Future planning in uncertain environments

Martyn Denton, MD of intelligence specialists QRO Global looks at the importance of future planning when setting up mining operations in new or unstable environments.

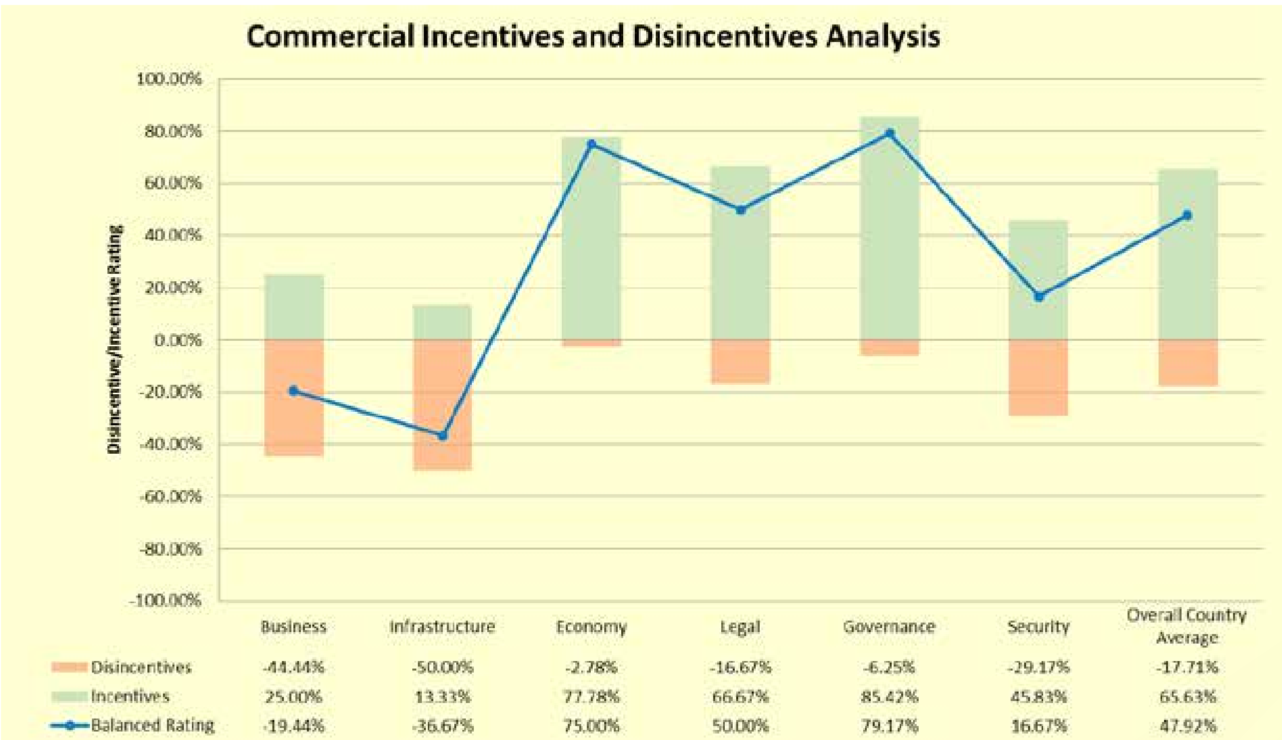
Like several other sectors, the mining industry is increasingly looking to different operating environments as a way of opening up new markets and renovating the supply chain.

However, some have come under fire from shareholders for allowing costs to run out of control on huge greenfield "white elephant" projects as they chased a 14 year boom in commodity prices, sparked by China's voracious appetite for the raw materials of its economic development.

The write-downs and project overruns have also contributed to a significant change in the boardroom: nearly half of the world's 40 largest mining companies have changed chief executives in the past two years.

Setting up operations in an unfamiliar country or region can be a risky proposition. Apart from the geological groundwork involved in prospecting and exploration, it's essential to carry out thorough research into the area you are moving into.

This will help ensure accurate and informative feasibility studies, as well as creating an effective plan to take the business forward in an uncertain environment. But, be prepared for a lengthy process - even with an experienced company, it is likely to be at least six years before investors see any revenue from a greenfield mining project.



Do the rewards outweigh the risks?

