

## Chapter 7: CONCLUSION & RECOMMENDATIONS

### *Chapter Highlights*

*This is the last chapter which discusses further on the preliminary conclusions made in the Comparative Analysis (Chapter-6) with the various findings from Literature Review (Chapter-2). This section essentially grounds the theory with the empirical data collected in the GCC Oil & Gas Companies. This chapter finally presents the primary objective of the study which is to answer the Research Questions set out in the study. Region-specific Change Drivers that are responsible for developing best practices in ERM are suggested and subsequently also addresses the next objective of this study, which is to recommend the Best Practice approach for successful ERM implementation in the Middle East Oil and Gas Companies. The chapter finally suggests an Action Plan for the Middle East Oil Industry to enable them to transform their existing ERM Models to a mature and robust framework.*

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## 7.0 Discussion & Conclusions

The GCC Oil and Gas Companies have been in business, ever since 1930 and have been serving their nations and the world at large, which is evident from some of their overarching strategic direction expressed as *'Energizing the nation'* and *'Energy for our world'*. This obviously suggests that they have some established and tested mechanisms to manage their risks to generate profit and meet the expectations of their stakeholders. With the changing business landscape, and with the emergence of the new ERM, the Middle East Oil Industry is witnessing a change in risk attitude. ERM is not a fad or a new idea or a management process which is nice to have because some other oil and gas entity seem to have it, but is becoming an indispensable *'Business Tool'* now; and is poised to be one of the top *'Business Drivers / Value Drivers'* by itself in the near future.

Clear expectations from achieving Turnbull, SOX; capital requirements from Basel Accords, Solvency; and rating agency's – Standard & Poor's, Fitch Ratings evaluation have indeed become the key factor that have led Banking and Insurance sectors to embrace ERM system. But in the case of the GCC Oil and Gas Companies, none of the stated factors seem to have an impact, but it just offers a raft of *'value-creating opportunities'* and makes *'good business sense'* by embracing an ERM system. How far opportunities are being exploited in these entities are yet to be fully seen. Nevertheless, the GCC Oil and Gas Companies need to embark somewhere in their ERM journey, enabling them to better understand the *aggregate level of risk*, allowing them to take risk with their eyes open, or to mitigate the exposure.

ERM means different things to the GCC Oil and Gas Companies – some comprehend it as *Standardization process* wherein the ERM is facilitating in standardizing the establishment of risk assessment across the entity in a standardized manner. This perspective is focused on establishment of *'compatibility'* and *'interoperability'* which is the cornerstone of a standardization process or a standard. The COSO ERM Framework is regarded as a *de jure* standard akin to the variety of compliance initiative/project in the various business processes. The COSO ERM Framework is also regarded as a *de facto* standard which is being embraced while appreciating the existence of other framework

and also willing to consider the same in future implementation. Standardization is the process of establishing a technical standard, which could be a standard specification, standard test method, standard definition, standard procedure, etc. Standardization refers to approaches for increasing commonality of part, process or product. This is particularly useful for engineering/manufacturing/purchasing decisions thus reducing non-conformance/variability in the process or product. Nevertheless, COSO ERM Framework acknowledges *Integration process* through the overall process of *'linking together different process through a holistic framework'*. The robust framework or system aggregates subsystems co-operating so that the system is able to deliver the overarching functionality. Integration is about *value-addition* to the overall entity that is precisely possible by *'integrating the silos'* within the entity. Although there was a widespread consensus on the importance of ERM, only few of the entities could show substantial progress as ERM is also perceived as Board and Senior Management priority and not necessarily a Line Management priority, driven by a *Centralization process*, particularly where power was consolidated within the entity. This perception is triggered due to the creation of a new function *'Chief Risk Officer'* (CRO) which is also typically a position from the finance discipline located in the corporate/ head office. Nevertheless, the GCC Oil and Gas Companies are far-off from the expected and actual perspective of Integration as promulgated by the ERM Framework, masked by a host of differences arising due to Corporate Culture coupled with the phase of the ERM maturity model. Furthermore, the following Risk Governance characteristics are exemplified in the entities aligning with the three themes identified in the study.

	Standardization	Integration	Centralization
1	'Power is spread out across the Risk Owners in the Business Value Chain'	'Power is spread out across the Risk Owners in the Business Value Chain'	'Power rests at a single source in the overall Business Value Chain'
2	'Management Decision is less proactive and more emphasis is on Compliance to Standards'	'Well coordinated Management Decision with quicker and efficient Risk Response'	'Management Decision is slower and hence slower Risk Response across the Risk spectrum'
3	'Standards may be	'Management supervises	'More interference from Top

	Implemented in part and not in full resulting in conflicts and contradictions across Risk Categories'	Operational Risks with least interference from Top Management, allowing them to reach out to achieve overall Corporate Objectives'	Management in Operational Risks, when they should ideally be engaged with long term Strategic Risks'
4	'One World Language - with better Risk Ownership; standardized Risk Response but could lack creativity'	'Encourages efficient/better Risk Communication'	'Does not allow efficient Risk Ownership as Managers may not acquire requisite exposure and acceptance of risks'
5	'Repression of Management Creativity'	'Better Goal Congruence achieved across and through out the entity'	'Silo management resulting in conflicts and contradictions'
6	'Unequivocal Top down approach'	'Bottom up (360° Feedback)'	'Unequivocal Top down approach'
7	'Standardized Dashboard indicators of KRIs'	'Better analyses and monitoring of KRIs through integration'	'Biased analyses and monitoring leading to unreliable KRIs'
8	'Fairly motivated Management'	'Highly motivated Management'	'Less motivated Management'

GCC Oil and Gas Companies have almost typically set out common *Upstream Petro-Strategies* as summarized below (Table 7.1), but the outstanding risks have not been picked up in the Risk Assessment of the existing Risk Models.

