



cutting through complexity

Cost Transparency

– the complexities are still haunting operators and their partners

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Introduction

In 2012 KPMG presented a paper entitled *Taking the Complexity out of Managing the Expense Line* which highlighted the challenge of ensuring that general and administration costs (effectively labour costs, plus some other activity related costs), get burdened accurately and transparently to the right places. Given the timing of projects in Australia and in the ASPAC region, operators were struggling to manage the growth in the expense line versus the imperative to build against project milestones.

An industry-wide race towards achieving construction milestones drove behaviours of increased spending. Today the focus is on implementing low cost operating models to optimise the move toward operations in a lower priced oil world.

Our recent work and subsequent research demonstrates that cost transparency is still a major issue in the upstream oil and gas industry for operators and non-operators alike. It is clear that it will be difficult to drive out costs and move to the lower cost baselines without significantly improving cost transparency in oil and gas organisations.

In this paper, we explore what lessons can be taken from organisation's attempts to drive out sustainable costs that can be applied to upstream oil and gas as they try to move to new baselines in a low oil price environment.

The 'new normal'

In KPMG's publication, *Oil: New Rules, New Game* launched in early 2015, we highlighted the fact that the era of lower oil prices will continue for some time. Early stage projects will be cut, such as deep water or Arctic. However, those projects already committed will have to contend with much lower cost structure to be competitive. OPEC's stance on market share, of being a price-taker rather than a price-maker, and the US shale boom has changed the dynamics permanently.

Daily Brent oil prices (Dollar per barrel)



Source: Energy intelligence agency

How can you optimise costs if you don't have transparency?

Experience shows that before you can optimise your cost base, you need to get transparency. The combination of the construction boom over the last 5 or 6 years in the Australian oil and gas industry coupled with high oil prices arguably led to lax cost management behaviours. In the drive to achieve project milestones the need to understand costs, or rather cost drivers, was not a priority. The 'new normal' has refocussed operators and their partners to take urgent action. Unfortunately, research shows that cost optimisation initiatives are likely to fail unless there is transparency of what is driving costs and the sustainability of any initiative will depend on the success of developing a 'cost conscious culture'.

It is self evident that organisations must develop strong cost management cultures if they are to make sustainable changes. Warren Buffet said after the GFC that, "Only when the tide goes out do you discover who's been swimming naked". The same can be said for the area of cost management. The first reaction by organisations in the current climate is to cut costs; at all cost. Our observation is that this is often done without understanding what the drivers are.

There is arguably nothing new in these ideas but they are difficult to execute and require strong leadership. KPMG Australia has spent the last 6 years working with upstream organisations on driving essential cost management disciplines and behaviours, as well as helping simplify and standardise systems and processes. In this publication we will highlight some of the lessons learned, showcase some of the best industry practices, and provide some key frameworks that can be applied.

The growing problem

The growing problem can be viewed through two lenses; the external and the internal. The most obvious driver for change is the low oil price. According to Wood Mackenzie¹ "companies have not yet cut [costs] to the levels implied by the forward price USD60-65: cuts to date imply a USD70-75 price for 2015". This attitude is changing rapidly but there is still work to do.

External influences

The low oil price is certainly here for the short to medium-term. According to KPMG's recent research "it has been the case in previous cycles that 16 months after the price peaked, it is still 40 percent below the peak level, which implies a price of USD69.64 Brent" (*Oil: New Rules, New Game, 2015*, KPMG). The same research shows that will also take some time to reach 'the new normal' as "although the hoped-for price recurrent recovery has moved from being described by commentators as potentially 'V shaped' to being more likely 'U-shaped' as the fundamentals are much more like 1986.

Internal influences and reactions

Companies have already started announcing the 10 percent to 15 percent cuts to the suppliers and contracts. This is easy for companies with scale but not so easy for the mid and smaller players. There is also a chance that supply chain risk is increased as suppliers operate on much tighter margins with little degree for error. The evidence following the global financial crisis was that many oil and gas companies underestimated the extent of supply chain risk and ultimately ended up bringing these capabilities in-house, which outweighed the cost savings.

Unsurprisingly companies at all levels have already announced cuts to discretionary spending.



¹ at the time of writing this publication, 1/5/2015

Increased scrutiny Operating model

Our research shows that the low oil price and the renewed focus on costs, has led to an increase in the number of joint-venture audits. This is hardly surprising as both operators and non-operators are being pressured by boards and shareholders alike to explain exactly what is driving costs. In a recent KPMG survey of ASPAC oil and gas operators and non-operators all of our respondents cited an increase in joint venture audits. The same survey showed that operators and non-operators considered that they were recovering most of their cost in accordance with their Joint Venture Operating Agreements. KPMG's experience is that rarely is it that straightforward. In most instances operators end up absorbing General & Administration (G&A) cost that should have been burdened out. The main cause to these inefficient processes is lack of transparency of what is driving costs.

Creating an operating model for the 'new normal' cannot be done overnight. Over the last 6 years of the Australian LNG construction boom, we saw companies' ramp up support functions and increase capabilities at almost any cost. We are now seeing a rapid and often painful ramp down of headcount to match operating models that have to be "ready for LNG". As a result, these incremental changes will not provide the cost savings quick enough and so large wholesale changes are likely inevitable.





