with cost increases and late delivery becoming all too common. Project owners are looking for ways to change this trend and deliver large projects of a high quality on time and on budget.

What this means is, project owners are looking to "overhaul" their current project management and delivery structures. This could include a revamp on key areas of a project's lifecycle, such as:

- How projects are selected and endorsed, including making use of a comprehensive business case that considers all of the project's requirements, from inception through to commissioning and operation.
- Setting up projects for success by providing platforms to identify, define, combine, unify and coordinate the processes, activities and stakeholders required to deliver a project.
- Selecting contracting strategies that suit the available detail of project scope and specification, and provide the contractors with appropriate incentives to perform. This can also be expanded to reconsider "draconian" contract clauses that unfairly allocate risk to contractors. This may see a shift away from the traditional lump sum turn key contracts favored for EPC projects, towards cost-plus contracts with incentives for the contractor to achieve the required performance on the project.
- Investing in systems to assist in tracking and managing the contract's status and performance baselines throughout the lifecycle of the project. In a future scenario, owner operators may make use of a cost and resource loaded schedule that is updated on a weekly (or even daily) basis by the contractor – ensuring that the owner has access to "live" project performance information.

If done properly, these "repairs" will result in clear executive strategy, high levels of transparency, collaborative and integrated working practices, and the efficient use of capital and resources – all working in unison to avoid some of the common pitfalls experienced in the industry.

What about EPC contractors? Contractors are likewise seeking ways to grow their businesses while safeguarding their interests from technical, commercial and legal perspectives. As project owners are becoming more sophisticated in their management of projects, contractors are rethinking their approach. A new culture of transparency and capital efficiency will mandate new requirements of contractors that are entrusted to deliver these large capital projects. With the order books filling up and a healthy outlook for the GCC region, contractors may be required to adapt their way of doing business to keep up with the change and provide the operational and financial efficiency to match these new requirements. This may include:

- Full transparency regarding contractors' margins, which may prevent larger contractors from 'buying work' at low margins to maintain operational capability.
- Updating the systems and processes used when accounting for project costs, to provide the required levels of transparency for working in a cost-plus environment. This could have a major impact on how indirect costs (shared across multiple projects) are recorded, and result in a shift from a historical "operations-centric" approach to project delivery, to a "project-centric" approach.
- Additional investment in training and development of human resource capability and skills, to ensure the required skills are available and consistent across all projects.

A new culture of transparency and capital efficiency will mandate new requirements of contractors that are entrusted to deliver these large capital projects

The EPC landscape is changing and now is the time for owners and contractors to understand what the future will hold as we head towards an embedded culture of capital efficiency, transparency and accountability.

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Nuclear:
How to successfully deliver major projects

Andrew Jeffery

Introduction

From the outset the granting of permission to build the Arab world's first nuclear power stations in the UAE has not been without its critics and skeptics. Situated in the remoteness of the Western Region, the planned power stations will in the future generate up to 25% of the energy needed by the Emirate of Abu Dhabi.

Approval for this work was given by the UAE Federal Authority for Nuclear Regulation (FANR), the independent nuclear regulator, and the Environment Agency Abu Dhabi (EAD) in December 2010. What has resulted is one of the biggest civil engineering projects in the GCC.

Fueling this massive capital investment is a compelling economic equation that most GCC countries know only too well. On average a barrel of oil costs $5 to produce and takes around three barrels to produce this one barrel. Traditionally GCC countries have used oil to power their own industries, discounted with heavy domestic market subsidies. With oil now selling on the international markets at a 12 month average of approximately $95 a barrel, leading GCC countries are looking to lucrative export markets and turning to alternative, non-hydro carbon energy technology to fuel domestic demand. The real challenge is with many of the same countries being the highest consumers of energy per capital, the use of solar, wind, thermal and other alternatives are not enough – nuclear energy offers to fill the energy gap.

The creation of Emirates Nuclear Engineering Corporation (ENEC) was the first visible proof to the construction industry that the talk of decades was finally going to be realized. After the regulatory go ahead, prime contractor consortia from across the world bid for the contract to design, build, operate and transfer (DBOT) the facilities on behalf of the federal government. Construction started in mid-2012.

Getting major projects right

Based on our experience of highly complex projects such as these there are three critical success factors that when implemented comprehensively deliver better project outcomes. They are:

1. Setting a project up for success – The 100-day Plan
2. Supply chain optimization – Leveraging knowledge and 'know-how'
3. Intelligent project controls – Dynamic systems that allow effective, forward looking decision making

Setting a project up for success is maximized with the immediate implementation of a well thought-out, intelligent plan. Typically a 100-day plan, detailing the daily activities, key stakeholder inter-relationships that when executed in a fully integrated manner set the project on the 'road to success' right from the beginning. Too often we all witness early stage work that is unplanned, uncoordinated and poorly executed, putting the project on a poor footing from the outset – a legacy that needs to be quickly recovered from. Too often project initiation is not well thought through and not given the priority it demands. Instead 'organized chaos' often exists with the projects' 'rush to start' construction activities.

For successful delivery of highly complex, major projects 'preparation, preparation and preparation' should be a sole focus of the client and delivery teams before construction activity commences. Unfortunately the region has a variable track record of setting projects up for success with progress at any cost often higher on the agenda than planning. So what can be done….?

A typical trait we see in successful projects is the adoption from the outset of a 'first 100-day plan' approach which sets out in detail the resources and manpower needed to effectively establish the project: - the best location of the site compound / offices, early liaison with the utility providers, key permissions, permits, approvals required etc.. Unlike normal project start-up, the 100-day plan identifies the key activities and important decisions needed from the project stakeholder, e.g. request for information required, procurement of long-lead items, third party appointments and the like, and all within predefined timescales. It is micro-management at its very best to ensure everything happens in a logical and predictable way.

Within the plan, advance logistic planning is especially important on highly complex projects (access / egress / traffic flows) to minimize traffic movements, understand material delivery sequencing to maximize production. Linked to this is proactive and effective safety planning, which should focus on risk mitigation, practicalities of design development, methods of working, training and induction and risk assessments to embed a 'safety first' culture on projects from the outset. It is vital therefore that a 100-day plan is in place at the program's outset and not brought in to catch up by month three!

"Failure to plan is failure to execute effectively resulting in a higher project risk environment".

The use of an integrated 100-day plan at the outset mitigates many of these risks, as well as focusing the delivery team on the early resolution of key factors, both now and in the future, which will determine the success of the project.

Supply chain optimization - Having established and set the project up correctly, another trait of successful major infrastructure programs, such as ENEC's, is strong horizontally and vertically aligned supply chains, to ensure the right subcontractors / suppliers / partners are selected to ensure quick information flow to all needed parties, at the right time, to allow effective and timely decision-making. Effective supply chain assembly allows the successful integration of inputs across the multiplicity of construction activities to allow the myriad layers of labor, plant, material, subcontractors and suppliers to work together and deliver to a 'common plan' and thereby maximize successful outputs.

For example, the effective coordination of MEP ducting routes on structural drawings needs to be planned in advance and communicated in a controlled way to all needful suppliers and subcontractors to minimize clashes and to allow the works to be carried out in as efficient sequences as possible - for the best price, least time plus guaranteeing quality. Unlike manufacturing, e.g. car production, major construction programs are bespoke, carried out in often challenging climatic

We see leading contractors within the major projects industry devoting significant internal resources and attention to supply chain management

conditions using a variety of components, technology, resources and manpower brought together for one time on one bespoke structure, phase or project.

