Volume One 2007

PwC

Industry Insights*

Harnessing opportunities for growth

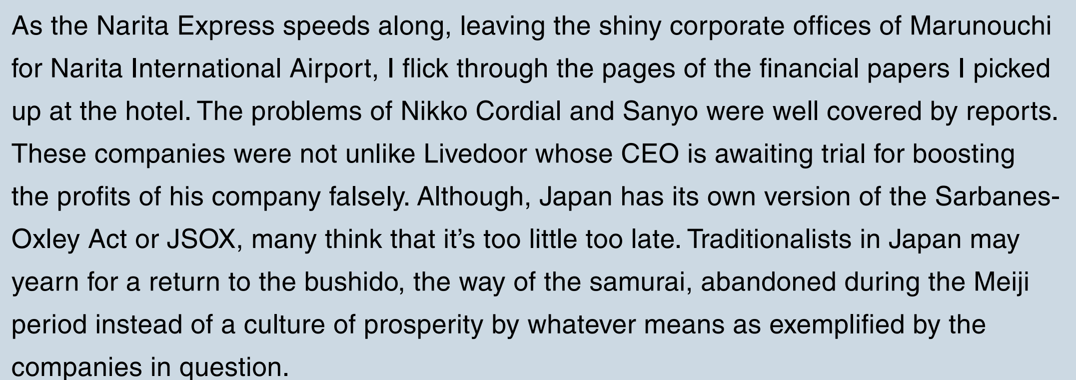
*connectedthinking

Industry Insights*

Harnessing opportunities for growth

Kyle Lee
Managing Editor

Editor’s Note



As the Narita Express speeds along, leaving the shiny corporate offices of Marunouchi for Narita International Airport, I flick through the pages of the financial papers I picked up at the hotel. The problems of Nikko Cordial and Sanyo were well covered by reports. These companies were not unlike Livedoor whose CEO is awaiting trial for boosting the profits of his company falsely. Although, Japan has its own version of the Sarbanes-Oxley Act or JSOX, many think that it’s too little too late. Traditionalists in Japan may yearn for a return to the bushido, the way of the samurai, abandoned during the Meiji period instead of a culture of prosperity by whatever means as exemplified by the companies in question.

As SQ11 sets its course south westerly for Singapore, I caught up with Singapore news. Singapore banks were reporting record profits as did a number of companies which are household names. Could the sad and sorry sagas I read on the Narita Express happen in Singapore I wondered?

The newspapers also carried reports on the strength of the balance sheets of global technology companies and the fact that a number of them have been buying back large numbers of their shares on account of perceived undervaluation by the capital markets. The cash hordes of these companies clearly indicate strong sales and/or operational cost savings. What else are they getting right and how are technology companies shifting the paradigm as the world moves relentlessly towards the next generation of broadband and convergence?

The subdued hum of the four massive jet engines of the Boeing 747 filled the cabin when I removed the headphones and asked myself the burn rate of Jet A1 at cruising altitude. Where is the oil industry heading with crude oil trading at US$60 a barrel?

The Captain announced landing station for the cabin crew as the plane banked left and straightened for a northerly landing at Changi. I thought about the recent Budget which some analysts described as “Blue Ocean” to enable Singapore to leapfrog its competitors. What must companies do to take advantage of the tax changes?

The answers to some of the questions can be found in this issue of PwC Edge. I hope you enjoy reading it as much as my colleagues and I have in bringing it to you. ■

Kyle Lee, Managing Editor

Contents

The changing treasury – Optimal use of technology 2 – 7

Many corporations in Singapore are increasingly realising the need for enhanced treasury controls to meet requirements of the Sarbanes-Oxley Act or its equivalent. Chris Matten and Chay Yiowmin discuss how treasuries can leverage technology to improve controls through automation and implementing best practices.

Evolution of product and finance control – A Singapore story 8 – 13

Reflecting Singapore's global strength as a key financial services hub is the significant continued offshoring of product and finance control functions to Singapore by many major global financial services organisations. Yeow Chee Keong and Mark Jansen highlight the control implications and potential areas for enhancement as organisations continue to expand into Singapore.