## UPSTREAM PETRO STRATEGIES IN THE GCC OIL COMPANIES

## OUTSTANDING RISKS

### BAHRAIN: Aiming for early Recovery & Hoping to increase Production

- Soliciting IOC's for offshore blocks and onshore deep gas blocks for EPSA
- Soliciting IOC's for existing onshore blocks for DPSA
- Gas Import from Iran

Political Risk - Local unrest  
 Geological Risk - Declining reserves  
 Contract Risk: Inability to attract IOC's

### KUWAIT: Ambitious Production target with less optimism from Political front

- Negotiating performance related contracts with IOC's
- Expand overseas forming international subsidiaries

Strategic Risk - OPEC Intransigence  
 Project Risk - Cost escalations  
 Contract Risk - No IOC participation

### OMAN: Hoping for swift Recovery with a potential to reverse the existing trend

- Advanced EOR Techniques for existing blocks to reverse decline
- Soliciting IOC's for New Discoveries
- Extension to existing Concessions
- Developing Gas Projects in Iran and importing to Oman

Strategic Risk - Strait of Hormuz  
 Geological Risk - Declining reserves

### QATAR: Attracting Interest for rising Production amidst vast Gas Reserves

- Soliciting IOC's for offshore & onshore blocks for EPSA
- De-bottlenecking for capacity expansions
- Emphasis on advanced LNG Contracting Strategy & LNG Trading

Strategic Risk - OPEC Intransigence  
 Market Risk - Increased Competition

### SAUDI ARABIA: Leading the way with vast Oil Reserves

- Soliciting IOC's to explore for an upside in the 'Vast Emptiness'
- Vast oil development plans and expansion projects
- Soliciting IOC's for pursuing Gas development projects forming Consortia

Strategic Risk - OPEC Intransigence  
 Security Risk - Terrorism

### UAE: Gathering pace in Oil Production amidst vast sour Gas Reserves

- Soliciting IOC's for offshore & onshore blocks for EPSA
- Reforming the concessions system for improving competition in IOC's
- Developing LNG Business segment

Strategic Risk - OPEC Intransigence  
 Market Risk - Increased Competition  
 Contract Risk - Potential for driving out enthusiasm of IOC's

Table 7.1, Upstream Petro-Strategies (Source: CASE Studies)

GCC Oil and Gas Companies have almost typically set out almost common **Downstream Petro-Strategies** as summarized below Table 7.2 but with different outstanding risks, which have not been picked up in the Risk Assessment of the existing Risk Models.

## DOWNSTREAM PETRO STRATEGIES IN THE GCC OIL COMPANIES

## OUTSTANDING RISKS

### BAHRAIN: Potential expansions and exploring Markets with New Products

- World's largest Hydrocracking plant producing LSD/ULSD specs
- Building Lube Base Oil Plant through JVs
- New Naptha Cracker in the near future

Strategic Risk - Loss of Saudi supply  
Market Risk - Lacks geographical diversification

### KUWAIT: Boosting Refining Capacity with less optimism from Political front

- New Refinery under completion
- Capacity expansions for ULSD fuels to cater to new market segments

Strategic Risk - OPEC Intransigence  
Project Risk - Cost escalations  
Legal Risk - Host country Compliance

### OMAN: Costly expansions while taking the downstream way

- Constructing an Integrated Refinery & Petrochemical Complex
- Expansion Plans on recently constructed Refinery

Strategic Risk - Strait of Hormuz  
Credit Risk - Non-governmental borrowings bringing project delays

### QATAR: Conventional Oil Production under pressure amidst vast Gas potential

- Expansion projects on Refining Capacity
- Enhancing Condensate Recovery to feed PetroChem segment
- Emphasis on advanced LNG Contracting Strategy & LNG Trading

Strategic Risk - OPEC Intransigence  
Market Risk - Increased Competition

### SAUDI ARABIA: The Biggest & Growing aiming still higher

- Constructing an Integrated Refinery & Petrochemical Complex
- Boosting Refining Capacity through a New Refinery under construction
- Capacity expansions for ULSD fuels to cater to new market segments

Strategic Risk - OPEC Intransigence  
Security Risk - Terrorism

### UAE: Upside potential in Refining Capacity & Refined Products Exports

- Constructing an Integrated Refinery & Petrochemical Complex
- Boosting Refining Capacity through a New Refinery under construction

Strategic Risk - OPEC Intransigence  
Market Risk - Increased Competition

Table 7.2, Downstream Petro-Strategies (Source: CASE Studies)

The tools and techniques used to identify, measure the impact of strategic risks appear to vary, depending the stage of the ERM implementation. However, corporate attempts to identify and manage strategic risks while integrating them into a corporate-wide ERM framework is an area that needs greater focus in these entities. While the GCC oil & gas entities acknowledged the benefits of ERM implementation are increased management accountability, better governance practices, greater managerial understanding of and consensus about corporate strategy; the chasm between Petro-Strategy and ERM Strategy is apparent and greater understanding of strategic risks and operational risks is paramount to the success of the overall ERM implementation.