Good supply chain assembly and management therefore allows rapid three-way feedback, up, down and across the program's supply chain on the time, cost and quality implications of variations that can better inform client and team decision-making.

We see leading contractors within the major projects industry devoting significant internal resources and attention to supply chain management: prequalifying, assessing, vetting and retaining only those subcontractors / suppliers who have in their 'DNA' the necessary attention to detail, planning and co-operation to work seamlessly within the wider project delivery context. When this happens correctly construction activities occur like a finely choreographed ballet with elements happening correctly, just in time with little if any defects or delays. To achieve this degree of consistent delivery leading contractors will rely on robust processes and procedures to remove chance and risk in execution – allowing all members of the supply chain to input and resolve challenges and difficulties before anything jeopardizes the project and leads to claims etc...

Correspondingly where the focus on supply chain is poor, the opposite happens. Contractors without robust project control systems in place witness poorly coordinated and ill-prepared subcontractors, erratic / unplanned deliveries, installation and defects. Here works become 'staccato', pinch points occur in

When this happens correctly construction activities occur like a finely choreographed ballet

construction activities manifesting in time delays, cost escalation and quality under threat, in order to maintain and improve progress. Patent defects can often become a clear visible sign of this stress but more worryingly for clients is a legacy of hidden, latent defects that may take years to identify and resolve.

In response to the failures mentioned we are increasingly seeing leading clients requiring third party assurance services to validate time, cost and quality outputs from contractors as safeguards against the very public exposure they might face if the project fails - especially government projects that are prone to time and cost over-runs due to higher levels of scope changes.

Intelligent project controls is our final critical success factor. In that we mean an integrated, IT (enterprise) based management information and decision-making function. Despite the complexity of major projects increasing exponentially, it is surprising that the development of truly integrated contract and commercial management systems lag and differ so significantly across major contracting and client organizations. With effective project decision-making wholly dependent on accurate and timely information, problems on major schemes can often be traced to decisions made on incorrect or incomplete information. To maximize success, clients and contractors need to adopt the following mantra in the set-up and operation of their contracts project and cost management systems on major programs:

Quality project information = Quality Decision making

Whilst there are numerous document management systems available commercially for use on projects, most are limited to filing and retrieving. What highly complex, fast-moving projects need is a much more dynamic, integrated cost and financial system that can, amongst other things, report project commercial information in 'real time' with integrated links to purchasing, procurement and buying data, allowing multi-field entry in the system by the various functional contributors as their activities are undertaken, providing rolling forecasts of current costs to complete, cost impacts of contract change, risk modeling, payments and all via easily understandable dashboard reports.

Whilst some systems exist that address these interactions, our experience is that most have been developed bespoke by clients to answer their own needs. One leading international bank, for example, uses one such platform for its global capital projects portfolio that allows its CFO to understand at the click of a button the financial and contractual position of any one of his projects 24/7. To do this, a dynamic and integrated, often web-based platform is required that allows information stored within separate databases to 'talk' to each other, allowing continuously updated project data, across projects and locations.

With leading clients, we are increasingly seeing these being linked to their corporate finance systems to drive real business performance improvement to enhance shareholder value.

The most efficient systems actively link the program Work Breakdown Structure (WBS) to the contract cost build-up, which in turn would provide interactive data to the material procurement team – who for instance may be procuring long-lead items way ahead of any subcontractor procurement or site activities. The ability of such systems to combine activities and outputs of the varying functional parties and to log current, real-time commercial and schedule performance is clearly significant over traditional, historic reporting and a strong competitive advantage in increasingly marginal markets.

In contractual terms, the system can be structured to map the obligations and duties under the contract, for example the agreement of variations (VO's), by providing secure login-in portals to all decision-making members of the delivery team (contractors, consultants and clients) that allows electronic information review and subsequent approval, thereby reducing the risk of things being missed. Already many of the commercially available systems on the market include email and SMS alerts to users to inform them when they are needed to make decisions. Overall, therefore, we see growing interest in major programs looking to utilize this technology that provides '1VT' or one version of the truth history of the performance of all parties. Clearly this remote flexibility is especially advantageous when project stakeholders are spread across the globe.

Accordingly, it is clear in our experience that the better the project information mapping is, the more dynamic the IT systems are to exchange and interpret data, and the deeper the quality of information is. Added to better project initiation planning and supply chain management, the enhanced information and control

Project initiation planning and supply chain management, the enhanced information and control provides a more robust environment for decision-makers

provides a more robust environment for decision-makers to make more informed and timely decisions to optimize successful project outcomes.

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Upstream downstream: Facing the oil challenge

Thomas John

Background

Oil and gas companies are increasingly facing growing risks and uncertainties in today's global marketplace. These risks range from volatile commodity prices, increased health, safety and environmental pressures, and changing regulations to construction delays or cost overruns on large construction projects – are all commonly seen in today's industry.

Since the late 1990s, the industry has undergone significant structural changes that have squeezed its profitability requirements, challenged its ability to provide stable product volumes to the end market, and to adapt to current and future environmental needs. Mergers, acquisitions, and joint ventures characterize the industry today and have changed its ownership profile, altering concentration patterns both regionally and nationally. The change of business model, from that of an integrated structure to that of a stand-alone profit center, has focused attention on earning competitive profit rates at each stage in the production chain.

Companies are increasingly under pressure to earn better than market rates of return for investors to fund needed investment in expansion, technological improvements, possible business restructuring, and to meet increasingly environmental regulations. Additionally the search for new fields is getting harder and oil and extraction more costly.

Continued major investment is the only viable option

Today, most countries and oil majors are not only investing in existing facilities but increasingly exploring outbound investments both in upstream and downstream O&G sectors to secure their future energy needs and interests while conserving their own natural resources. For instance, the African, Central and South Asian sub-continents are seen as potential investment opportunities with sizeable estimated reserves available for extraction.

The how

The construction of an oil refinery is a complex process and requires a great amount of feasibility work and planning prior to its commencement involving a variety of senior management, operators, contracting and service companies as well as vendor. All must be focused on operational optimizing of oil and gas projects and in so doing maximizing profitability whilst managing the risks associated with their contracts. Whether offshore or onshore platforms, floating production vessels, or other O&G facilities, risk concerns are getting more attention as pricing becomes ever more competitive.

Many contractors are uncertain about the unfamiliar contracts used in different countries, costs of local labor forces and risks involved in using local vendors. Risks are greater for projects in West Africa and South Asia, where concerns include local political uncertainties as well as labor, material handling and other field logistics.

It is hence very critical that the preparatory work during the FEED stage is conducted in detail to understand amongst other things - the main equipment needed to produce the desired refined product outputs, the capacity of the host country in terms of supply chain, and to develop strategies to mitigate and manage any resultant gaps.

So what characteristics should be reviewed when assessing and measuring the economic performance of a petroleum refinery?

1. The production process is highly capital intensive and technological improvements are necessary on a periodic basis through investments in the basic refining process infrastructure. As a result, any event that may affect the availability or allocation of capital investment can have significant impact on the project and the investor. Costs of special equipment, overhead expenses, project delays and the like can cost the operator huge losses in production revenues as well cost overruns.

2. Next is the variable cost of the crude oil itself, as determined in the global market. While labor and other variable costs are relatively small fractions of total costs, a disproportionate amount of attention is given to minimizing them in the interests of enhancing profit margins. Clients should 'stress test' all their feasibility models to allow for ranges of price volatility.
3. Equally, the sales price of the refined product are volatile so effective feasibility reviews must stress test across a range of end market sales.
4. Lastly, regulatory costs, both capital and operational, required to meet mandated environmental standards on both refined products and refinery sites, increase costs significantly and are highly dependent on geography.