Beyond operational savings
– Benefitting from strategic simplification and sourcing in Asia 14 – 23

There is a common but flawed perception that the immediate benefit of strategic simplification and sourcing initiatives is cost savings. Greg Unsworth, Paul J Zanker and Thorsten Reelitz share how leveraging simplification and sourcing enhances the discovery and mobilisation of distinctive capabilities of companies.

Gearing up for convergence 24 – 31

Convergence over the years has evolved with the coming together of digital media and communications technology and is driven by the evolution of the digital consumer. Greg Unsworth and V Maheshwar highlight the challenges faced by the industry and how companies should plan and execute their strategies to ensure growth and success.

Top technology trends for 2007 32 – 39

There is tremendous growth and development of new technologies fuelled by convergence, particularly for the consumer market; re-alignment of operations and pursuit of greater efficiencies and productivity by enterprises. Greg Unsworth shares his forecast of the trends for 2007 and beyond.

Upstream industry – The challenges ahead 40 – 47

The year 2006 was one that saw much focus on the oil and gas industry, primarily due to continued high oil prices and supply concerns resulting from world events. Ong Chao Choon and Sanjeev V Gupta shed light on the challenges which are affecting the dynamics of the industry.

Don't get caught out by GST when you outsource 48 – 53

We now know that the GST rate will increase from 5% to 7% on 1 July 2007. For businesses, the early increase in rate means they will have to move swiftly to get everything done in time. Koh Soo How cautions how this will impact outsourcing plans.

Singapore's Maritime Finance Incentive
vis-a-vis Germany's and Korea's 54 – 59

The Maritime Finance Incentive administered by the Maritime Port Authority is introduced at a time when Singapore pushes towards improving its competitive edge to become one of the leading international maritime centres. Ho Mui Peng and Lina Lew summarise the key features of Singapore's Maritime Finance Incentive vis-à-vis Germany's and Korea's.

Chris Matten
Financial Services Industry Practice

Chay Yiowmin
Financial Services Industry Practice

The changing treasury

Optimal use of technology

Many corporations in Singapore are increasingly realising the need for enhanced treasury controls to meet requirements of the Sarbanes-Oxley Act (SOX) or its equivalent. One such improvement would be in the area of treasury automation.

Treasury technology continues to be a challenge for many treasurers and is arguably an area with the most opportunities to improve the effectiveness and efficiency of treasury process and create closer connections to other business units. The optimal use of treasury technology to create a fully integrated environment is still very much a "holy grail" for treasurers. ■

Enhancing treasury controls for Sarbanes-Oxley compliance

Over the past five years, corporate treasurers have seen many reforms, including the introduction of new US and international hedge accounting requirements (such as International Financial Reporting Standards or IFRS), the Patriot Act and SOX. These reforms have provided treasurers with opportunities to define their strategic position within the corporate framework.

With the gradual move towards a SOX environment, the issue faced by many corporations is whether increased treasury automation ensures a more reliable internal control environment. Beyond the efficiency gains, the key driver of such initiatives is the need to streamline the SOX compliance process.

Process automation enables treasury departments to improve and standardise their control procedures. The automation of treasury process eliminates the need for manual controls which are prone to human error. It also provides chief financial officers, treasurers and management with real-time access to key online metrics and reports; measurement of ongoing treasury performance and timely detection of potential risks for proper remediation.

Two years after SOX implementation (where larger public enterprises have to meet the new financial reporting and certification mandates for end-of-year financial statements filed after 15 November 2004), treasury professionals are more aware of their compliance role and looking into ways to enhance controls in their treasury systems to eliminate inefficiencies and reduce risks.

Impact of SOX on corporate treasury

At the business process level, the treasury department is responsible for documenting, assessing and improving key internal controls relating to all processes affecting the accuracy and dynamics of financial reporting.

The responsibilities of the IT department include documenting, assessing and enhancing IT controls of the information systems supporting the treasury process. These include spreadsheets, bank websites and treasury management systems. These controls can be broadly categorised into IT general controls and application controls.