Costs occur
in multiple
dimensions

In Stephen Wilson's book *Waging war on complexity of costs* he puts forward the idea of a complexity cube. That is a concept where the cost overhead can reside in one or all of three dimensions; that is product, process or organisation. This is a useful concept that can apply to project based industries such as oil and gas. The complexity cube in this case could arguably be asset, process and organisation. It is easy to see why oil and gas companies lost sight of the cost drivers when we consider that Australia has built some of the largest capital projects in the world. The number of hand offs between functions and service providers has added to the complexity of already complicated projects. The principles that we have applied (*Taking the complexity out of managing the expense line-G&A cost management strategies for LNG and CSG projects* (2012), KPMG) with our clients that help overcome this complexity of costs include:

1. Transparency

- a. A dollar that is allocated to an end point should be able to be traced back to an activity. This can be viewed as high-level activity based costing. Our observation and our work with oil and gas companies shows that

without this transparency, operators will inevitably be absorbing costs that should have been burdened out and recovered from JV partners.

2. Logical allocations

- a. The allocation method should make sense in how the activity is performed; is it head count based or unit based?

3. Keeping it to the 'minimums'

- a. Supporting our concept of transparency is a principle of 'minimums'. That is establish a minimum number of rates, and fewer 'delegation of authorities'. A guide should be at what level are decisions made? Too low and there will be unnecessary administrative burden. Too high and transparency and accountability is lost.

4. Only allocate what is required otherwise burden the cost to the end point wherever possible.

And the final principle which we will examine later:

5. Build a cost management culture.

The cultural challenge in managing costs

In a 2011 publication entitled *The Cost Boomerang* which looked at how companies responded to cost management challenges following the Global Financial Crisis. The research found that 93 percent of companies thought the cost cutting would not be sustainable and that over one third thought that the cost of rebuilding the capability would be greater than the initial savings.

KPMG is not alone in its findings in a study published in the *European Journal of Economics, Finance and Administrative Sciences* in 2011 it showed that "in spite of having knowledge about the fruitful effects [of organisational culture and cost management strategies] these practices, the organisations are still unable to adopt and successfully implement the strategies for the desired outcomes. It went on to say "one of the major factors is the organisational culture, from an individual and organisational perspective, that hampers the adoption and eventually the successful implementation of cost management strategies".

The second major finding was that aligning decision making and cost information was critical; that is putting information in the hands of cost managers at the right time. The evidence then and now is that large organisations must manage costs in a sustainable way.

In our 2011 research we identified three significant challenges that executives face in implementing cost conscious cultures in our organisations.

This research also shows that there are three major hurdles to building a 'cost culture', namely:

- **'The Grade Fade'**

This refers where senior management understands what effectiveness is but those on the front line do not.

- **'The Knowing-Doing Gap'**

This refers to employees knowing what is expected of them in a cost-conscious culture, but not feeling empowered to take action.

- **'The Capability Gap'**

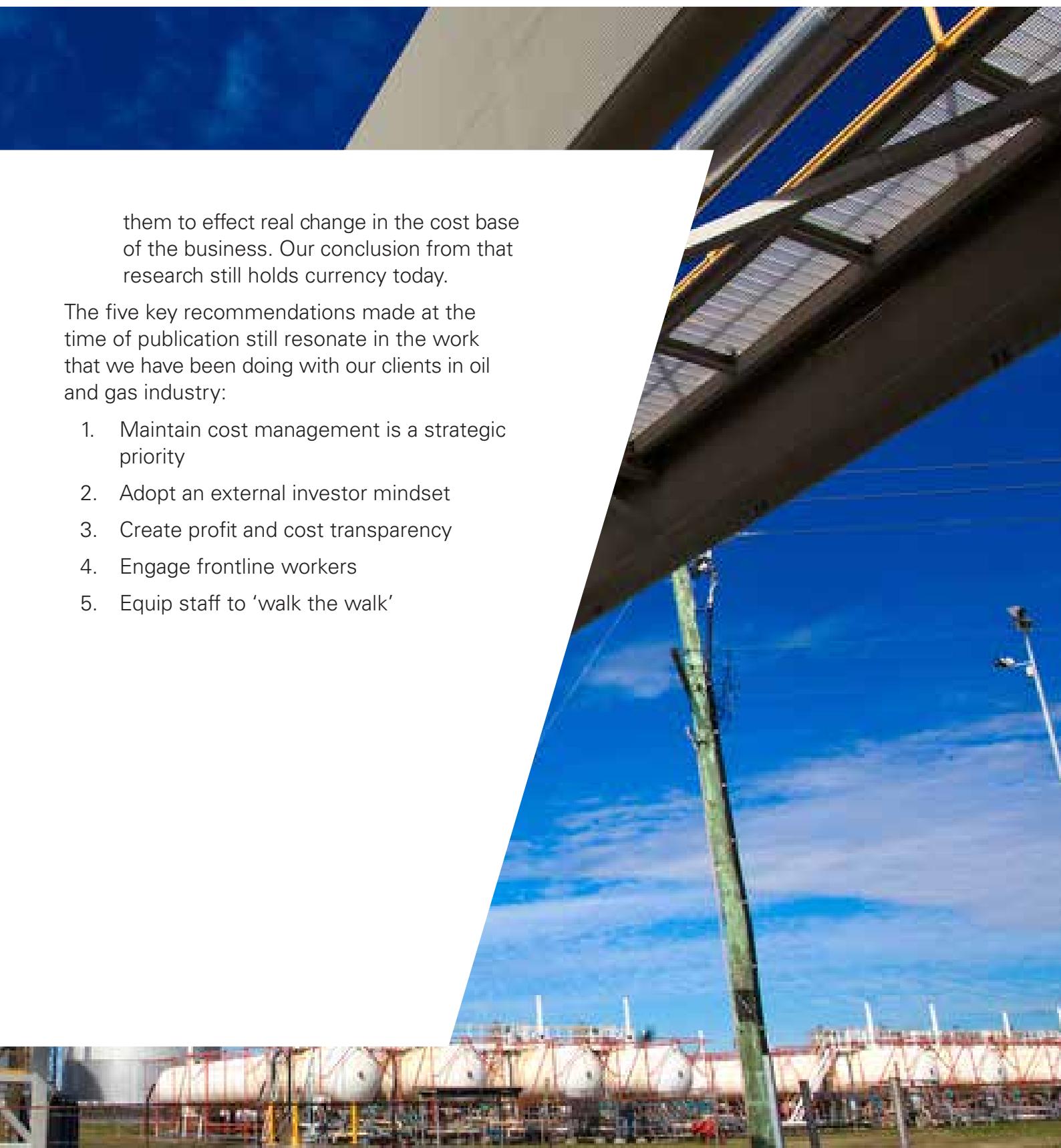
Finally, this refers to employees having the right tools, skills and capabilities to enable