The look-outs

1. Most contracts for engineering, procurement and construction (EPC) of O&G facilities are complex commercial agreements, however most incorporate change and variations mechanisms. Accordingly design deficiencies, scope changes and delays in the field conditions, technological developments will quickly jeopardize capex allowances and impact on opex matters.
2. Equally a contractor may fail to recognize when a change occurs, and the operator may not accept that an adjustment to the contract is warranted, again increasing the capex.
3. EPC contractors and their vendors may not correctly inform the operator or project owner that changes have occurred or fail to comply with certain contractual clauses and may fail to keep a record necessary to demonstrate that these changes did indeed occur and had an effect on time and costs. As well as of increasing the capex, delays and claims invariably accrue.
4. Finally we often notice the failure to provide specific cost codes to capture labor, material and equipment costs associated with the changes. While many EPC contractors and vendors have cost systems to capture the obvious direct costs of changes, most do not capture indirect costs and these may be substantial. For example, engineering hours are rarely tied back to field change events, which may result in enormous engineering hour overruns being incurred.

The construction of an oil refinery is a complex process and requires a great amount of feasibility work and planning prior to its commencement

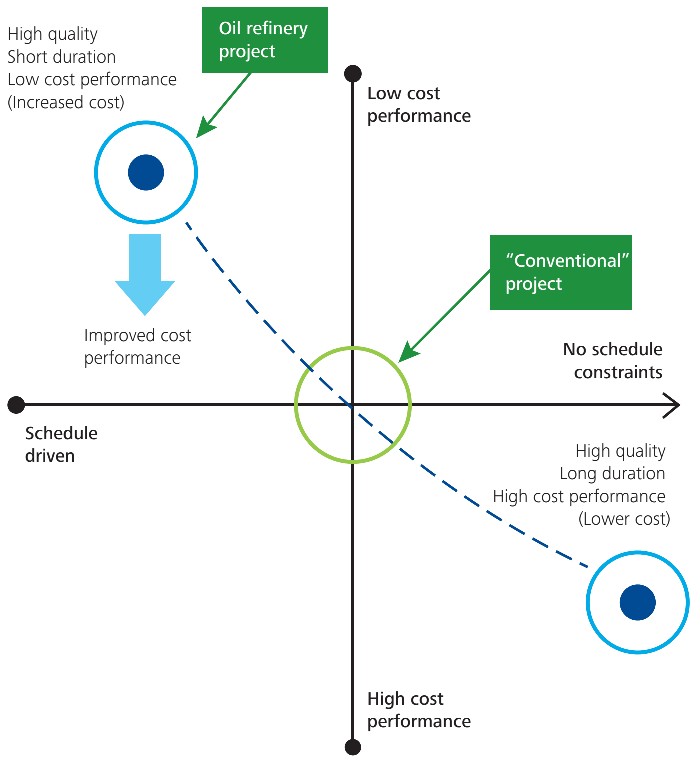
The relationship between quality, schedule and cost

Project performance is impacted by the relationship between schedule (time), cost and quality. If a project requires high quality (as is the case with oil refineries), the project schedule and project cost become variable – i.e. high quality with time constraints (schedule driven) results in higher cost (reduced cost efficiency).

In a recent engagement with a major O&G client, there was a requirement for their project to progress quickly due to schedule constraints. However, Deloitte noted that this resulted in reduced cost efficiency, which led to the need to protect the projects budget by improving the project's cost performance through the implementation of enhanced cost controls to assist the client in stay within the costs and budgets of the project. Specifically, Deloitte assisted the Client in the following areas:

· Consistent cost forecasting by the project team, to assist the client in understanding possible cost overruns before they happen
· Change control system whereby any issues that could have a possible cost impact where shared with the projects commercial / cost control team, to assist them in tracking possible changes to the project's cost

If a project requires high quality, the project schedule and project cost become variable



Recommending a system whereby the contractor takes greater ownership in the forecasting, and works cohesively with the client, to keep the client informed (greater teamwork). This last point was done through workshops whereby the contractor was given a platform to comment on and improve the existing cost processes implemented by the client.

Given that the current tough economic environment is likely to remain for some time, most contractors will undoubtedly look to exploit changes in the above as a way to recover additional time and cost as a result of schemes either changing during the process or delayed due to design gaps / inefficiency not rectified within the feasibility development.

In summary, the only fully safe mitigation in the delivery of highly complex oil & gas projects delivered in challenging geographies is to devote more time to pre-feed activities, stress test feasibility models to reflect the volatility of the major data and ensure design shortcuts do not happen.

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Project assurance: Effective project commercial management

Randa Al Sayegh

Introduction

Almost every month a multi-million dollar project gets awarded to one of the big contracting companies in the GCC, but how often do these projects get completed within budget?

Most of the developers have fit for purpose project management policies and procedures. However, the absence of a robust project assurance framework and an integrated project management platform, which are essential to consistently monitor project cost, limits the effectiveness of these measures.

In our observation, many departments involved in the delivery of projects seemingly operate in silos and therefore do not truly support end-to-end delivery that is expected of both their own boards and that of the region's leading developers. Systems and commercial practices related to project management vary between departments and projects and limit the visibility of contractors' progress and areas of 'value leakage'.

From our experience of working with the region's top clients, the following major commercial pain points are seen only too frequently. Accordingly, we discuss these symptoms together with our easy top tips to mitigate These:

Control budget

The lack of a detailed and comprehensive control budget based on a standardized Work Breakdown Structure (WBS) and cost breakdown structure necessary to capture cost data invariably leads to inadequate progress monitoring, cost control and inaccurate projections of estimated cost at completion. Moreover, the contingency amount allocated in the budget for unforeseen conditions / events is often a fixed percentage of the total project cost and usually turns out to be insufficient for covering the risks associated with the project.

Mitigation tips:

1. Fully aligned WBS and cost breakdown structure.
2. Detailed control budget that reflects a comprehensive classification of project scope.
3. Allocation of contingency based on risk assessment and industry norms.
4. An integrated project controls system.
5. Robust cost management reporting system.

Payments

Problems often occur when the payment process is subjective and inconsistent, i.e. is not based on predefined milestones or inspection points to allow for proper assessment of contractors' payment applications. This usually results either in underpayment to contractors, which may impact the progress of works and trigger claims and disputes, or in overpayment, which may impact the Client's cash flow and financial position.

Mitigation tips:

1. Accurate ascertained payments of completed works.
2. No payment for material off site and / or defective work.
3. Consistent approach of back charging contractors.
4. Accurate assessment of final account and projection of estimated cost at completion.
5. An integrated project controls system.

Scope changes

Due to the often enormous number of scope changes during the execution of the projects in the region and the lack of integrated project systems, contractors are usually unable to reliably capture, track, manage and accurately assess their impact on cost, which leads to inaccurate progress measurement and cost forecasting.

Mitigation tips:

1. Project design is sufficiently complete prior to commencement of construction works.
2. Design freeze during construction phase.
3. Early and effective impact assessment of scope changes on time and cost.
4. Robust change control management system.

Almost every month a multi-million dollar project gets awarded to one of the big contracting companies in the GCC, but how often do these projects get completed within budget?

Despite the availability of many powerful 'off-the-shelf' cost management tools in the market, cost reporting is still a manual process that is subject to data manipulation, erroneous and late reporting

Variations
The accumulation and often late assessment of variations due to shortage of capacity in the commercial team and late approval process usually results in inaccurate progress measurement and cost forecasting, late payments to contractors for the work performed, and delayed close-out of accounts.