GCC Oil and Gas Companies have four common and principal *Corporate Objectives* i.e., Corporate Social Responsibility, Profitability, Operational Excellence and Sovereign Reserves Replenishment. The characteristics that drive these corporate objectives are depicted in Fig. 7.1.

- From the Reporting Financial point of view, the *'maximization of shareholder value'* (Power, 2004; Dickinson, 2001, 2005, Lam, 2003) is directly linked to *'Profitability'*.
- From the Operational point of view, the excellence models in terms of *'utilization of state of the art hydrocarbon technology and skills'* are directly linked to *'Operational Excellence'*.
- From Strategic point of view, the *'long term prospects'* of the entities is directly linked to the *'Sovereign Reserves Replenishment'* with utmost co-operation with the Government and Rulers thereof. It must be noted that the long term economic prospects are not essentially linked to financial figures, but with various win-win relationships within the (Arab) society and the grand strategy of the National Depletion Policies.
- From Social point of view, the *'trusteeship between social groups and the value creating national oil company'* is linked to the *'Corporate Social Responsibility'* extending itself further in terms of environmental

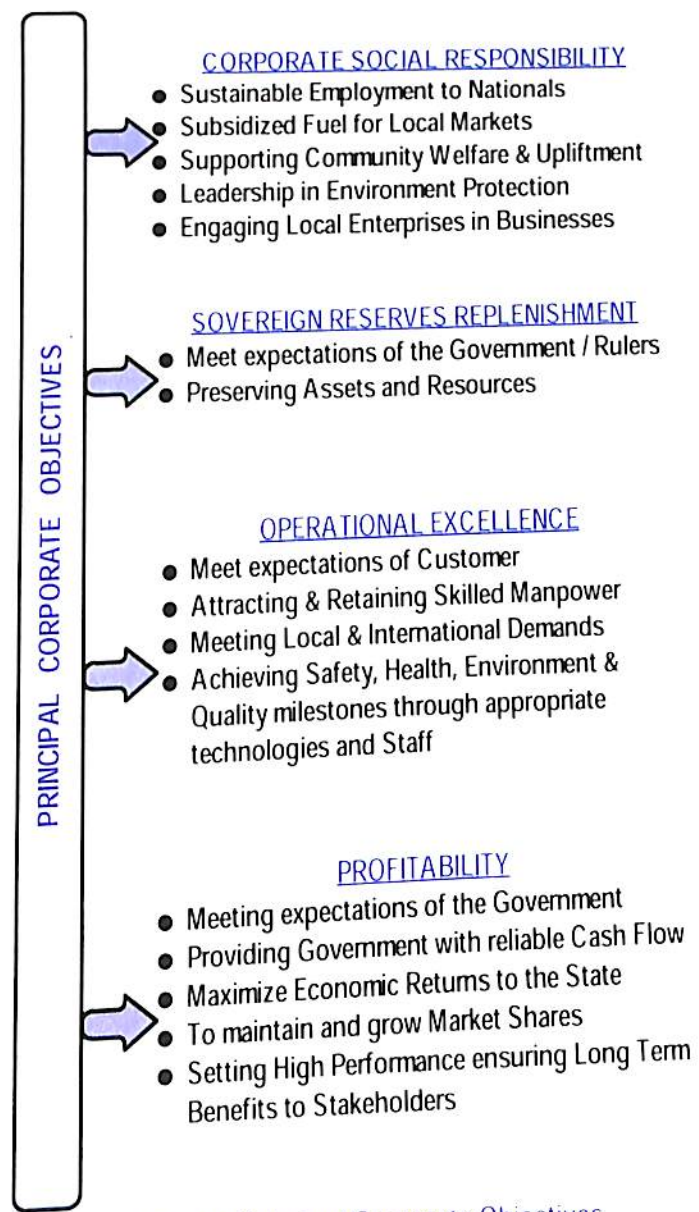


Fig. 7.1, Principal Corporate Objectives (Source: CASE Studies)

protection.

All the above view points have the '*Compliance view point*' interspersed in their business efforts.

However, from Risk Management point of view, one of key objectives in the GCC upstream value chain is 'Sovereign Reserves Replenishment' and in the GCC downstream value chain is 'Operational Excellence' as refiners have a overwhelming operational task of honing its capability to treat varying crude slates while guaranteeing exacting product slates. The ultimate of goal of ERM is to help management in achieving Corporate Objectives (Dickinson, 2001) through appropriate Petro Strategies across the business value chain.

Corporate Objectives in the GCC Oil and Gas Companies requires a joint initiative from Financial, Technical and Strategic Planning personnel while Internal Audit provides comfort to Board on the decisions taken by the above disciplines. However, in the GCC oil entities, all risk management functions is predominantly tackled from financial perspective and also the position is undertaken by finance personnel. Financial perspective does not consider the behavioural, individual risk preferences, psychological and social aspects. In the GCC scenario, most entities are nor exactly commercially run, but have a large burden in terms of Corporate Social Responsibility; nevertheless, the ultimate objective of ERM is to reduce loss due to potential surprises and exploit oppurtunities. However, there is no co-relation between the Petro-strategies being pursued and the ERM strategy as the entities have not actually considered '*management of all risks in a holistic framework*' as espoused in the literature. They have not accomplished an out-of-box thinking as some of the Petro Strategies seem to even trigger certain immeasurable Project Risks, Contractual Risks, Strategic Risks, Credit Risks and Legal Risks. CASE examples include the following:

- An upstream entity pursuing a typical Petro-Strategy aiming to increase Production may have contractual clauses in the Production Sharing Agreements



that may not be attractive enough to encourage IOC participation (or) may even have a potential for an unstable Commercial Model after Discovery phase, leading to Exploration Risk and Contract Risks.