them to effect real change in the cost base of the business. Our conclusion from that research still holds currency today.

The five key recommendations made at the time of publication still resonate in the work that we have been doing with our clients in oil and gas industry:

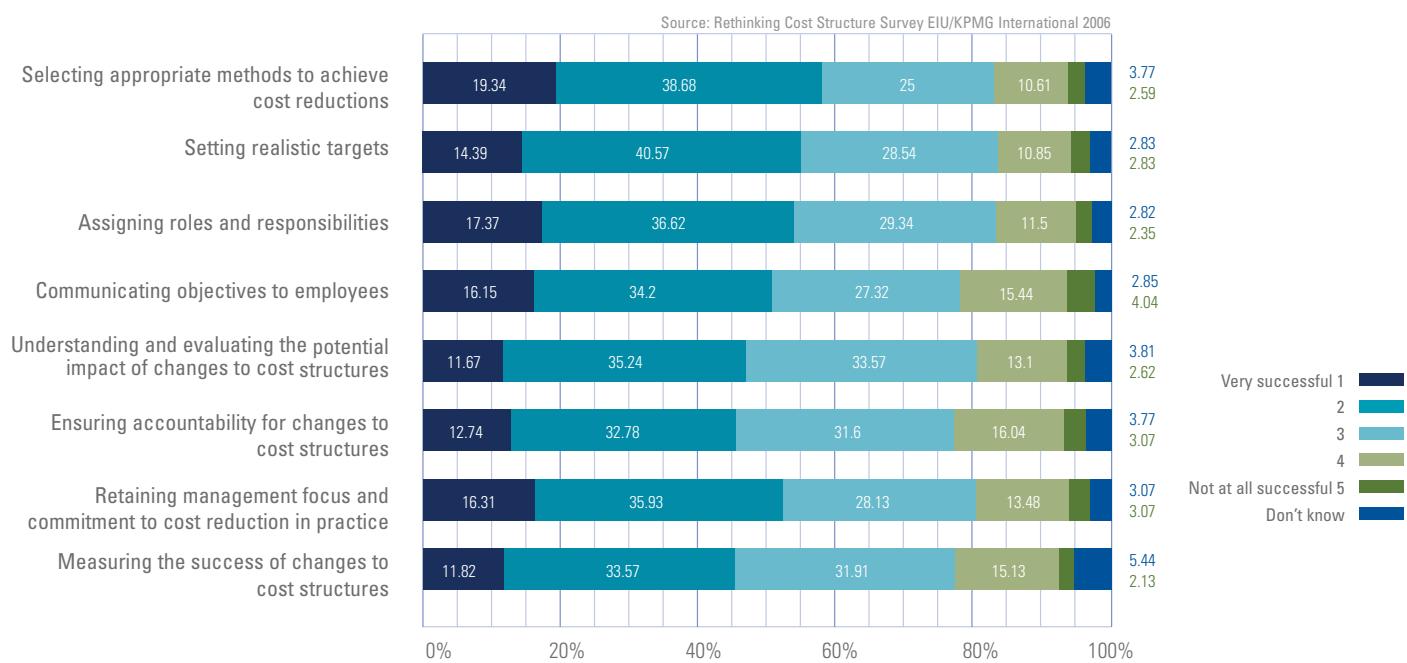
1. Maintain cost management is a strategic priority
2. Adopt an external investor mindset
3. Create profit and cost transparency
4. Engage frontline workers
5. Equip staff to 'walk the walk'



Measuring and monitoring

Our most recent research shows that even following the lessons of the GFC, organisations still struggle to effectively measure and monitor the success of cost initiatives.