Mitigation tips:
1. Early assessment of additions / omissions against contractual entitlements.
2. Robust change control management system.
3. Early warning flags.

Prolongation claims
The lack of a reliable and complete audit trail to assess / resolve claims and the lack of proper assessment by independent third party subject matter experts often results in contractors entitlements to significant amounts of additional time and cost which delay the project, exceed the baseline budgets and negatively impact on profitability and reputation.

Mitigation tips:
1. Early engagement with contractor to negotiate contractual entitlement.
2. Accurate and contemporaneous records need to be maintained.
3. Early involvement of 3rd experts on complex claims.
4. Early warning flags.

Cost reporting
Problems often exist in cost reporting where there is an inability to integrate, track, roll up and drill down cost, schedule and performance data from lower elements up to the project level. This is invariably due to the lack of a standardized WBS to be followed in reporting, which results in poor visibility and control, inconsistent analysis / comparisons and cost reconciliations.

Moreover, despite the availability of many powerful 'off-the-shelf' cost management tools in the market, cost reporting is still a manual process that is subject to data manipulation, erroneous and late reporting.

Mitigation tips:
1. Set up of an integrated project controls system properly at outset of the project.
2. Well-structured and automated cost management reporting system.
3. Early warning flags.

Effective project assurance framework for efficient delivery of the capital program
In summary, to achieve effective and robust operational standards in line with best industry/leading practice, all contractors and employers should have access to the following information and business knowledge at any time during the project execution:
- 'Where' will the organization be spending the money;

- 'When' will the organization be spending the money; and
- Early warnings to allow for 'informed and timely' corrective action.

Our in-depth project experience working for many of the region's leading clients tell us that this can be achieved by implementing the following methodologies during project execution:

- Standardized and comprehensive WBS and cost breakdown structure
- Detailed control budget
- Integrated project schedule
- Standardized and consistent approach to Earned Value calculations
- Validation of contractors' progress by inspection points / milestones
- Timely impact assessment of scope changes on cost baseline
- Robust risk identification, quantification and mitigation process
- Automated cost data capturing, processing and reporting
- Robust document control systems

If any of these points are absent then failures invariably occur resulting in misleading information that might negatively impact the Client in making informed decisions and subsequently leading to project delays, cost overrun, negative impacts on profitability and reputational damage.

This improved information provided throughout the capital project life cycle will allow the project team to focus on the corporate strategy: working towards exceeding target objectives

When these improvements are implemented collectively, capital project delivery capability can transition from a fractured structure operating in silos to a model with integrated project teams and information. This improved information provided throughout the capital project life cycle will allow the project team to focus on the corporate strategy: working towards exceeding target objectives.

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Project assurance:
Leaders, SACK your management for ineffective project reporting

Ghazanfar Shah

With ever increasing demands on your time, can you really afford for management to not respect yours?

Time – Friend or foe?

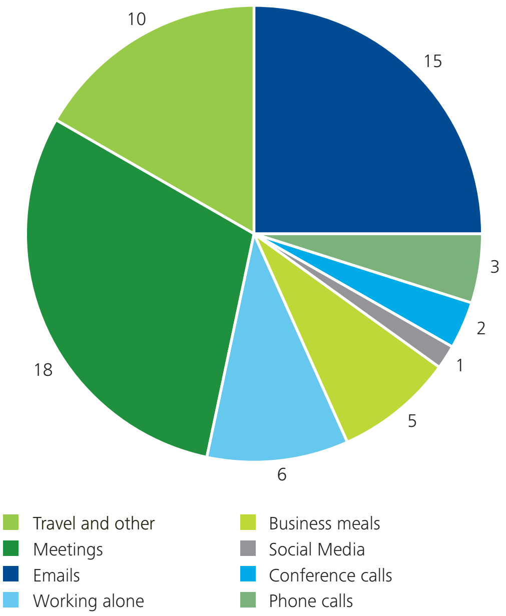
"Time is what we want most, but what we use worst,"says William Penn. In today's fast paced, 24/7 smartphone connected/glued to the hand world, effective time management, especially for champions of industry, is a challenge. Add to this the increasing attractiveness of social media such as Facebook, Twitter, and LinkedIn, and we find ourselves constantly connected and accessible whether we like it or not! Time and time again (pardon the pun) senior management and directors share with us that their biggest challenge is keeping abreast of critical aspects of their business(es) and how they can filter through the mounds of documents, emails, and reports they receive to determine what requires their immediate attention.

The stats don't lie:

This does not come as a surprise when one looks at the most common demands on senior management's time during the span of a day. According to a survey on email statistics, managers receive about 100 to 120 emails and send 30 to 40 emails a day. The more senior one is, the more likely this number is to double as one gets copied on a lot of emails as well. What this means in practical terms is that even if you spend just one minute reading or responding to these messages, it equates to more than three hours of your time on a daily basis!

The chart shows what our discussions and general statistics show are the most common demands on the time of our clients (comprising mostly of Senior Management and Directors) during a 60 hour work week that includes traveling for board meetings. After meetings, that take up almost 30% of their time, our clients spend approximately 25% of their work week reading/responding to emails and reviewing important project management reports (including board committee meeting reports). If you combine meetings,

Average hours spent in a 60 hour week



email/document reviews, and travel time, our clients only have 30% of their time to devote to the other demands of business. This creates a huge risk as they are unable to review all the various project reports for timely / corrective actions, thereby having to rely on management to report what they feel is critical. This results in key issues and problems slipping through the cracks, resulting in losses that cost millions to rectify. Imagine the benefits a 1% or 2% increase in this alone time would do for the productivity of the business through timely decision-making!

Effective project reporting – Just a fancy term or an essential necessity?

As we advise our clients, the success of any project is dependent upon effective project management achieved through a two-pronged approach: Proactive Planning, and Efficient / Effective Project Reporting. Our discussion today centers around effective project reporting which, as you may have guessed already, in today's fast paced, information overload world, revolves around creating an environment where time is valued and respected.

Our advice to our clients is similar to the "2 minute" rule for emails being used effectively around the world: create an environment whereby project reporting is articulated in one-page reports that allow you to have all the critical information for each project at your fingertips. We have assisted numerous clients create one-page project reporting dashboard tailored to the nuances of their business and decision-making processes. If it doesn't make it to that one-page document / template, it is either not relevant, or in management's mind it is not important enough to be brought to your attention. This allows you to substantially reduce your time reading detailed project reports and just focus on what the key KPIs, status updates, and action items are. More importantly, this also allows you to hold management accountable for what is reported and what isn't, and for approvals they seek at regular intervals. Detailed reports should only accompany the one-page report as appendices to enable you to dive in deeper if, and when, certain KPIs deviate from what management had reported earlier. Accountability, as you know, brings the best out of your team as the case study below demonstrates.

Case study:
We were engaged by one of our clients to determine;1) why the majority of their projects / investments were unsuccessful and, 2) why most major project issues were not being reported to them. Our study, and subsequent results, surprised them. All the issues impacting the success of their projects /investments had been reported to them but through detailed project reports, which they had failed to read / review due to constraints on their time. Furthermore, these issues could have been easily mitigated from the outset had they been reported in an effective and timely manner, as opposed to being overlooked causing substantial losses requiring subsequent mitigation. The fact that they could have had an impact on the success of their projects / investments through effective project reporting motivated our client to implement our suggestions on current and future projects. The lesson learned, and the message we delivered was simple: "SACK your management!"