- Similarly, a downstream entity pursuing a typical Petro-Strategy aiming to build, say an Integrated Refinery may opt for non-governmental borrowings (semantics for external project financing) may find itself without sufficient asset backing for collateral leading to Credit Risk and Project Risks. The Risk Propagation in both the above examples can be further exacerbated due to disjointed Risk Governance Framework entirely defeating the entity's ERM strategy of addressing '*all risks*' consequently.

Furthermore, the spirit of ERM and its impact in the entity is not articulated through the Corporate Objectives, Values, Mission and Vision statements. While the entities take considerable pride in their business and technological expertise (Val erie *et al.*, 2006), unfortunately, ERM is regarded as a 'Business Tool' and not as a 'Business Driver' which is attributed to the weaknesses in *Risk Communication* and the *Corporate Culture* in the entities. In fact, for the GCC Oil and Gas Companies, similar to the Insurance and Banking sector, ERM should be regarded as the Principal Corporate Objective as well as the Business Value Driver.

Another typical characteristic of the GCC Oil and Gas entities is the *fragmented role* in Policy Function, Regulatory Function and Operator Function. This has led to a *disjointed Risk Governance Framework*, which is not favorable for an effective ERM implementation. By building on advantages through synergies between the building blocks of Oil Governance processes, entities can attain strategic Competitive Advantage and effective Corporate Governance.

Driving forces for ERM implementation are *self fulfilling* that includes Corporate Governance, Leadership of CEO, Good Business Practice, Initiative of Board of Directors and Internal Audit Recommendation. Corporate governance issues are

receiving greater attention in both developed and developing countries as a result of the increasing recognition of the effects of corporate governance on company performance and their continuity. In the case of Middle East oil companies, leadership of CEO coupled with Board initiatives make Audit Recommendation easier to implement, in the case of ERM; akin to a *cause-and-effect scenario* in management decision making (Burt & Van der Heijden, 2003). However, too many Audit Reviews exist in upstream and downstream business processes that are rendered by external and internal parties. Several external audits are covered in refinery operations, finance, IT, legal, geophysical, laboratory, reserves estimate, maintenance, reliability, apart from the usual Environment, Health, Safety and Quality audits. In a scramble to comply with various technical codes and standards, *many silos have been created* in the GCC Oil and Gas Companies in terms of risks and compliances by external assurance providers. Many of these silos have typical risks and are based on same underlying data, thereby *duplicating internal audit efforts*. Furthermore, the entities utilize silo type risk management and try to practice ERM within the broader scope of a specific disciplinary silo. The various disciplines, while contributing on ERM, bring their own silo histories and experiences (Aabo *et al*, 2005; Power, 2005) and believe that they are the most salient business perspective, and try to take control (Kloman, 1992) and alter each other's opinion (Skipper, 2005). This leads to the greatest implementing challenge i.e., *Risk Communication*. While communication is often considered to be a challenge with any emerging topic, a major impediment is due to *personnel attitude* and *corporate culture* in the GCC Oil and Gas Companies which also include expatriate staff, mostly in lower & middle management. This is one of reasons wherein there is descent in the attitude of middle management levels and they presume that ERM is only a Board or Senior Management priority.

Furthermore, an *astute CRO* with a broad interdisciplinary background or a Risk Committee with appropriate interdisciplinary members that will fill the gap in effective Risk Communication. Most of the other significant implementing challenges can be attributed to limitations in existing Corporate Culture and sub-culture (McKenna & Beech, 2002) across the existing value chain.

Whilst relatively less attention is given to ERM performance metrics, all GCC Oil & Gas entities have nevertheless established a **Band Score** methodology comprising of aggregated financial, operational and compliance risks. Most score did not seem to address the strategic risks as it is further corroborated in the gaps between ERM Strategy and pursued Petro-Strategy. The above Band Score is derived from an **Impact / Likelihood Analysis** across the risks identified in the various business processes. Various sub processes use deterministic metrics in processes like reliability engineering, plant performance, field services and maintenance, project management and finance; grossly ignoring the soft measures for pursuing a Petro-Strategy. **Unification of risk metrics across the value chain** is an operational challenge in itself for the GCC Oil Companies to break the silo type management thinking. Furthermore, entities lack a mechanism to recognize the soft initiatives and motivation for managing prudently while mitigating a risk or exploiting an opportunity via appropriate **incentive schemes**.

More prominently, the existing risk models did not fully align with the Internal Audit focus and the Petro-Strategies were weak in identifying and exploiting lost opportunities. Risk models were revisited at intervals rather than being a contemporaneous update as these entities had an **ERM process** but not a dedicated **ERM function** in the Risk Governance structure.

It is imperative that such risk models recognized transient conditions in business cycles like the new business risk – **‘Deepening Recession’**. This has triggered a new risk – **‘Business Model Redundancy’** which is also the top 10 Global Business Risks according to a recent 2009 E&Y Report. This could force leading firms like the NOCs of the Middle East to reinvent their Petro-Strategies and the Risk Governance structures.

The foremost objective of this academic work is to answer the five research questions; and the detailed analyses of the CASES reveal the following:

1. This study demonstrates that the understanding of ERM is fairly inconsistent within the Middle East Oil Companies. While the perception considerably differs from one organization to another and also between different disciplines and

management echelons, the majority of entities believe that it is Board and Executive Management priority to achieve a robust ERM Framework.