In surveying our sample of ASPAC oil and gas companies, they all sighted the challenge to distinguish between good costs and bad costs. Good cost are those incurred that move the business forward while bad cost diminish value. In our view, overly simplistic cost reduction exercises such as taking 10 percent out across the board is not a sensible strategy. Our experience in cost allocation in upstream oil and gas show that accurate burdening of cost in simple and straightforward ways can significantly assist operators in distinguishing which cost 'levers' will give the greatest return

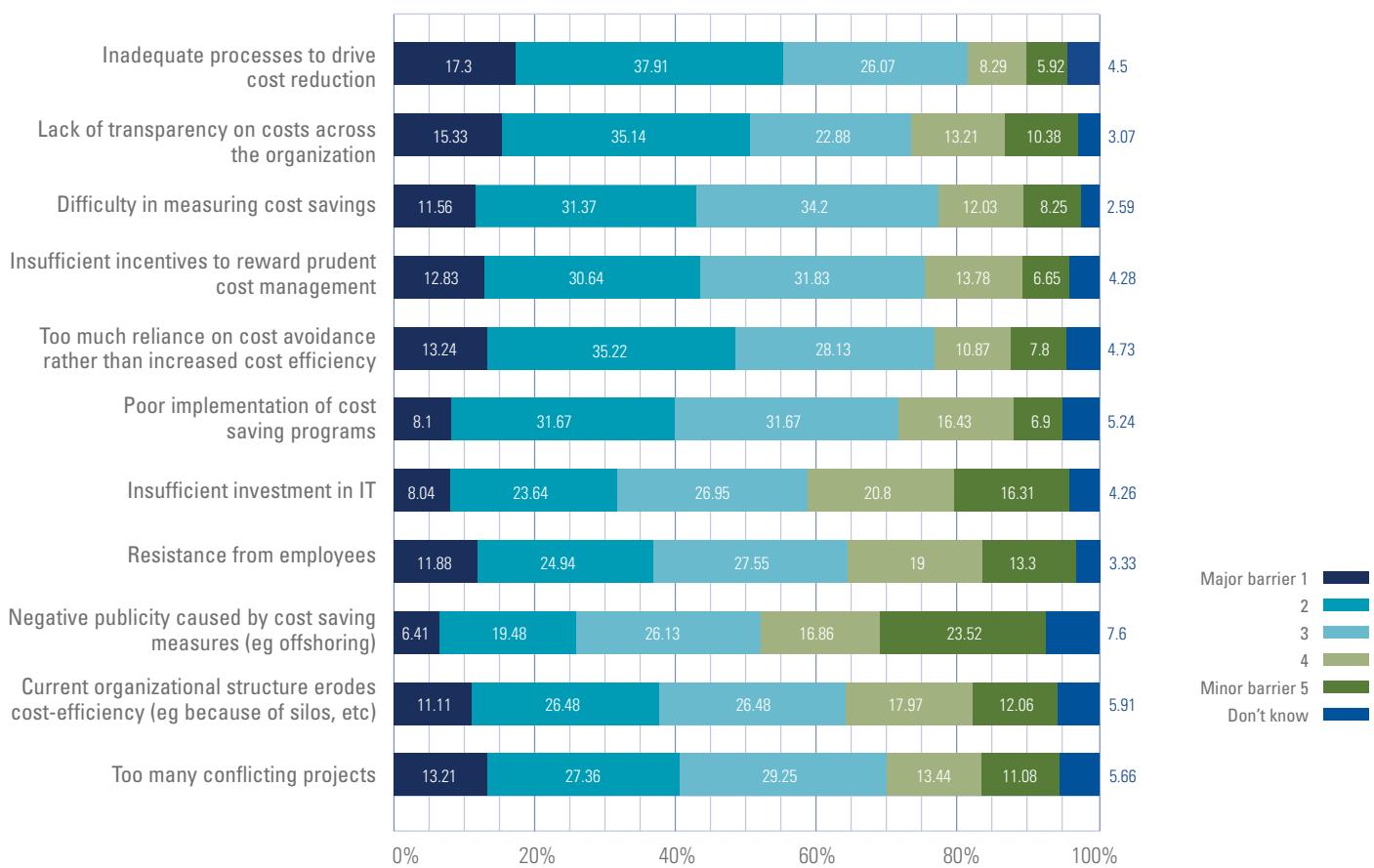


Barriers to optimising cost structures

Our previous research highlighted the most common barriers to implementing new cost structures. Two of the most common themes are that oil and gas companies are still extremely siloed and that there are too many competing initiatives that are demanding management time and attention. One organisation have specifically created a General Managers forum to try and break down the silos.

Another observation suggests that operators with multiple projects and different ownership structures, are failing to create synergies and that cost measures and KPI's related to budgeting and forecasting are not consistent across each of the assets.

Source: Rethinking Cost Structure Survey EIU/KPMG International 2006



Key enablers to optimising cost structures

The key enablers to implementing new ways of managing costs can be clustered in three broad categories; process, people and technology.

Process

The oil and gas industry has had success in applying *Lean and Six Sigma* principles. It is evident from our observations over the past few years that because of the size and scale of the capital projects, very few people have a complete picture of the end-to-end process. Projects have been de-bottlenecked only to expose more bottlenecks in the hand overs to partners (EPC or EPCM) or head office.

Lean is about the illumination of waste. It is about increasing the 'value adds' and reducing the 'non-value adds'. But a key principle of Lean is a balanced process. The siloed nature of these mega projects provides enormous challenges of applying these principles.

Six Sigma is about the elimination of error. These principles are often applied much too early in the project lifecycle as they have limited value until a process is stable. Our experience shows that early tracking of costs can show huge volatility. In every case we examined, this volatility settled after several quarters as people became used to the new systems, timing differences were smoothed out and feedback loops with end users gained traction.