These issues could have been easily mitigated from the outset had they been reported in an effective and timely manner

SACK© your management:
Now that I have your attention, let me be clear that this doesn't mean that you need to fire your management. SACK is an acronym encapsulating a four-point solution

for efficient and effective project reporting that has been developed by us specifically to assist our clients work towards achieving success on their projects / investments:

1. S = "Stipulate": Stipulate the requirements for effective and efficient project reporting, including the frequency of reporting. Make your management respect / value your time as a one-page dashboard can be read easily on your phone, on your drive to work, or even on the plane ride for a board meeting.

2. A = "Appoint": If your management was capable of creating succinct invaluable reports, you probably wouldn't be reading this article. This is where the benefits of appointing experts, who can share their experiences and knowledge with you, is vital as it can make the difference of saving millions of dollars that might be incurred if the issue is only identified at the more advanced stages of a project.

Successful project reporting needs to not only be efficient but also need to be effective

After all, a report is only as good as the information used to compile it (the "Garbage In-Out" phenomenon) and an independent advisor can help you overcome this challenge by assisting you and your management validate the integrity and adequacy of project reporting from your project managers and consultants.

3. C = "Collaborate": Collaborate with your management (and advisors) to work hand in hand in determining the project KPIs, updates, and the format you would like to see the critical information being presented. For example, clarity on high level analysis of risk and opportunity dashboard. This is where your input is most valuable as, let's face it, you are the end user!

4. K = "Keep monitoring": As with everything else, there is no value addition if there is no subsequent monitoring. Keep monitoring the reports to see what is being reported, what was reported last time, what is missing, and what needs to be done to improve the reporting and decision-making process. As we advise our clients, there is no end-for-all template; in a continuously evolving business environment and given the changing nature and scope of projects, you need to keep monitoring to remain abreast of changes that will allow you to adapt your reporting mechanisms and protocols to remain head and shoulders above your competition.

Success means mastering your time:
As mentioned earlier, successful project reporting needs to not only be efficient (page templates that are easier to create and subsequently digest) but also need to be effective i.e. need to capture all relevant and important information. This is the area where our clients find the most value by employing financial advisory firms like ours to assist them with dissecting their business and reporting procedures, identifying inefficiencies, determining relevant KPI's, tracking of issues reported last time vis-à-vis updates, and creating effective reporting protocols bespoke to their projects / industries.

Streamlined reporting allows for quicker reporting and is easier / quicker to digest. It also frees up your valuable time allowing you to focus and discuss the projects that are not on track and require more attention. However, the time saved also means that you probably have sufficient time to cover all projects! For large infrastructure spend projects currently on-going and/or planned for UAE, Qatar and Saudi Arabia, implementing effective project reporting protocols can mean the difference between success and failure. If you start right, you will finish strong!

To sum, Alan Laiken's words on time management echo true for effective project reporting: "Time = life; therefore, waste your time and waste of your life, or master your time and master your life." So, master your time... SACK your management!

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Supply chain:
Issues on assembly in new markets

Ketan Bhoola

The Middle East has always been an attractive proposition for foreign investors, gathering the attention of many who have considered either establishing companies or entering into joint ventures with local companies to capitalize on the region's growth opportunities.

In recent times, two countries in the Middle East, or more specifically in the GCC (Gulf Cooperation Council) region, have raised their profiles to investors by planning multi-billion dollar spends in just about every sector related to their built environment. These are Qatar and the Kingdom of Saudi Arabia.

As is commonly known, Qatar won the rights to host the FIFA World Cup in 2022. This small energy-rich country in the Gulf will see billions of dollars being spent in all sectors of its economy in the build-up to 2022, which will include:

- Renovation of existing stadiums as well as building of new venues at a cost of $4 billion[1]
- A $25 billion rail and metro transport infrastructure plan, originally planned for completion in 2025, could be rescheduled to meet the deadline for the 2022 World Cup[1]
- A $20 billion road investment program[1]
- 65,000 hotel rooms, required by FIFA to host the 2022 World Cup[1]
- The new $11 billion Doha International Airport[1]
- The $7 billion Doha Port[1] Etc.

The Kingdom of Saudi Arabia still stands as the largest construction market in the Middle East with multi-billion dollar projects by both the public and private sectors under way and many more in the planning stage. This has attracted considerable foreign direct and indirect investment by those wanting a share of these projects, valued at over trillions of dollars.

This begs the important question of what key considerations companies and investors need to be mindful of to effectively manage their supply chains in these growing markets. Furthermore, are they aware of the critical requirements relating to the supply chain market in these countries?

Deloitte has been actively involved in assisting key stakeholders (including government bodies) with the delivery of the large/mega programs in the GCC region. For example, some of the services offered in the initial stages of program delivery included the setting up of the strategic program management office function, to ensure the effective strategic execution and operational excellence for the enterprise program delivery. As a direct result, we are seeing increased activity and interest from companies and investors requesting our guidance to assist them in better understanding and intelligently engaging with the domestic supply chain market that is critical to their survival and success. Below are some of the key points/factors we always ask our clients to help them get a better understanding of the fluid dynamics of supply chain management in these growing economies:

1. Financial

The current uncertainty and volatility in the global economic environment has brought with it a new dimension to managing the supply chain, especially in the growing markets of Qatar and KSA. The financial components relevant to effectively understanding the supply chain would include:

- External factors: Suppliers based in their own countries, with stations in new markets, encounter financial problems such as reduced cash flows, reduced working capital, lending covenants that may no longer exist, reduced or limited access to credit and insolvency or bankruptcy. Customers without visibility to significant supplier financial issues are likely to be impacted themselves.

- Internal factors: New markets require products and labor on demand to meet production targets. This brings with it a new or higher level of complexity. Cost premiums could result from elements such as location, limited supply options for parts and labor, and limited negotiation leverage. These premiums can come in the form of supplier mark-ups, high wages and retention bonuses for labor, inflation and switching costs between supplier products. Getting good, long-term supply contracts in place and managing the performance of those supplier contracts remains a challenge if not handled proactively.
- Exchange rate volatility: Variables such as exchange rates, competition, and rising commodity prices all represent financial considerations in contracting for supply. The ability to manage the nature of the supply chain means those who can effectively manage contracts and their inherent financial risks in both upturn and downturn markets are more likely to succeed. While Saudi Arabia and Qatar have their local currency peg to the dollar, proper risk management, exposure to and implications of hedging, futures or even the cost of borrowing in the home market needs to be fully understood.
- Tax considerations: Most new markets may appear to be attractive by offering significant tax reductions and/or tax exceptions. However, a deeper understanding by the investor is still required so that he/she is fully compliant with the applicable local laws and regulations. No one understands this more than the Deloitte team, which has a dedicated Tax department with a tax professional to analyze scenarios and the ability to provide pragmatic solutions to these complex business issues. The Deloitte International Tax Source (DITS), which is a comprehensive one-stop shop for international tax rates, information and analysis key to doing business in a cross-border environment, and currently covers 65 jurisdictions worldwide, does provide assistance and considerations for most new markets.

The current uncertainty and volatility in the global economic environment has brought with it a new dimension to managing the supply chain, especially in the growing markets of Qatar and KSA

2. Regulatory

New markets bring with them new challenges including continuously evolving local regulations and changes in local laws. It is common that laws change more frequently than expected in these "frontier" markets, as they are sometimes known. Participants in more mature economies will need to keep abreast of these changes and ensure that they have adequate response plans in place to ensure the necessary compliance. Timely and accurate tax information can have an implication for companies wishing to optimize their multinational structures. These structures must be alert to the opportunities (and risks) afforded by the various holding companies and are considered by many as an evolving minefield if not understood and monitored closely.