2. This study identifies that the most significant driving forces to develop an ERM Framework in the Middle East Oil Companies are self sustaining by virtue of the strong interconnectivity between the emerging drivers in the Middle East oil industry. The most significant motivators being identified as Corporate Governance, Leadership of the CEO, Good Business Practice, Initiative of the Board of Directors and Internal Audit Recommendation. Other outstanding motivators influencing are Market Competition, Changing Risk Landscape, Investment Community Pressure and Brand Image.
3. The study finds that existing ERM Models in the Middle East Oil Companies spread from a stage of 'completely established framework' with potential to test effectiveness of all components of the ERM Framework, to a stage of being 'under construction' with pilot project and testing in progress. Internal Audit Plan does not necessarily derive their 'Audit Focus' from the Corporate Risk Register while Strategy Development is also not fully aligned to the ERM Strategy. The materiality of the risks is entity-specific and has a strong relationship to Corporate Culture and management ethos thereof. Furthermore, there is no scope for 'Benchmarking the ERM Framework' across the entities as risk preferences vary from one organization to the other. However, there is credence to the fact the initial implementation of the framework is the biggest challenge before the process can reach its full potential and these oil and gas entities have already embarked in their journey in ERM system.
4. This study identifies the following implementation challenges:
  - a) The two most significant Structural Challenges are 'Risk Communication' in terms of a consistent framework and a 'Lack of Risk Awareness at Board level' which are primarily due to cultural barriers and disjointed Risk Governance Framework.

- b) The two most significant Operational Challenges are 'Determining the Risk Owners' and 'Risk Awareness at lower echelons' which are primarily due to cultural barriers, framework perception and descent amongst lower levels.
  - c) The two most significant Technical Challenges are 'Data Accuracy' and 'Risk Measurement' which is primarily due to the ignorance associated with subjective evaluation and lack of skills to estimate/evaluate risk return scenarios.
5. The study establishes that the most significant Risk Metric in the Middle East Oil Companies is the Band Score generated from Impact / Likelihood Analysis which determines the category of risk. The organizations have clearly differentiated from Key Risk Indicator (*which drives the Operations/Business Value Drivers*) to Risk Metrics (*which indicates a standard unit of measure*). However, the approach to measure the portfolio of risks is not apparent. The integration of risk metrics within the various risk management in silos to a unified risk metric can be viewed as an emerging challenge for these organizations.

## Conclusions

In summary, the study concludes that the level of understanding of the nature of ERM varies significantly between GCC entities and across the various sections of the entity. Effective ERM requires an interdisciplinary approach and it is dominated by a single discipline in all the CASES. ERM requires capabilities not only to be a Generalist in terms of understanding the hydrocarbon value chain, but also to be a Specialist with a focus on risks to develop and manage a portfolio of risks. It requires the collaboration from Technical, Strategic, Finance, Legal, IT, EHS, Quality, Human Resources, Marketing, and as well as Plant Security; which are necessary for the paradigm shift, emerging through convergence of the shareholder value models and the risk governance models leading towards corporate reputation management.

It is acknowledged by many scholars that '*anonymity is believed to increase the veracity*' of the findings. The case study has revealed a number of differences and inconsistencies between the ERM Framework as espoused in the literature and the existing risk models in the Middle East Oil Companies. The recommendation for the **Best Practice Approach** along with a practical and region-specific **Action Plan** for successful ERM implementation in the Middle East Oil Companies is presented in the following section of this report.

### 7.1 Recommendations for Best Practice

The next objective of this academic work is to recommend the best practice approach for successful ERM implementation in the Middle East Oil Companies.

Though ERM is conceptually straightforward, its implementation in practice is not. A lot more investment and progress is needed before many oil and gas entities in the Middle East can claim ERM is strongly embedded in their organizations. In particular, the less tangible aspects of ERM i.e., '*risk management culture, capability and tone at the top*' was rather underdeveloped than the '*functional structure*' of the framework. Furthermore, in the functional structure of the framework, the complexity of ERM at every level is also daunting, raising many tricky questions—

- How does the entity effectively determine the universe of all risks?
- How does the entity perform an assessment to prioritize the most important ones?
- How does the entity design a system of controls that effectively mitigate the risk?
- How does the entity make sure the controls are working at acceptable levels?
- How does the entity integrate all of this into daily functioning of the business?

There are certain givens in the Oil Governance of the GCC states around which oil and gas entities (CASES) operate currently. The region specific **Change Drivers** that are responsible for developing best practices in ERM are suggested below. Like many things in management theory, it is easier said than done.

### **Moving from fairly Conservative to Advanced Risk Strategies**

The study has revealed that the risk management strategies of the region's corporates remain fairly conservative focused on the downside of risk. A long habit of not thinking a thing wrong gives it a superficial appearance of being right. This outlook is best revealed as the entities place far more emphasis on risk mitigation and preserving value rather than adding value and using risk information to gain competitive advantage.

ERM has the potential to provide an equally strong upside as well as mitigating downside exposures (Ward, 2006). The upside is optimizing opportunities to add greatest value and using risk information to gain long-term competitive advantage. The emphasis on ERM should gradually shift to *exploiting the upside of opportunity* and the less-tangible aspects of ERM i.e., Corporate Culture (risk culture) and Risk Management Capability. Risk Culture is the DNA of the organization and therefore a strong risk management culture is fundamental to the success of the ERM.