KPMG believes that oil and gas companies can benefit from considering these five elements:

- Use principles like Lean to eliminate non-value add activities.
- Do not try to optimise processes until they are reasonably stable.
- Create (automated) feedback loops so that decisions can be made where the activity is taking place.
- Be aware that in the early stages of implementing new cost management processes there will be volatility but this will settle down.
- Be clear on materiality levels; ask at what level key decisions should be made? Use this to guide the tolerances on your cost management systems.

People

Over the last 5 years working with our clients in oil and gas, we have seen that most underestimate the cultural and behavioural change requirements to implement new ways of managing costs.

The principles of change management are consistent for cost management transformations as for other organisation wide transformation. Cost management is not sexy but it is important so some effort and creativity is needed to gain peoples buy in.

Our experience has led us to adhere to some common principles for cost management projects:

- Communicate the 'Why?' before the 'How?'
- Understand how people like to be communicated with. With one client we asked, *which emails do you take note of?* The response was, *those from their immediate supervisors*. We therefore designed and cascaded the communications through the supervisor network.
- Create relevant pilots and test, then incorporate feedback. We also suggest selecting pilots that are seen as proxies for the wider business. With one client we were about to use the finance department as the pilot and were told by one of the assets that they would not be a good example for the rest of the business. The cost management pilot had to be one of the assets to get buy in from engineers and those in operations.
- Keep it simple for everyone to understand.

Systems

Over the last decade the technology investment in oil and gas companies has been substantial. Most operators are using large enterprise resources planning software packages such as SAP or Oracle. In addition to these core systems there has been a huge growth in technology such as spacial and modelling systems.

It is important to understand that technology is an enabler and should not be the driver of change.

With one client we developed some key principles for technology in cost management projects:

- That anything we implemented should be no more difficult than internet banking (the client also pointed out that they had never had training in internet banking).
- That any new system should require the same or less mouse clicks than its predecessor.
- That as much as we can, we will provide self service for reporting.

And,

- That any new system must incorporate a simple feedback loop so that users can contribute new ideas.



Conclusion

It is not difficult for oil and gas companies to announce that they have embarked on cost management, cost transparency and cost optimisation initiatives. Our experience shows that most organisations at first do not fully understand the complexity of their cost structures. Their efforts to reduce costs in a sustainable way require discipline and new ways of working. Very few operators in our experience truly know what drives cost to the granularity that is required to effectively choose which activities can continue and which should be reduced.

Over the last 6 years we have refined our own views of what can support good cost management in oil and gas and have developed some key guidelines:

1. Capture costs and cost activity as granularly as possible without creating a major overhead. In oil and gas the industry, the norm is to time write as much as possible where it makes sense. Burden costs to the end point directly where possible.
2. Try and stick to the minimums. Have a minimum number of tiers you allocate cost through. Have a minimum number of rates for the roles in the organisations.
3. Make sure you are using the right allocation basis for the activity. Should it be head count based, unit based (per barrel of oil equivalent, or per square metre etc.) or transaction based?
4. Only optimise once you have some stability in the system.
5. Cost management is not a 'sexy' topic, so a great deal of energy and dedication needs to be applied to the change management strategy. Our experience has been that if we communicate the 'Why?' and engage the people in the way they would like to receive information we have been successful. Most oil and gas companies are engineering led organisations so explaining the logic has not been that challenging; creating behavioural change has been the challenge.
6. Use systems to enable change rather than be led by how systems handle cost management. Try and build in feedback processes so that those managing costs can see what is happening and take action. From experience we have seen

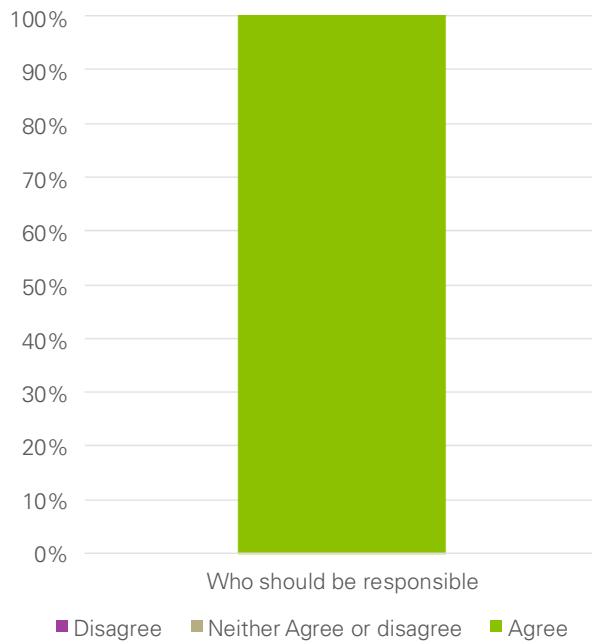
that the cost managers themselves could handle 80 percent of variances once they had the right tools. Implementing the right tools also reduced the workload of the finance analysts, who then could concentrate on the exceptions.

Costs are part of the business model and should be seen 'as an investment' (KPMG, *Rethinking the cost structure*). It is vital companies understand the difference between the good costs and the bad costs. As an analogy, if we had ten parcels of shares in a portfolio and had to reduce this portfolio by 10 percent, then selling 10 percent of every parcel would not be the best strategy. Cutting every cost centre by 10 percent, a strategy we often hear, also does not make sense.

Finally, the oil and gas industry has invested heavily in a 'safety first' culture. It has made enormous improvements and the culture is clearly here to stay. We would argue that if the industry put a fraction of the same energy in to building a 'cost conscious culture' then it will weather the lower oil price world so much better.