3. Operational

Unfamiliarity of market: At the best of times, obtaining secure and reliable sources of supply can be fraught with operational challenges throughout the supply chain. In new markets, this can be even more challenging due to unfamiliarity with the market, no existing relationships or alliances, etc. The result: the most critical parts are not on hand at all times, resulting in the high opportunity cost of a downtime.

New entrants need to be familiar with and sympathetic to local ways of doing things and see this as both a risk and an opportunity

Vendor selection: In many cases, companies may have limited supply choices in new markets. Among suppliers where there are wider alternatives, companies would be forced to look at second or third choice vendors because their preferred supplier cannot meet current demand. Such sourcing decisions are accompanied by greater supply risk as these suppliers may be less viable, less reliable, and could potentially be lower performers.

The importance of entering into complex and creating deep relationships across the supply chain will most likely lead to stronger supply chains, higher pay-outs, and, long-term more promising business paths in the future. While most view this process of building relationships to be daunting and time consuming, we advise and will continue to assist our clients to use this as a springboard for an efficient growth mechanism of the supply chain and ultimately resulting in establishing security on key deliverables to secure the project's critical path.

Transportation challenges: New markets may not have the necessary infrastructure that an effective supply chain requires or companies/investors may be expecting. Transporting the supply of both products and labor to a site in a new market often involves several modes, airport and port facilities with many handoffs. Accordingly, we advise our clients on the many points of failure where delays can occur, caused by anything from logistical issues to environmental problems (e.g. weather conditions).

4. Geopolitical risk

In today's global environment, we can expect supply lines to often extend across a number of sovereign lines. As a result, actually getting supplies from the source to the end user can require a journey that crosses multiple jurisdictions each with different regulations and approaches to doing business. These various political and social environments can in turn drive changes in regulatory conditions, potentially altering the level and timing of the supply chain. Transport and regulations surrounding the movement of products internally should not be taken for granted in these markets. Far too often we see the impact of travel distance from the entry point (port or airport) to the end user taking longer than expected and often with complicated border / customs mechanisms.

5. Developing local alliances

What typify many new markets are the local on-going alliances and relationships that exist. Being a new entrant requires an intelligent way of 'making friends' to dissolve old ones and create new ones to their benefit. These alliances can take on many forms from assisting in the formation of the local entity, forming joint ventures and/or strategic relationships.

6. Understanding local culture & practices

New entrants need to be familiar with and sympathetic to local ways of doing things and see this as both a risk and an opportunity. From our experience, companies that employ a good level of locally experienced staff get earlier and better market tractions to those flown in to establish operations. Understanding the local practices, regulations and cultural norms is essential to earliest integration and leveraging of opportunities when they present themselves.

7. Managing risk and opportunity

A significant issue is the understanding of risks in a new market and the exposure you will be under. New markets typically have immature contractual / legislative safeguards, with unlimited liability, being common.
Far too often people sign up through ignorance and lack of consultation of people that know, understand and most importantly work and are based in that market.

8. Corporate and social responsibility issues
Some of these markets are facing greater pressure from international bodies for greater compliance and adherence to the UK BCA legislation, and the rights of workers employed in these markets. These factors need to be considered in the supply chain as the reputation risks for non-adherence could have an impact.

In summary
Supply chain assembly and optimization is critical to the success of business in these new markets. Indeed, we may even go as far as saying that these countries' visions will only be achieved if the related supply chains are efficient and effective. Our advice to outside investors/companies is by using the in-depth experience Deloitte FAS has in these areas we can provide 'real time', professional guidance on localized programs to address all issues related to their supply chains. In order to achieve this, we stress that a deep understanding of local customs, culture, laws, regulations and infrastructure is needed. The ability to understand and evaluate the supply chain in the context of the new market is vital to detecting and mitigating supply risks before there is an actual impact. In other words, in the context of global demand, a professional localized view is needed to implement a successful supply chain in a new market.

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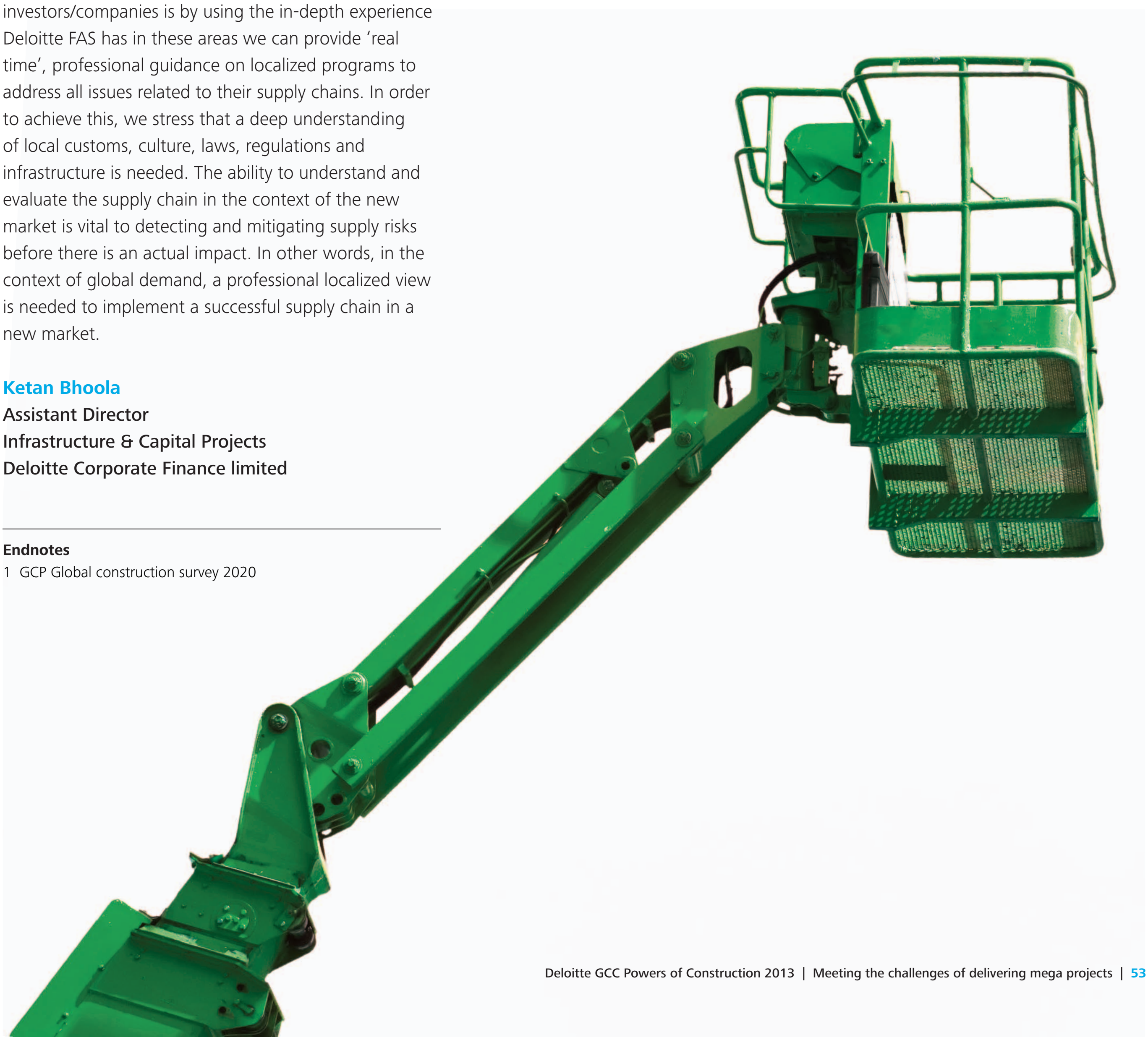
Endnotes
1 GCP Global construction survey 2020

In the context of global demand, a professional localized view is needed to implement a successful supply chain in a new market



Supply chain: A chain reaction

Sheldon Morris

Introduction

As the Middle East construction industry 'splutters' back to life after close to four years of relative drought and chronic restructure, many within the industry are acutely aware of the risks associated with a sharp uptake in construction output and the need to foster strong strategic ties with the broader supply chain to maintain an acceptable measure of performance to support sustainable growth.