It should be borne in mind that ERM represents a starting point. Just as the concept of risk has evolved, so too, is Corporate Governance. New challenges will arise, and with them will come new approaches to managing risk. In fact, that is the very nature of risk – it is focused on the future, which always involves uncertainty. That means the Middle East Oil and Gas Companies will need to adapt to ERM and Corporate Governance as their methods respond to new risks and uncertainties.

### **CEO's Alter ego**

The study has also recognized that one way to determine the company's attitude toward risk is to look at the senior executives' attitudes toward change. A strong risk management culture requires the right *'tone at the top'* driving everyday behaviours of people from the board level to the front line staff. C-suite executives can be classified into one of the three categories. (Table 7.3) while dealing with corporate change management (Musselwhite & Randell, 2004).

<u>Originators</u>	<u>Pragmatists</u>	<u>Conservers</u>
<ul style="list-style-type: none"> <li>▪ Prefer change that challenges current assumptions and beliefs.</li> <li>▪ They like change that is expansive in nature and that may challenge current organizational norms, attitudes, and operating systems.</li> <li>▪ They're good at initiating change but may lack the skills needed to effectively implement.</li> <li>▪ Originators like change for the sake of change.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Prefer change that addresses current and practical problems.</li> <li>▪ When they believe the change has merit, they can effectively build support.</li> <li>▪ Pragmatists can find the best leverage points to initiate change that generates immediate benefits.</li> <li>▪ Pragmatists are good in tactical control of the solution.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Prefer change that is measured, gradual, and well thought-out.</li> <li>▪ They like change that can be implemented without creating chaos or stress on organizational systems.</li> <li>▪ They also prefer to preserve the parts of the organization that are working.</li> <li>▪ Conservers are good with follow through and detail.</li> </ul>

Table 7.3, Behavioral Characteristics of C-suite Executives (Source: Musselwhite & Randell, 2004)

From the above description of the three groups, we can understand the chasm seen in adopting organizational change towards effective implementation of ERM framework; and the following correlations can be made on risk behaviours.

- Originators tend to enjoy risk, possibly oblivious to the consequences.
- Conservers are less comfortable with risk and are ever-aware of the possible consequences.
- Pragmatists can realistically assess the current situation and the appropriate level of risk that is justified.

The consequences of these behaviors and the role each of these types of people play in a smart risk culture can be viewed as - Originators can initiate the risks necessary to create the innovations needed to respond to market changes; Pragmatists can ensure the necessary steps are taken to achieve the desired outcome; Conservers can ensure the systems are in place to protect the organization from undue risks associated with the change and to force the question- why should we do this?

Based on the CASE analyses, most of the conflict can be attributed to *misunderstandings and negative perceptions between and among these change preferences.* Notwithstanding the changes in Board members and C-suite executives due to various reasons especially due to disjointed governance structure in GCC Oil and Gas



Companies, the C-suite Executives need to cultivate a culture that incorporates all three of the above perspectives or at the least exemplify an alter ego embracing the above qualities, in spite of their personal preferences and set the tone at the top without ambiguity.

### **Creating a contagious commitment to ERM**

The study has revealed that there is a significant chasm between the proponents of ERM and the players in the existing silos. Implementing ERM has taken many shapes in the CASES. Some have only one personnel in charge of risk, under the aegis of a C-suite Executive; while others seem to employ a team.

According to Gladwell (2000), *Law of the Few* is based on three types of people in an entity – Mavens, Connectors and Salesmen.

- *Mavens* are those who always seem to know the important answers. They are the gurus to whom others consistently turn to for advice and recommendations.
- *Connectors* are people who just seem to know everyone. They connect people from different groups who would otherwise not be connected.
- *Salesmen* have the ability to persuade, and they are driven to persuade when they really believe in something.

A very few people who have these skills can make a huge difference to their organization in how/if a business idea spreads while creating a contagious commitment to it. One of the primary requisite is getting the *right mix of members in a committee* chosen to implement a business idea. This leads to the emphasis on enhanced Risk Awareness and Risk Communication with the members; and enhanced Risk Transparency of the entity and Risk Ownership being advocated from board level to the front line staff. This characteristic is especially vital in the ERM implementation of the Middle East Oil Companies. As companies invest more in ERM, they equally should be more transparent about risk. This is because one very important way for companies to *raise the visibility of the risk discipline* and embed ERM in their organization is to be more transparent

internally and externally (Ward, 2006). An open disclosure and commitment can be a powerful driver and convince other stakeholders of the ERM credentials.

ERM is a *four players' game* – Board of Directors, Internal Audit Team, Executive Team and the Risk Committee (Marcus Evans Conference, London, 2007). Corporate fluency with the law of the few is twofold (Shapiro, 2003).

- First it requires understanding of the mavens, connectors and salesmen to spread change in the Oil and Gas entities.
- Second it involves identifying who these mavens, connectors and salesmen are within the organization and getting them into the advocate pool in the Oil and Gas entities.

Risk Committee especially with the right mix of members possessing an ability to create a contagious ERM commitment is recommended for better implementation of ERM in the Middle East Oil and Gas Companies. Furthermore, leadership voices should help create shared beliefs, shared boundaries, effective decision-making processes and effective change management processes (Brewer, 2008; Simon, 1994). Infusing an organization with shared beliefs includes reinforcing the entity's mission, ethical tone, and attitude towards risk and employees. It is recommended that Risk Policies and Mission Statements including Audit Charter should acknowledge and incorporate the ERM initiatives to drive the effectiveness of the ERM framework in the Middle East Oil and Gas Companies.