Cost Culture 1

Cost management and finance



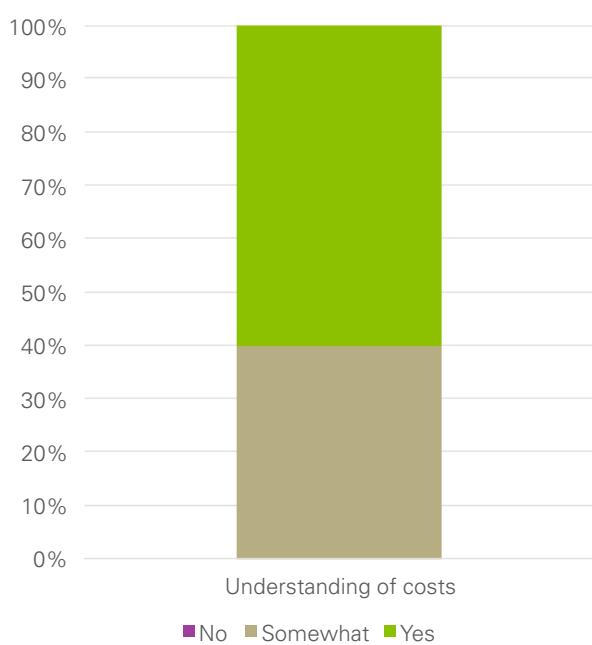
Cost management is often seen as the responsibility of finance however for cost management to be effective the mindset should be organisation wide. Would you agree or disagree?

- Agree
- Disagree
- Neither agree nor disagree

Our respondents overwhelmingly saw cost management as an organisation wide responsibility.

Cost Culture 2

What drives costs?

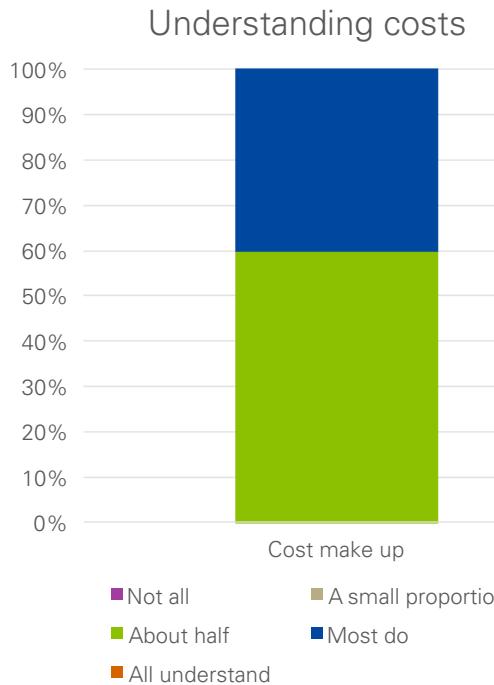


In your organisation do you think that outside finance there is a good understanding of what drives costs?

- Yes
- No
- Don't know

Many of our respondents spoke about how there had been a recent shift and how finance had been educating the business in recent years.

Cost Culture 3

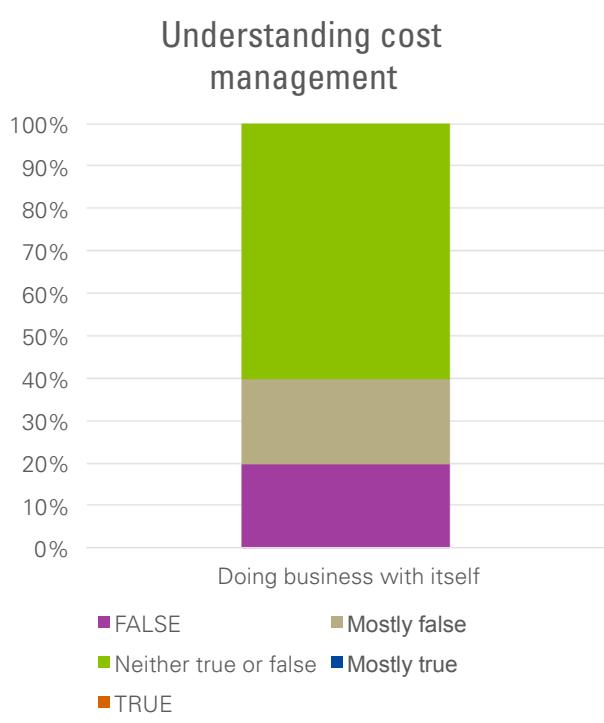


On a scale of 1 to 5 how well do you think your cost centre owners understand the makeup and drivers of all their costs?

1. Not at all
2. A small proportion do
3. About half do
4. Most do – to a greater extent
5. All cost centre owners have a full understanding

There is still some work to do to assist cost centre owners understand the levers and what drives costs.