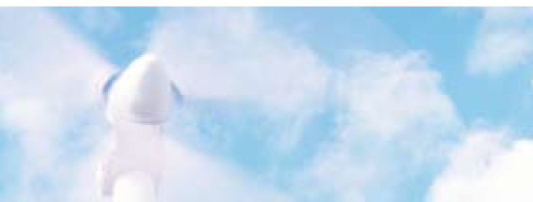
IT general controls ensure compliance with corporate IT governance standards as they relate to treasury applications and their underlying infrastructure, such as operating systems, relational database management systems, communications and interfacing utilities.

Application controls are more specific and cover both the adequacy of system access to segregate roles and responsibilities, and incorporation of automated controls that ascertain computation and reporting accuracy.

Advantages of automation

Automation enables treasury departments to improve the effectiveness of their internal controls. Compliance efforts are streamlined by eliminating highly manual and labour-intensive control procedures that are the sources of errors, omissions or fraud risks.

From a SOX perspective, the benefits of treasury process automation are two-fold. Firstly, the system provides greater automated controls as it replaces labour-intensive manual processes and controls. Secondly, it improves information security and governance.



Automated controls at a glance

Within the cash management process, bank reconciliations and posting of accounting entries will be automated, thereby reducing risks of errors or fraud. The system will provide complete automation of the approval workflow for payments and fund transfers. Segregation of duties will be automated such that no initiator of a transaction may perform the subsequent approval function.

From an investment management viewpoint, automation will enable treasury to manage its corporate investment policy across various business units and subsidiaries, while ensuring that transactions performed by these entities comply with the corporate investment policy. The system will provide automated approval workflow for investment transactions as well as automated market-to-market functions for derivatives and other financial instruments. Apart from automated reconciliations, the system will be able to calculate interest and dividend income and related accruals as well as investment-related amortisations.

For debt management, there will be similar automated controls as mentioned in the above two processes, including loan register, automated bank reconciliations, zapproval of workflow for financial commitments, tracking and computation of amortisation, interest expense and accruals and debt-related risk exposures.

From an overall perspective, tracking and computations of risk exposures would be automated from a risk management perspective. In addition, more sophisticated workflows may involve several levels of approval based on the types of transactions and threshold amounts. Lastly, not only will automated workflows enable organisations to strengthen and harmonise their control design across the enterprise, they will also improve the control effectiveness by providing greater assurance that corporate policies are adhered to and controls are operating as designed.

Information security and governance

Corporations are able to achieve compliance with new SOX information security and corporate governance standards through automation of the treasury process. Treasury systems allow data and information integration

among various applications which leads to straight-through processing, thereby limiting the risk of errors or fraud.

In addition, increased automation eliminates the use of spreadsheets, which presents many risks, not just in the context of SOX. Computation errors due to input errors, incorrect or missing formulas and improperly linked worksheets are frequent in a spreadsheet environment. Spreadsheet data can also be compromised due to uncontrolled or unauthorised access.

Treasury compliance and beyond

Corporations faced with SOX compliance requirements are now focusing on streamlining their overall compliance process and gaining better visibility of their treasury controls and operations. In turn, treasury systems may be viewed as a tool that management may rely on to determine the adequacy of automated controls over the treasury process.

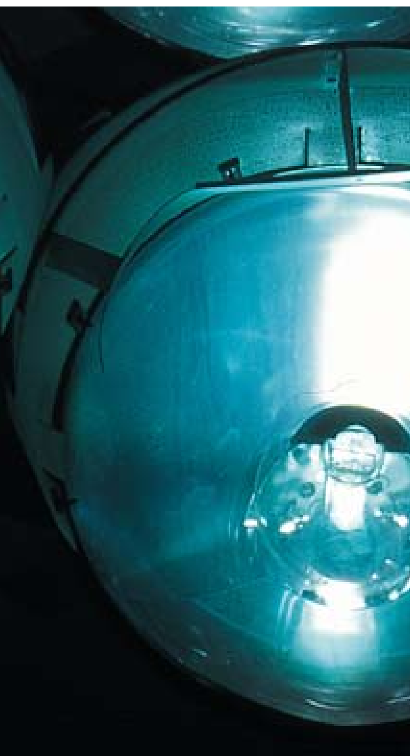
As part of the ongoing SOX process, treasuries are exploring ways of leveraging technology to improve controls through increasing automation and implementing best practices across the organisation. Indeed, automation improves control design effectiveness by creating key controls that would be difficult or impractical to implement in a manual environment (e.g. sophisticated payment workflows, interfaced applications and data encryption). In addition, operating effectiveness will be greatly enhanced through ensuring that these controls are in place and operating as designed. ■