### **Unequivocal Governance Framework in the Oil & Gas Sector**

The study has revealed that there is a significant overlap between the players of oil governance leading to ambiguity in the Risk Models.

According to Askari (2006), a significant number of distortions and inefficiencies in the business indicators of oil exporters in the Middle East have been primarily due to poor quality of governance, getting further exacerbated and nebulous due to OPEC intransigence.

As an advocate of ERM, CEO should exemplify a dynamic leadership style to develop a strong institutional governance model between policy maker, regulator and operators in the oil and gas sector. Defined *guidelines, roles and responsibilities*, fostering *ethical standards* and *integrity* and preventing *conflicts of interest* are recommended for the Middle East Oil and Gas Companies.

### **Paradigm shift in Internal Auditing process**

This study has revealed that Internal Audit does not play an active role in the ERM implementation. Internal Audit can play a unique role in this exciting new area of corporate management but only if it is up to the challenge and only if it is empowered by the Board of Directors of the Middle East Oil and Gas entities.

It probably goes without saying that Internal Auditing can only participate effectively in the implementation of ERM if it has embraced its own paradigm shift from 'Compliance Based Internal Auditing' to 'Risk Based Internal Auditing' (RBIA). It is important for the Middle East Oil and Gas entities to understand the *value-adding service through RBIA*. Embracing this approach addresses the need for an efficient tool for reporting and monitoring risk.

The genesis of ERM in most CASES comes from Audit Recommendation. However the recognition, importance and effectiveness of ERM comes not from mere audit recommendation; but when the Corporate Risk Register is driving the Audit Plan through a sharp audit focus on appropriate 'Business Process Objective', 'Scope of Audit' and 'Review of Risks'. According to several previous studies by IIA, whether by coincidence or not, paradigm shifts have occurred for both internal auditing and risk management, and they are progressing through the business world on parallel tracks. They share much in common – both offer a new, modern way of looking at very old problems; both can result in significant improvements in business efficiency and ERM effectiveness; and both point the way to the future of coping with the ongoing problem of managing for uncertainties.

### **Managing the entity's Risk Quotient (RQ)**

The study has revealed that all the NOCS have almost stereotypic set of corporate ethos in terms of stating the purpose, objective, direction, mission and vision statements. Nevertheless, it should also embrace certain other cultural characteristics like:

- Transparency to and **ability to respond to changes** in the external environment
- Stable, unequivocal, **effective systems** for getting things done

Interestingly, the above two characteristics '*ability to respond to changing markets*' and '*stable operating system*' appear mutually exclusive. But companies that learn to manage the positive tension between these divergent qualities have created a smart-risk culture—one that values innovation within an infrastructure that can deliver change while protecting the organization from the associated risks. Musselwhite (2005) calls this ability to **successfully manage the positive tension** a company's risk quotient (RQ). GCC Oil and Gas Companies should view innovation as a daily on going process and not just before the Board Review. ERM leaders should collaborate with interdisciplinary members to assess effectiveness of ongoing operations and /or risk mitigation process as well as the impact of innovation. Employee empowerment to promote employee commitment goes a long way in managing the RQ.

### **A pragmatic Bottom-Up approach (to parallel the Top-Down)**

The genesis of ERM in most CASES also comes from Board initiatives; the study has revealed that most CASES have a tension in terms of accountability. While Board responsibility should be limited to Oversight (Sobel & Reding, 2004), some believe that it is Board/ Executive Management's responsibility to uphold ERM.

Managing risk, like managing cost or revenue, cannot be done from the top alone. It must be owned by the ones closest to its occurrence i.e., better Risk Ownership is required in the Middle East Oil and Gas Companies. Addressing the challenge of change and establishing successful ERM through a series of bottom-up steps that build on existing functional capabilities (Mosaimann, 2008) is recommended. This should also not be seen

as replacing a top-down approach. This should be seen as acting in parallel, in an iterative, mutually re-adjusting and reinforcing manner. To develop such a process, Middle East Oil and Gas Companies must have appropriate *Incentive schemes* to motivate a bottom up process, improve Transparency and communicate unequivocally the Board's Risk preferences to the front line staff. Extending the risk assessments and *Integrating Internal Audit findings* is the next practical step towards better implementation.

In contrast to the Board of Directors who owns the Corporate Governance process, Management owns the ERM process. Using a combination of a top down/bottom up approach is recommended as risk can be appreciated at both macro and micro level. Business decision can then be made confidently based on the corporate risk appetite. This approach also ensures that there is no gap between the Executive Management and Board of Directors' perception of the ERM and the business reality.

### **Embedding ERM with Strategic planning process**

The study has revealed that the CASES had a noticeable difference by implementing ERM Framework, which is a proactive focus on risks rather than a reactive approach, including improved accountability and responsibility in various business processes along the value chain. However not all risks were considered and there was a significant chasm between the Petro-Strategy being pursued and the ERM Strategy being implemented. This leads to suggest a better mechanism to communicate the Risk Appetite and Risk Commitment is paramount to Risk Assessment and as a consequence better aligned Strategy development.

Research on high-performance companies has provided valuable insights about risk management. One of the challenges facing management teams is how to link Business Plans and ERM (Frigo, 2008). Recent global events show us that strategy and risk management must be closely linked to be effective in protecting shareholder value.