Cost Culture 4



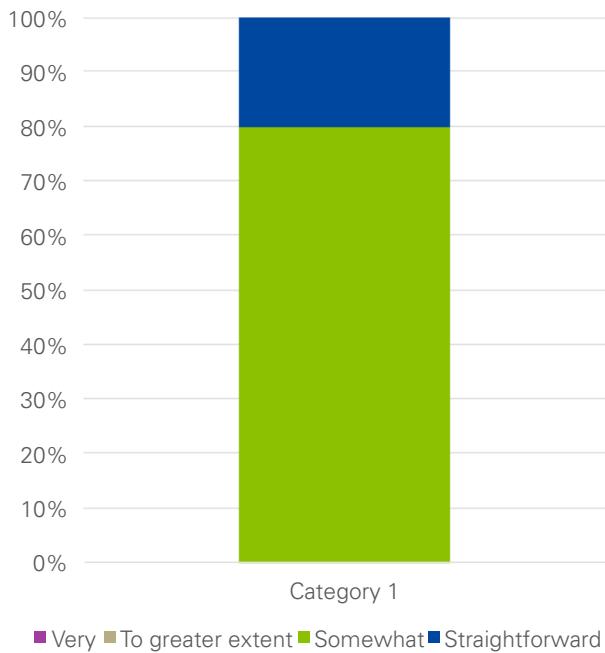
When cost management is not widely understood, including cost allocation it can lead to an organisation “doing business with itself”

- This statement is true
- This statement is mostly true
- This statement is neither true nor false
- This statement is mostly false
- This statement is false

Evident suggests that a poor understanding of cost management can lead to organisations doing business with themselves.

Measuring and monitoring 1

Measuring and monitoring



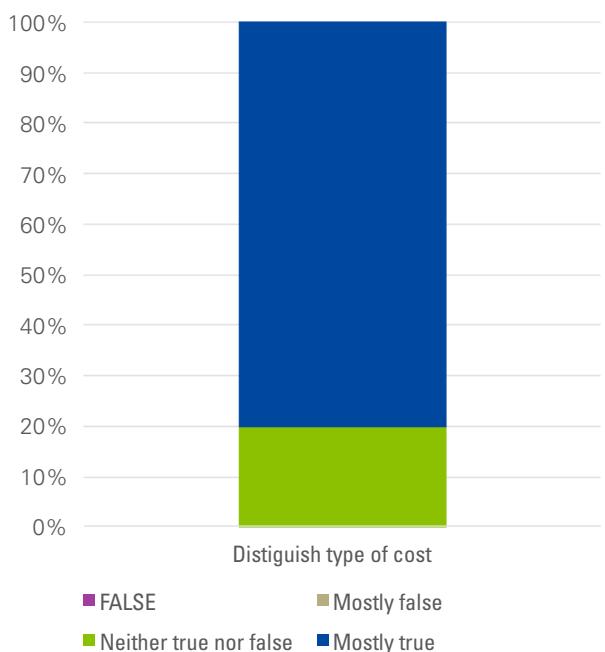
How challenging is it for you to measure and manage your cost management initiatives?

- Very
- To a greater extent
- Somewhat
- Easy/straightforward

Considering the industry wide focus on cost management it is clearly still challenging to measure and manage related initiatives..

Measuring and monitoring 2

Good and bad costs

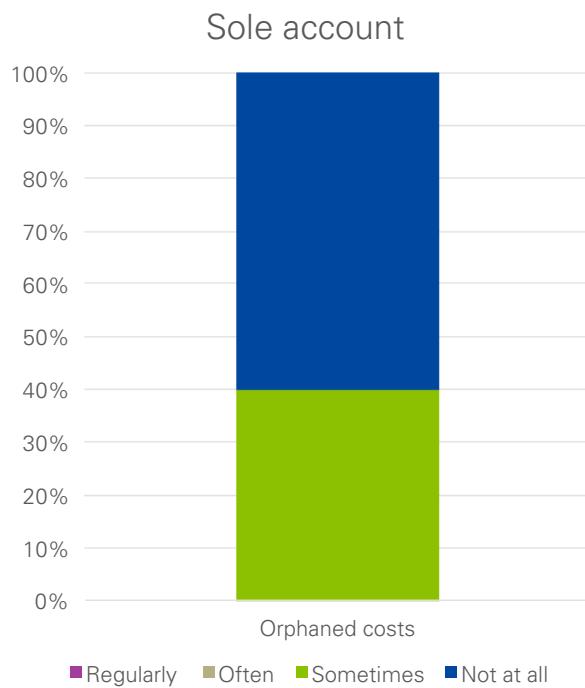


KPMG's research shows that organisations struggle to distinguish between good costs and bad costs when trying to implement cost management strategies; that is costs which give a return and those that do not. Would you say this is true of your organisation?

- This statement is true
- This statement is mostly true
- This statement is neither true nor false
- This statement is mostly false
- This statement is false

Consistent with our research and our work in the industry organisations still see there is more that can be done to distinguish between good costs and bad

JV Cost recovery 1

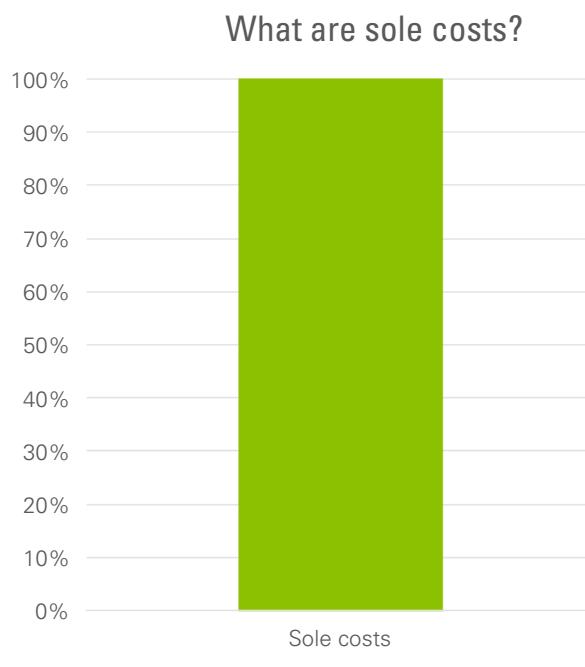


To what extent do you think that 'orphaned costs' occasionally end up on your sole account?