About PricewaterhouseCoopers Financial Services Industry Practice

As the leading professional services firm in Singapore, PricewaterhouseCoopers Singapore's dedicated Financial Services Industry Practice (http://www.pwc.com/sg/fs) has a team of multidisciplinary professionals with specialist knowledge, in-depth local market knowledge and proven expertise that enables us to address our clients' specific needs, coupled with insights into market place developments and global opportunities.

Chris Matten
Partner
(65) 6236 3878
chris.matten@sg.pwc.com

Chay Yiowmin
Senior Manager
(65) 6236 7061
yiowmin.chay@sg.pwc.com



Yeow Chee Keong
Financial Services Industry Practice

Mark Jansen
Financial Services Industry Practice

Evolution of product and finance control

A Singapore story

Reflecting Singapore's global strength as a key financial services hub, there has been significant continued offshoring of product and finance control functions to the city state by many major global financial services organisations. At the core of this is Singapore's attractiveness from a business and cost standpoint. However, financial services organisations need to reflect on what this means in terms of "control" itself and the implications on the organisation as a whole going forward. ■

The Singapore story

Singapore-based financial services organisations have experienced dramatic growth in both profitability and size over the last few years. This is spurred by Singapore's strong economic growth and its role as a major global financial services centre. As such, we are witnessing rapid rate of many foreign banks seeking to expand their global product, financial and IT control functions in Singapore.

Core to this growth are a number of key factors which Singapore is now reputed for. These include continually being ranked as one of the most competitive countries in the world, the low effective tax rates and it being an attractive location for foreign talent. Coupled with a world class infrastructure and ease of access, these factors make Singapore a viable long-term hub for many financial services institutions.

Albeit being a lower cost location, Singapore is not a low-cost location. Within this paradox lies the true reason for Singapore's success. It is Singapore's ability to bring value through providing a strong business environment and being a location in which talent is attracted. This has enabled Singapore to become a value-add hub location, as seen by the significant number of financial services organisations seeking to consolidate their middle office activities such as product, finance and IT control in Singapore.

Control opportunities

With the increased consolidation of control functions in a single location, there is an opportunity for such organisations to consider process redesign to achieve overall efficiency and effectiveness. For some, this process may seem complete. However, continued evidence, based on our experience working with many such organisations, suggests that there are areas for improvement. The particular areas requiring focus are:

- consistency of control frameworks covering the full spectrum of Front, Middle and Back Office functions;
- clarity over the interdependence of IT, spreadsheets and the business process; and
- understanding the impact on financial reporting, Sarbanes-Oxley (SOX) and other regulatory reporting requirements.

Consistent control framework

A key phenomenon of the last decade is the centralisation of core processing activities in locations that are not geographically aligned with up and down stream activities. While this brings efficiency and cost effectiveness through economies of scale and labour arbitrage, it also brings increased risk. For many organisations, there is an increased risk of reliance on an "offshored" location for what may actually be an onshore responsibility. Conversely and closer to home, if responsibility is at the hubbed location, then it needs to be clearly defined.

A common example is reconciliations, in particular, the difference between the roles of identifying reconciling items and ultimate ownership of the reconciling item. Often, a low-cost centre identifies the item and the middle office is responsible for follow up. While this is a simple concept, this end-to-end view is critical in particular for financial services organisations which often have complex process flows.

Ultimately, attention is required in making sure controls are defined consistently across all locations and functions while

taking into consideration the global context of operations. Furthermore, ownership needs to be clearly defined for each activity and process.

Interdependence on IT

Core to all financial services organisations is the underlying IT system. With the growth in financial services organisations, there has been a corresponding increase in the number of applications and spreadsheets being used across all lines of business. This has been the result of legacy systems gained via mergers or acquisitions and the increase in new products which have been utilising new systems or spreadsheets rather than integrating into legacy platforms. This has created a labyrinth of complexity which, if left alone, becomes not only cumbersome but also increasingly difficult to unwind.