All new operating environments present challenges which need to be quantified and understood so they can drive future planning. Inevitably, there will be anxiety around entering into areas perceived to be unstable or high risk. Hence, many organisations may think twice before venturing into mineral rich countries such as Bolivia, Zimbabwe and Venezuela which lack political stability.

However, companies continue to be drawn to challenging environments as the risks are offset by the potential for more lucrative returns. The key issue is, can these risks be adequately managed to maximise the undeniable opportunities?

Any business planning is rendered useless without an accurate understanding and knowledge of the operating environment. However, it can be difficult to know where to start with large and complex problems such as social issues, political instability or security concerns - particularly

Commercial Operating Environment Tread Analysis

Key Factors	Overall Assessment	Sector Analysis	2012	2013	2014	2015	2016	Comments
Business		Bureaucratic Efficiency					-	
		Business Integrity					-	
		Industrial Relations				-	-	Strong unions linked to ruling party
		Labour Quality					-	Poor education and skills
		Labour Avilability					-	Large young workforce
		Access to the Market				-	-	Monopolies (some state-owned) and duopolies exhist in some sectors
Infrastructure		Transport						
		Communications						
		Utilities						
		Technology						
		Research and delevlopment						
Economy		Growth				-	-	
		Capital Investment				-	-	
		Inflation				-	-	
		Currency and Exchange Rates				-	-	
		Government Debt and Spending				-	-	
		Taxation				-	-	
Legal		Legal System					-	
		Business Regulation					-	
		Legal Integrity						
Governance		Strategic Direction					-	
		Political Continuity					-	
		Democratic Stability						
		Foreign Relations					-	
		Regional Relations					-	
		Political Integrity						
Security		Regional Stability					-	
		Internal Security					-	No Significant terrorist or insurgency threat exists
		Rule of Law					-	High levels of organised crime and general criminality
		Law Enforcement Integrity						

KEY: Incentives and Disinsentives			
			Low Disincentive
	Substantial Incentive		Moderate Disincentive
	Moderate Incentive		Substantial Disincentive
	Neutral	-	Undetermined

if the problems are deep rooted with a long history.

Furthermore, even if the research has been diligent and comprehensive, the information available may be conflicting, incomplete or simply overwhelming. This in turn begs the question, what should you believe and how does this impact on your business plan?

The bigger picture

In most scenarios, the logical first step in the process of future planning is to look at the required output: what is it that a business needs to know to enhance the planning process? Mining involves so much more than just digging rocks out of the ground, and so companies need to look at the bigger picture.

They need access to information that will enable them to address key issues such as financing and managing capital projects, recruiting a reliable and skilled local workforce, managing a range of risks and identifying potential security problems. In addition, the industry is under increasing pressure to demonstrate their corporate social responsibility – all whilst improving performance and operational effectiveness.

Information in action

Having established the importance of detailed information, let's look at the process in action. The example below is a snapshot of the commercial incentives and disincentives for a Latin American country from earlier this year. The graphic forms part of the executive summary of an operating environment analysis for this country and depicts the key sectors of interest to commercial operations.

The information contained within this graphic is designed to focus and prioritise the thoughts of the decision-makers. In this example, it is further reinforced by the identification of the major commercial issues in that region, and then substantiated in the main body of the report by relevant details to inform and confirm the analysis.

An interesting aspect of this particular analysis is that the country in question is generally viewed as having significant problems with governance and security. However, the analysis actually highlighted labour quality, bureaucracy and integrity (within business operations) and infrastructure as the principal disincentives to business success.

This demonstrates that the effective management of information, evaluation, cognitive biases and prejudices all play a significant part in the focused analysis of a country.

This analysis also demonstrates the balance of positives and negatives within an operating environment. Incentives and opportunities are the flipside to disincentives and risks; the former drive growth and consolidation, whilst the latter obstruct operations. Approaching a problem in this way promotes a much more stable platform for decision-making.

Knowing what you don't know

The acquisition of a certain level of understanding of an operating environment naturally prompts further questions relevant to business operations. It's impossible to know everything, but it is vital to recognise that which could cause success or failure. Even if faced with a "known unknown", at least we know where the gap in our knowledge lies.