Much of the Middle East construction industry has yet to reach a level of maturity that supports the development of a sustainable supply chain/s and has therefore not experienced the full value that such strategic partnerships are able to deliver; more critically, the size and complexity of the region's current capital project pipeline is arguably of a scale the world has never experienced and the question remains, is this ambition nothing more than a 'desert mirage'?

Fortunately for the region, the conundrum of developing vast swaths of complex infrastructure within critical timeframes and challenging budgets is an area where parts of the industry has excelled in recent years. Much has been written about the successes of capital programs such as BAA's Heathrow Terminal 5 and the London 2012 Olympic & Paralympic Games, both of which have become centerpiece examples of how, when done well, the power of an effectively managed supply chain can redefine the boundaries of possibility. As a participant in both of these projects, I have firsthand experience in the creation and management of two of the most recognized supply chains in the world that successfully integrated hundreds of businesses and tens of thousands of operatives around a set of well defined objectives that insured collective success and improvement for all who were involved and has firmly established a legacy of excellence in delivery. With the upturn in construction activity across the region it is not surprising that many within this peer group have found their way to this part of the world. What's frustrating, however, is the lack of interest from employers / clients to take advantage of the lessons learnt and apply them to the current industry challenges.

What follows is a high-level perspective on industry standard supply chain management and is offered as a catalyst to encourage further enquiry and dialog:
The discipline of supply chain management within the manufacturing industry is well established around the world - more and more owners and contractors within the construction and infrastructure space are starting to reconcile the benefits of an effective supply chain that focuses on the strategic alignment of corporate goals and objects that underpin the competitive advantage of the collective.

The main types of supply chain can be characterized as follows:

- Transactional based - competitive bids
- Transactional - long-term agreements
- Alliances - loose knit, informal group
- Partnering - long-term relationship based upon mutual objectives
- Integrated supply chains - suppliers work in clusters within a formal partnering arrangement

The industry standard supply chain management process generally maintains two principal focus areas, namely the 'procurement phase' and the 'manage and develop phase'. Within the former, the principal entity primarily works towards establishing the following:

Procurement phase

During this phase, it is important to analyze the key or strategic areas of supply, understand what the marketplace can offer, and identify one or more supply partners in each supply area. Typically, the supply chain leader/s would endeavour to collate comprehensive market data that sufficiently establishes definition around the following principles:

- How is the marketplace structured?
- What is the supplier base?
- What type of relationships could be supported?
- Identify and incorporate business objectives into the procurement process
- Match contract terms to business objectives

Manage and develop

The objective of this phase is to manage and objectively measure the performance of the integrated supply chain. Much of the activity is focused on driving continuous improvement through the four channels:

- Supplier development
  - Company to company
  - Long-term relationship
  - Clear business objectives
  - Measured & managed performance
  - Backroom and frontline functions included
- Team develop
  - Focused on project team
  - Short or long-term relationship
  - Project based objectives
  - Measured and managed performance
  - Generally frontline functions only
- Supplier evaluation areas
  - Price robust and value for money
  - Product is right for the purpose
  - Management systems, communications & people
  - Delivery so that what is required is delivered
- Tracking areas
  - Development of key performance indicators (KPIs)
  - KPIs measured against targets
  - Value improvement plans that plan to deliver improvement against SMART targets
  - Reporting information - useful information that isn't used to measure performance

At Deloitte we pride ourselves on providing our clients with best-in-class supply chain solutions that consistently transform the fortunes of their businesses and those of their investors

Success factors of the integrated supply chain include:

- Understand customer needs
- Measure performance
- Commercial framework - contract, pricing, and risk/reward
- Incentives
- Quick and cost effective access to dispute resolution
- Managing change – establishing the understanding that it requires people to change values and behaviors, leadership focused on results and continuous improvement
- Leadership that is motivated to provide the best resources and who are fully committed
- Shared goals that include cross company understanding and communication

At Deloitte we pride ourselves on providing our clients with best-in-class supply chain solutions that consistently transform the fortunes of their businesses and those of their investors. We would welcome an exchange to share the extensive knowledge and know-how we have in this area.

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The future is five dimensional

Zane Hedge

Introduction

Unless you have been living on a desert island, or perhaps you have been fortunate enough to have been travelling around the world on a sabbatical for the past two years, then you would no doubt have seen many headlines about Building Information Modeling or BIM.

To some the headline may have simply passed you by as you are involved with projects where BIM is being considered or perhaps already being utilized. However, to many this development marks a sea change in the design, procurement and construction of projects and these same people, no doubt, have severe concerns with respect to how BIM will affect them.

Irrespective of whether you are an experienced BIM practitioner or a complete novice, BIM does pose certain challenges and it will come as no surprise to some, that even people who think they are utilizing BIM are actually not.

In the post global financial crisis era we are all under significant pressure to increase efficiency and reduce costs

What is BIM?

Like many forms of construction innovation, the term BIM was first used in the United States of America (USA) by an American architect, Phil Bernstein. He later went on to become the vice president of Autodesk, one of the companies who were at the vanguard of BIM software development and implementation.

For many people within the construction industry, BIM simply means 3D modeling. 3D modeling is not new, having been used by industries such as oil & gas for clash detection and MEP coordination for many years. BIM is much more than this; it is not an event, it is not software and it is not a language. Put simply, BIM is the collaboration and sharing of standardized information across the full lifecycle of a project. Yes it does utilize a 3D model but the 4th and 5th dimensions are derived by linking cost and schedule information.

Why is BIM important to me?

In the post global financial crisis era, we are all under significant pressure to increase efficiency and reduce costs. For the construction industry, BIM offers the potential to put two huge ticks in these boxes. This point has not been lost on governments across the world and it is perhaps no surprise that the US was one of the first countries to embrace and implement BIM.

Some significant headlines include:

a) The State of Ohio in the US has made the use of BIM mandatory on all projects with a value greater than $4 million or with an M&E content of greater than 40% of the construction cost.

b) The chief Construction Adviser to the United Kingdom (UK) Government announced that BIM will become mandatory on all publicly procured projects.

c) In Singapore, statutory building approval applications can now be made on the basis of a BIM model.

The UK BIM Task Group web site
(www.bimtaskgroup.org) states that "…the UK Government has embarked with industry on a four year programme for sector modernization with the key objective of reducing capital cost and the carbon burden from the construction and operation of the built environment by 20%. Central to these ambitions is the adoption of information rich BIM technologies, processes, and collaboration that will unlock new and more efficient ways of working at all stages of the project lifecycle…".

It is therefore clear that countries such as the UK are fully committed to realizing the value which can potentially be created by BIM

It is therefore clear that countries such as the UK are fully committed to realizing the value which can potentially be created by BIM.

What are the benefits?

This value of BIM will accrue at the various stages of the construction process. During the design stage, there is the potential for reduced errors through better coordination, which should in turn reduce the number of drawing revisions, shorten design duration, reduce design costs and improve communication.