- On a regular basis – monthly/quarterly
- Often
- Sometimes
- Not at all

This has not been KPMG's experience. Most clients we have worked with struggle to burden out all costs to their end point. Our own observations would be between "often" and "sometimes".

JV Cost recovery 2

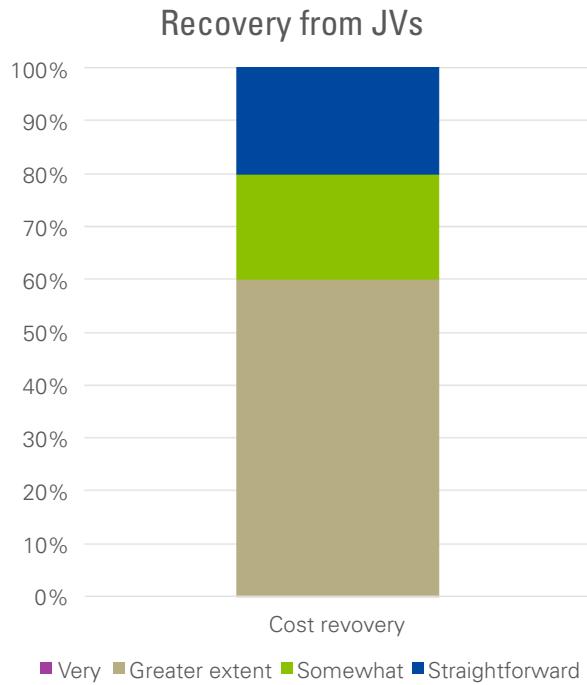


How challenging is it to understand the cost that end up on your sole account (i.e. 100% operator)?

- Very
- To a greater extent
- Somewhat
- Easy/straightforward

KPMG's experience has been that even with organisation wide ERPs cost still remain in the sole account that are difficult to isolate and understand

JV Cost recovery 3

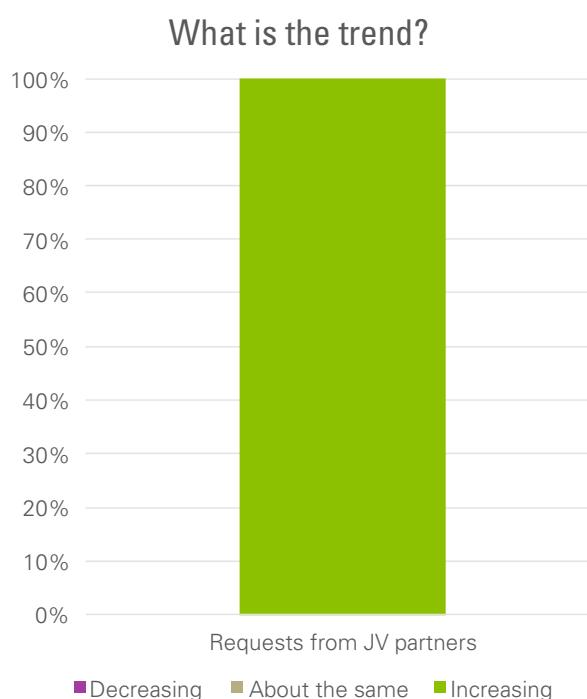


How difficult is it to burden or recover costs from your JVP's?

- Very
- To a greater extent
- Somewhat
- Easy/straightforward

The industry has a long history of successful JV arrangements and these are standard business practice in Oil&Gas. We have seen many examples though where all related costs are not being burdened out correctly.

JV Cost recovery 4



Are the JV Audit requests for cost information increasing or decreasing?

- Increasing
- Decreasing
- About the same

With no sign that the oil price will improve in the short term it is not surprise that JV audits are on the increase as a reaction to cost pressures.

References

Marcia Ashong (2010), *Cost recovery in production sharing contracts: opportunity for striking it rich or just another risk not worth bearing?*

Oil: new rules, new game (2015), KPMG

Qaisar Ali Malik *et al* (2011), Organisational culture and cost management strategies-developing a model, the European Journal of economics, Finance and administrative sciences, issue 28.

Rethinking cost structures-creating a sustainable cost advantage (2007), KPMG.

Stephen A. Wilson & Andei Perumal (2009), *Waging War on Complexity Cost.*

Taking the complexity out of managing the expense line-G&A cost management strategies for LNG and CSG projects (2012), KPMG

The Cost Boomerang - how organisations can embed sustainable cost efficiencies to drive competitive advantage (2011), KPMG

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Jonathan Smith is KPMG's National Leader for Oil & Gas services in Australia. He has over 25 years experience in management consulting and for the last 6 years has focused almost solely on working with awning gas operators on process improvement and cost transparency/management. He has had a particular focus on advising and assisting finance leaders with strategic and operational issues facing their finance functions. In the past few years Jonathan has done significant work with these functions in capital intensive industries; specifically LNG, CSG and mining companies. He has authored thought leadership on areas such as cost transparency, building a cost culture and cost optimisation.

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