From a control perspective, the key area of focus should be making sure that there is consistency in data quality across all systems. Too often, financial services organisations struggle in reconciling the same information from multiple systems that perform different reporting tasks. As companies seek to rationalise systems, a single source for data should be a key area of focus. Too many financial services organisations have multiple product ledgers and accounting systems which feed into other middle office applications. It becomes a difficult task to keep track of information on a timely basis.

Typically, many financial service organisations also rely on a large amount of spreadsheets. While these may seem integral to the running of the business, they are also fraught with risks and can result in major errors going unnoticed. Spreadsheets, by their nature, are often complex and lack consistency in design. There should be a clear process in place relating to the creation and changes made to spreadsheets. As organisations seek to consolidate control functions in a single location, this presents a unique opportunity to rationalise the use of such control tools.

Financial services organisations should seek to minimise the use of spreadsheets through the use of more formal change control processes and routine integrity checks. While such steps may seem Draconian, simple errors in spreadsheets have, in numerous instances in the past, resulted in material or embarrassing restatements for many companies.

External reporting – Getting it right from the centre

The increased centralisation of control functions makes a case for rethinking the approach to reporting, be it SOX, Basel II, management or statutory. A challenge for many organisations seeking to centralise their control functions is how to keep track of requirements across multiple jurisdictions. The key areas of focus should be on streamlining the reporting process and seeking a shift in approach from just adherence to local laws and requirements, but also taking into consideration a broader principle-based approach.

A principle-based approach focus on doing things the right way from an organisational cultural perspective, while being conscious of local needs and requirements. This requires organisations to recognise that there has been a change in the reporting dynamics and in particular, the proximity to local requirements. As such, cultural shifts need to be considered so as to make sure that control is not a job done remotely, but rather, one that is focused on key principles that guide the organisation in its day-to-day business.

Often left unconsidered are how this changes the financial reporting process and the implications on the local reporting process. For many organisations based in Asia, there is a head office or regional-centric view of reporting. This forsakes the focus that each regulator has at a local level. Some organisations do get it right at a local level but conversely do not successfully integrate efforts from global work.

As organisations continue to push forth, consideration is required in ensuring that a global view is taken on reporting. For example, PricewaterhouseCoopers utilises global teams for all clients focusing on single audit touch points. For a global client with centralised operations in Singapore, there will be a central audit team working with the client in Singapore focusing on the control activities that are relevant from a global perspective, bringing the relevant specialists to bear. Ultimately, this is a more efficient audit approach that results in less disruption and an increased focus on value through the use of experts.

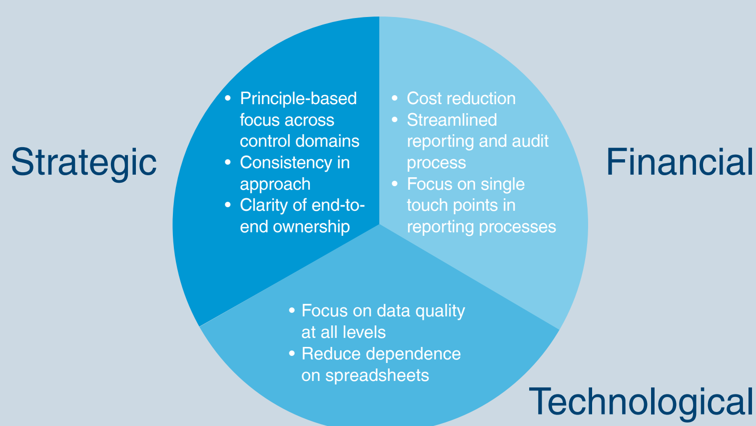
Moving forward

As organisations continue to expand into Singapore, it is important that focus is not just on consolidation and achieving the benefits through economies of scale. Time should also be spent focusing on the control implications and potential areas for enhancement and streamlining.