During the construction stage, BIM can potentially reduce shop drawing time, and minimize component conflicts or clashes during erection through better coordination and visualization. These improved efficiencies should in turn lead to reductions in construction schedule duration, reduced construction costs and improved communication.

During the facilities management operational stage, BIM can potentially reduce the paper chase at project close out, automatically interface and feed the building management systems, improve maintenance work order time, and optimize system control and energy planning, which can in turn result in reduced operational costs.

What are the challenges?

The challenges fall into three main categories: practical, financial and legal. One of the primary practical considerations is that the whole team's collaboration is required. One can see that in many parts of the world collaboration and sharing of information may be more difficult to implement than others. There are also practical considerations related to implementing the revised approaches to procurement that will be required in order to accommodate BIM, especially when markets are not sophisticated or suppliers are limited.

Financial considerations relate to issues such as the front end loading of design costs, the potential for additional layers of professional fees, and the investment that may be required with respect to hardware, software and training of staff.

The legal considerations relate to design responsibility, data security, information ownership, design control, change management and intellectual property rights.

The government recognizes that it will still take a considerable amount of time before the construction industry is ready to fully embrace BIM

The U.S., as ever, is ahead of the game with the American Institute of Architects (AIA) having introduced BIM protocols in 2008. As recently as 2011, major standards form publishers such as the Joint Contracts Tribunal (JCT), the New Engineering Contract (NEC) and Fédération Internationale des Ingénieurs Conseils (FIDIC) included no provision for BIM use.

FIDIC is arguably still very much behind the times when it comes to collaboration. NEC still seems reluctant to draft any specific amendments to accommodate BIM. Thankfully the JCT 2011 public sector supplement does make reference to any agreed BIM protocol; perhaps not unsurprisingly given the fact that it is widely used by UK local government departments.

What can I do?

The challenges associated with BIM should not be underestimated. By way of an example, the UK has adopted a strategy of implementation based on BIM maturity level. Maturity level 1 is now, and the target is to reach maturity level 2 by 2016, i.e. some three years from now. It can therefore be seen that even in a country where collaborative forms of procurement are now commonplace, and the market itself is arguably quite sophisticated, the government recognizes that it will still take a considerable amount of time before the construction industry is ready to fully embrace BIM.

For BIM to be successful, it requires absolute consistency of data. Therefore, one particular area that requires significant effort is the upgrading and standardization of information such as specifications and equipment data so that libraries of information, or industry classification systems, are consistent from project to project and business to business. If one considers that one of the most commonly used existing classification systems has been around since 1976, then the full magnitude of this task can be appreciated.

What does this mean for the GCC region?

BIM is already in use on some contracts within the UAE. This is without government intervention or indeed any form of mandatory compliance. This must tell us that someone can see the value that BIM will potentially bring.

Believe it or not, there is a major international contractor who is the first in the region to have its own in-house team of ex-pat BIM professionals. Contractors work on very tight margins, so clearly a solid business case is sitting behind this decision.

You may also be surprised to hear that you will soon be able to share information and knowledge, ask a question, find our more information, network or just simply chat with other BIM users on the region's first dedicated BIM web site (www.thebimhub.com). Although this may sound slightly geeky to many, clearly someone can see that there will be demand for this social medium.

Perhaps in hindsight, none of this is a surprise. Some of the best international contractors operate within the region bringing with them professionalism, innovation, commercial acumen and passion. With so many high profile projects and opportunities around the corner, now is as good a time as any to make the BIM investment given the huge savings that could potentially be realized.

The region has impressed the world with its ambition and pace of development, so to hear that BIM is being embraced is refreshing and thought provoking. If ever there was a region where it can succeed, my money would be on the GCC. I just hope that we do not see anyone trying to set a BIM related world record!

Zane Hedge
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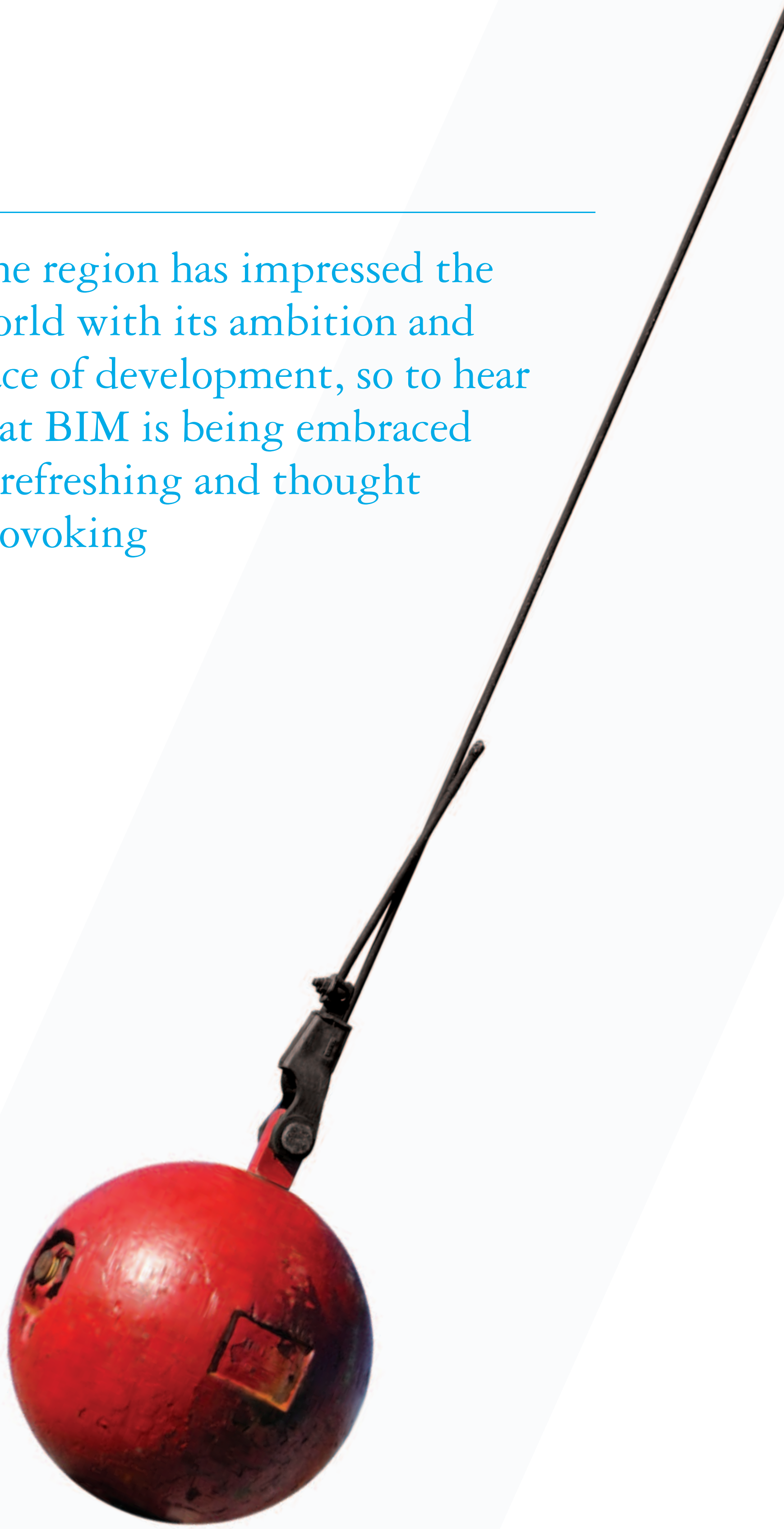

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