Risk Commitment to consider cross-segment risk issues and interdependencies to help enterprise remediate significant risk issues is critical to attain the ERM maturity model. A clearly articulated Risk Appetite with clear Risk Prioritization and interdisciplinary coordination is recommended to achieve Goal Congruence between Petro-Strategy and Risk Strategy in the Middle East Oil and Gas Companies. Several studies (Moody, 2005) have concluded that as early adopters begin to complete their ERM implementation, they are finding it critical to integrate ERM into the firm's strategic management programs. While the initial steps towards ERM implementation is aimed at compliance to the framework and governance issues, in order to build on a sustainable ERM function and a process, firms must now incorporate ERM into the strategic planning process. Evidence suggests that some firms have realized that ERM is more than just a defensive strategy. If properly implemented, ERM can be equally an effective offensive strategy that can provide a plethora of competitive advantages. Several professional bodies have identified that emerging research topics are in the exciting area of integrating ERM with strategy development.

## 7.2 Suggested Action Plan for ERM implementation

In summary, the following region-specific and practical Action Plan for the Middle East Oil and Gas Companies can transform their existing ERM Models to a mature and robust framework.

1. Instigate better Oil and Gas Governance framework in the Oil and Gas Sector and push for reforms aimed at better Corporate Governance, to enable operators to design a robust ERM Model upholding established integrity, ethical standards and without conflicts of interest between policy maker, regulator and operator.
2. Assume a Leadership style that fosters a Management Philosophy which creates and infuses shared beliefs that enable organizational change and innovation in terms of enterprise wide risk management.
3. Form an effective Risk Committee and the advocate pool using the best mix of personnel who can lead to significant adoption of ERM best practices across ever-wider circles of organizational personnel.
4. Embrace Risk Based Internal Auditing which is the current best practice, which has superseded both controls based auditing and basic compliance auditing, but still maintains elements of both.
5. Establish an Audit Charter that declares the alignment of the ERM for addressing the Audit Focus on critical business areas as identified by ERM and highlight any potential gaps thereof. This will develop a more comprehensive risk model or risk register in turn and will facilitate and enhance the process of risk identification and assessment and hence setting up appropriate mitigation measures. This also highlights and monitors the gap between Petro-Strategies and ERM Strategies and any risks thereof which go unidentified.
6. Develop a strategic Internal Audit Plan using the Corporate Risk Register thereby having a prioritized audit coverage designed to render independent assurance as to the adequacy of risk management arrangements.
7. Promote a risk-focused culture, by declaring the ERM initiative in the Company's Vision and Mission Statements to foster Risk Discipline as a Business Value of the entity leading to better awareness. Risk Awareness is a powerful tool because incumbents who understand the company's approach tend to self-align.

8. Introduce Incentive scheme for improved Risk Ownership and promoting Bottom-Up approach whilst retaining the Top-Down approach.
9. Exploit the natural links of ERM and Strategy Planning. ERM as a Strategic Business Driver should examine how well a Petro-Strategy will perform under different scenarios and events. ERM must look closely at scenarios and include 'all risks', where the Petro-Strategy could perform so poorly that it could potentially result in significant losses, destruction of shareholder value, or lead to damaged corporate integrity and corporate reputation.
10. Set out a Common Risk Language conveying a threshold for material risks for processes across the upstream and downstream business value chain, thereby Board's Risk Appetite is openly expressed. Furthermore, this should also include a common Investigative Policy for incidents & a common Incentive Policy (as mentioned in item 8) for efficient and effective Risk Response and pursuing opportunities as well.

Finally, at its most mature phase, ERM is much more than just compliance, hazard and adverse event management technique (Ward, 2006). While there is a mandate on these essential tasks, ERM should be viewed as more a Business Driver or enabler, facilitating the identification of strategic opportunity and risks; realizing opportunities for gain and minimizing losses; and driving long-term competitive advantage and value creation while also protecting the entity's key Value Drivers. Information from ERM Framework is an important adjunct to oil and gas company's normal operations and a sound basis for business surveillance process.

As much as ERM is essential to better managing uncertainty (both risk and opportunity) and optimizing performance, it is not a panacea, but nevertheless builds business resilience. No matter how well designed or mature, even the best ERM framework can only provide a reasonable assurance that the company's strategic objectives can be achieved and their assets and revenue streams protected. This is because no process or system can provide absolute certainty about the future. At the same time, there are limitations inherent in all management processes and certain events will simply be



outside of management's control. However, it does not mean to imply that ERM will frequently fail. Rather, applied holistically and effectively implemented, ERM framework should enable management in the following:

- Balancing opportunity and risk
- Enhancing and protecting the entity's reputation
- Embedding continuous process of improved decision-making and performance
- Promoting an environment with fewer negative surprises

Building that framework nevertheless requires a number of interrelated components that work in harmony and iteratively, evaluating transient conditions, support commitment, execution, goal congruence with the appropriate Petro-Strategies & Risk Strategy, and sustainability of ERM as an integrated risk management framework in the oil and gas entities.

If properly implemented, ERM initiative in the CASES will mature over time from tactical solution to a strategic imperative with the ultimate goal of improved performance. In its ongoing search for potential, ERM will produce results from risk elimination to preparation for possible problems to opportunity exposure. NOCs in the Middle East are evolving, seeking an elusive balance between their national and commercial missions; and ERM when applied rightly will produce the desired results, enabling them with the technical and business skills to develop responsibly the immense petroleum resources entrusted to them.

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