As Singapore strives to add value as the financial hub, financial services organisations seeking to reap the rewards of centralised control should focus on:

- implementing consistent global control frameworks;
- streamlining technology requirements and in particular data quality; and
- leveraging centralised control processes to ensure efficient and effective regulatory and management reporting. ■

Diagram 1: Strategic, Financial and Technological focus points for control hubs

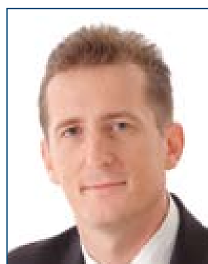


About PricewaterhouseCoopers Financial Services Industry Practice

As the leading professional services firm in Singapore, PricewaterhouseCoopers Singapore's dedicated Financial Services Industry Practice (http://www.pwc.com/sg/fs) has a team of multidisciplinary professionals with specialist knowledge, in-depth local market knowledge and proven expertise that enables us to address our clients' specific needs, coupled with insights into market place developments and global opportunities.

Yeow Chee Keong
Partner
(65) 6236 7298
chee.keong.yeow@sg.pwc.com

Mark Jansen
Senior Manager
(65) 6236 3213
mark.jansen@sg.pwc.com



Greg Unsworth
Assurance

Paul J Zanker
Advisory
Performance Improvement

Thorsten Reelitz
Tax

Beyond operational cost savings

Benefitting from strategic simplification and sourcing in Asia

There is a common but flawed perception that the immediate benefit of strategic simplification and sourcing initiatives is, first and foremost, cost savings. In reality, revenue growth, increased innovation and research and development are other crucial objectives. Leveraging simplification and sourcing enhances the discovery and mobilisation of distinctive capabilities that allow companies to unleash their full potential. Today, successful companies adopt streamlined operating models that leverage core competencies and resources to develop distinctive and innovative value propositions. Companies focus on a manageable range of activities that create unique value for customers while sourcing support functions externally. ■

Value-added support from service providers

Technology service providers have recognised the increasing strategic importance of simplification and sourcing and are evolving their service offerings to address these emerging organisational needs. To support clients in their value chain and operations restructuring efforts, many providers are expanding their capabilities and platforms to offer more value-added business consulting and transformation solutions beyond the traditional functional and IT services. In certain specialised areas, service providers have developed economies of scale, scope and knowledge intensity that hardly any organisation spreading its activities over an entire value chain could achieve effectively.

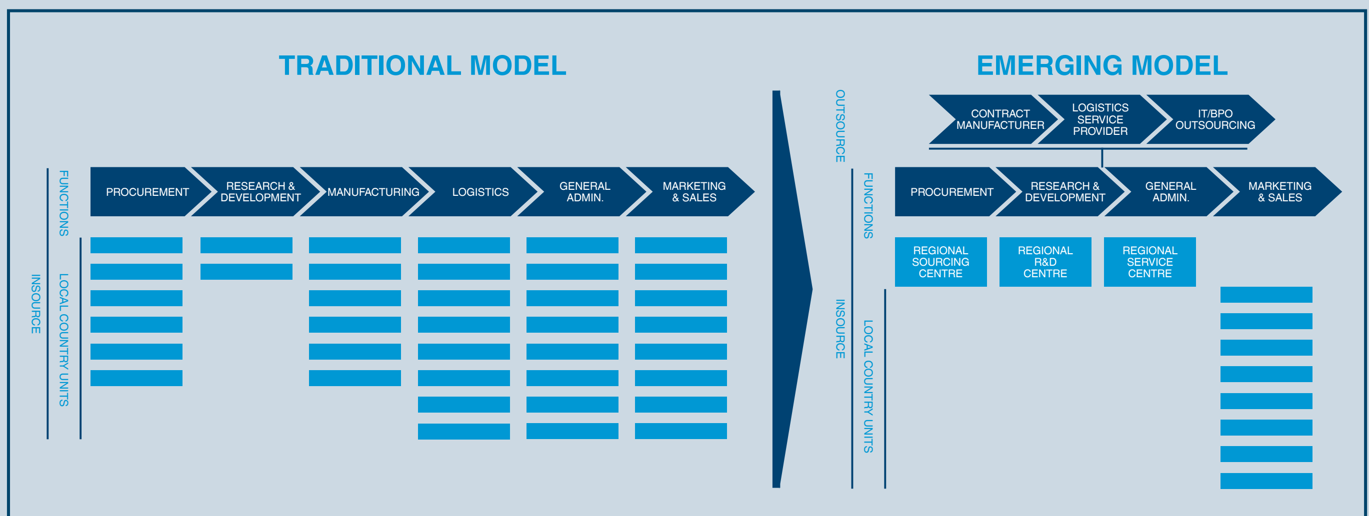
As service provider offerings gain sophistication, companies are increasingly utilising competencies of such specialised providers while understanding more effectively how to leverage their own capabilities. The success of such initiatives has been mixed as many buyers jump on the outsourcing bandwagon without a clear understanding of their own sources of competitive advantage; without performing the appropriate due diligence in terms of best providers, control systems and locations, and without the proper structures for tax and legal purposes.