Some of these gaps can be filled by the directed and co-ordinated collection of information. However, even with extensive information sources, there may remain "known unknowns" which can only be addressed through the use of intelligence analytical techniques. This means evaluating past trends and behaviours, applying theoretical models and analysing the situational logic through a process of critical thinking to produce auditable and accurate predictive assessments.

There are seldom definitive "black-and-white" issues in the mining business and so it will always be a case of dealing with shades of grey. Information and assessments are no different, although they come with quantifiable health warnings as to their accuracy and relevance. They do not remove risk in its entirety, but do allow a company board to make well-informed decisions.

"IT IS LIKELY TO BE AT LEAST SIX YEARS BEFORE INVESTORS SEE ANY REVENUE FROM A GREENFIELD MINING PROJECT."

Identifying future trends

Even a stable and well established operating environment will evolve in response to developments and your objectives. Inevitably, this fluidity and susceptibility to rapid change is multiplied many times over in unstable environments. A key deliverable, as per the graphic below, will be a temporal context analysis, which seeks to identify trends and significant future events.

This trend analysis is for the same Latin American country and allows a focus on specific incentives and disincentives areas. All outputs are tailored to produce bespoke analysis according to the business and, at this stage, will be used to identify critical topics for later more detailed analysis and research.

Understand your environment

The importance of understanding the local environment, although admittedly in a military context, is illustrated in Doctor Mike Martin's recent book An Intimate War. The book tells the story of the last thirty-four years of conflict in Helmand Province, Afghanistan as seen through the eyes of the Helmandis.

The book incorporates the Soviet intervention, the civil war, the Taliban, and the post 2001 nation-building era. It explains how outsiders have often misunderstood the ongoing struggle in Helmand and how they have exacerbated the conflict - precisely the opposite of what was intended.

In the commercial world there are significant lessons to be learned from such experiences. A failure to understand the operating environment will likely cost a business in terms of finance, reputation - and potentially, lives. There are many examples across the world where even the larger multinationals can be undone by unforeseen events from terrorism through to economics.

- Rio Tinto are involved in a copper and gold project that could transform Mongolia's economy. However, it has been beset with delays, caused by disputes with the government over the distribution of the spoils. The underground part of the project was supposed to be producing copper last year, but is not likely to before 2015, resulting in a write down of the value of the project by $4.7 billion earlier this year.
- Terrorist attacks on Colombia's largest coal producer, Cerrejon increased to an all-time high in 2013. The attacks are being carried out by Marxist guerrillas as a protest against mining companies' alleged looting of the nation's wealth, with the chief negotiator of the Revolutionary Armed Forces of Colombia (FARC) describing the mining industry as "a demon of social and environmental destruction," the situation looks unlikely to be resolved anytime soon.
- Barrick Gold, the world's largest gold miner in the world had planned to mine for gold and silver in the Chilean Argentinian border in the Andes. Costs ballooned by 50% to about $8 billion and indigenous groups on the Chilean side opposed the project. Barrick has put the scheme on hold while it tries to win hearts and minds.
- The Turkish mine disaster in Soma earlier this year was the worst in the country's history. However, with such a poor national record of safety, many would claim that such an event was inevitable. In 2010, the Turkish Economy Policies Research Foundation (TEPAV) released figures showing a mortality rate of 7.22 people per 1 million tons of coal mined – the highest in the world. Ironically, the Republican People's Party's demand for a parliamentary investigation regarding the safety in Soma mines was rejected by the Grand National Assembly of Turkey just a fortnight before the disaster.

The mining industry is one of the oldest in the world and has survived many changes. If the industry is to succeed in new markets, carrying out an operating environment analysis is just the first step to raising our understanding to a level necessary for effective decision-making.

However, like most first steps, it is a fundamental part of the process: it is the content and context of this analysis that lay the foundations for a matrix of business support tools, that allow you to manage risks, take opportunities and conduct effective intelligence-led operations.

About the author

Martyn Denton

Martyn Denton is MD of QRO Global who offer a range of business intelligence, security and risk management services. Martyn has over 30 years' experience in the armed forces, reaching a senior level within the British Army. Martyn has been involved in intelligence operations across the world in both a military and commercial capacity, working in co-operation with the armed forces, law enforcement agencies and government departments of both the UK and foreign nations.