Senior management charged with operations efficiency should avoid a piecemeal approach focused on short-term cost savings. The remaining article highlights the importance of a strategically aligned and holistic approach to simplification and sourcing and presents a framework that organisations may adopt.

The emerging model

Multinational companies are restructuring their organisations to integrate and refocus a collection of stand-alone businesses on their core sources of competitive

Diagram 1: Transforming a localised business model into a regional one



advantage while centralising and outsourcing other activities which local operating units have neither a critical strategic need nor specific specialist capabilities. Today, this emerging trend is most apparent in Asia. After years of disparate organic expansion and acquisitions, senior management is seeking ways to accelerate growth and reduce operational inefficiencies imposed by unrealised synergies and the proliferation of processes, technologies, organisational structures and facilities in each new market.

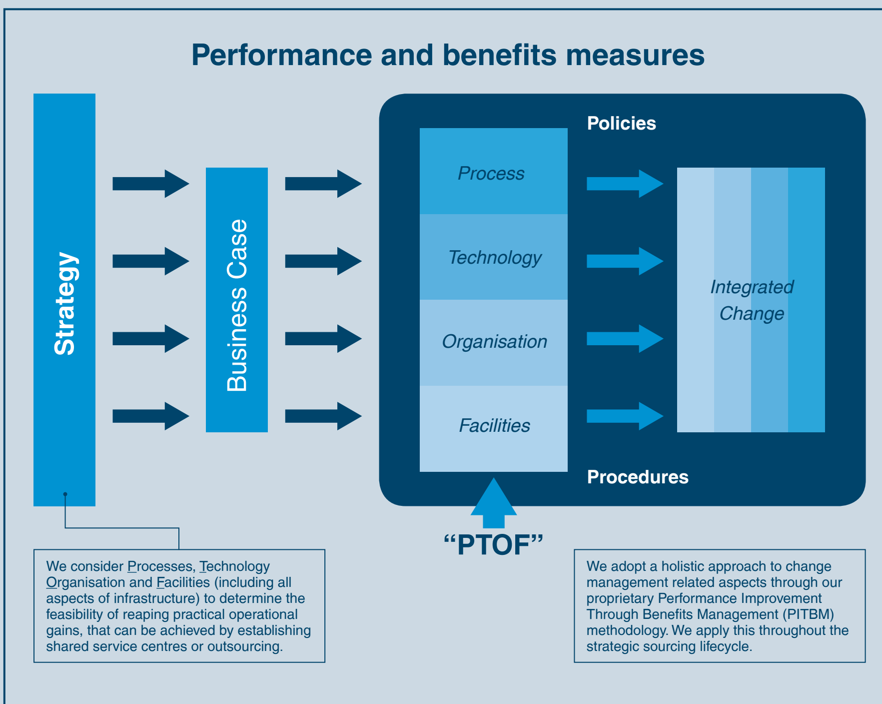
Activities such as procurement, information technology, finance, accounting, human resources and other support activities tend to be handled separately in each country. As a result, redundancies, diseconomies of scale, incompatible systems and diluted management controls have become widespread across the region. However, as globalisation, rapid technology innovation and service provider sophistication evolve, senior management is beginning to look for ways to reduce complexity and gain operational efficiencies.

Companies need to rigorously assess each of the functions across their value chain to determine which ones have sufficient scale and differentiated skills. For most multinational companies looking to excel in Asia's growth markets, this means focusing local operations on building relationships with end customers and distribution channels and developing unique local market insights to adapt global solutions to local needs. Diagram 1 shows how companies can transform their business models.

Non-strategic support functions previously carried out by each individual country and business unit are either pooled in regional, in-house shared facilities or a relationship is established with one of the many dedicated third party service providers in the marketplace. Increasingly, these outsourcing relationships, particularly with technology providers, are moving from transactional relationships to more strategic ones. Common technology applications, consistent processes and standardised definitions of similar roles and responsibilities all reduce complexity and promote effective coordination and decision-making. Third party service providers are accelerating this development by upgrading their own capabilities and platforms and offering more value-added business

Diagram 2: Linking corporate strategy with simplification and sourcing

Our approach is holistic and focused on benefits realisation



solutions beyond infrastructure and functional activities.

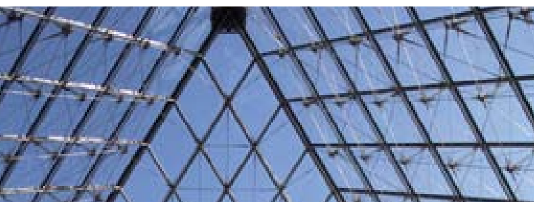
Senior management usually lead and manage such restructuring initiatives from lean corporate centres that focus on critical activities and operations. Within Asia, such regional headquarters are often positioned in locations such as Singapore, Hong Kong and Shanghai which provide effective hub infrastructure and offer tax advantages.

Strategic alignment

Any new regional business model that is not synchronised with the overall corporate structure and strategy is unlikely to be successful. Senior management needs to spend sufficient time to review their overall corporate strategy as well as understand their company's sources of competitive advantage and levels of complexity necessary to sustain and enhance such core capabilities. Paradoxically, oversimplification may curtail growth and innovation.

One approach is to disaggregate the value chain across all elements, locations and processes. The disaggregated "as is" business model should then be benchmarked against a minimalist structure with maximum centralisation and standardisation. Each added level of complexity across Processes, Technology, Operations and Facilities (PTOF) should be checked for strategic and operational relevance. If an additional unit of complexity does not yield a tangible advantage over the simpler alternative, management should consider refining the particular unit (Diagram 2). Simplified alternatives may entail unbundling processes and transferring them to captive regional shared service centres or manufacturing facilities or outsourcing activities to specialised IT or service providers.

Deciding whether to keep an activity in-house or to outsource depends on whether the organisation can achieve a sustainable advantage by performing the activity internally cheaper, better or faster on a continual basis. The activity should not be outsourced if cost, quality or speed is critical to the customer



and if the organisation excels at performing the activity. Companies too often assume that because an activity seems integral to their business, the activity has to be kept in-house.

Today, it is recognised that in a dynamic and open marketplace, companies are constantly in competition with all potential suppliers of each activity in their value chain. Hence, companies should assess their identified core competencies – strategically and activity-wise against other potential suppliers on an ongoing basis and decide what is best for the company. Service providers are continually developing and enhancing their capabilities and delivering sophisticated business consulting and transformation services, design and engineering and other value-added services. Many activities currently considered as sources of strategic competitive advantage may tomorrow be performed more efficiently by a specialised service provider. Outsourcing frees up critical resources in the organisation to perform real value creating activities.

Leverage technology service providers and platforms

Information Technology and business service providers have recognised senior management's dilemma in trying to stem a proliferation of complexity in the wake of globalisation and continued technological advances. This is partially a result of the mass build-up of disparate technology platforms and systems either in-house or through mergers and acquisitions. Service providers are offering a broader range of more sophisticated capabilities to help organisations reduce complexity and achieve standardisation. IT companies in particular have broadened their horizons beyond infrastructure and technology and are offering a full suite of outsourcing services, including:

- Software application development and maintenance
- Bespoke R&D and design services
- Hardware/software maintenance and network administration
- Business process outsourcing
- Systems integration
- Technology consulting
- Business transformation outsourcing (BTO)

BTO, in particular, is attracting more attention where an organisation outsources a business process to a dedicated service provider with the specific intent of having the service provider apply specialist

knowledge to enhance the process and collaborate in risk and reward sharing partnership.

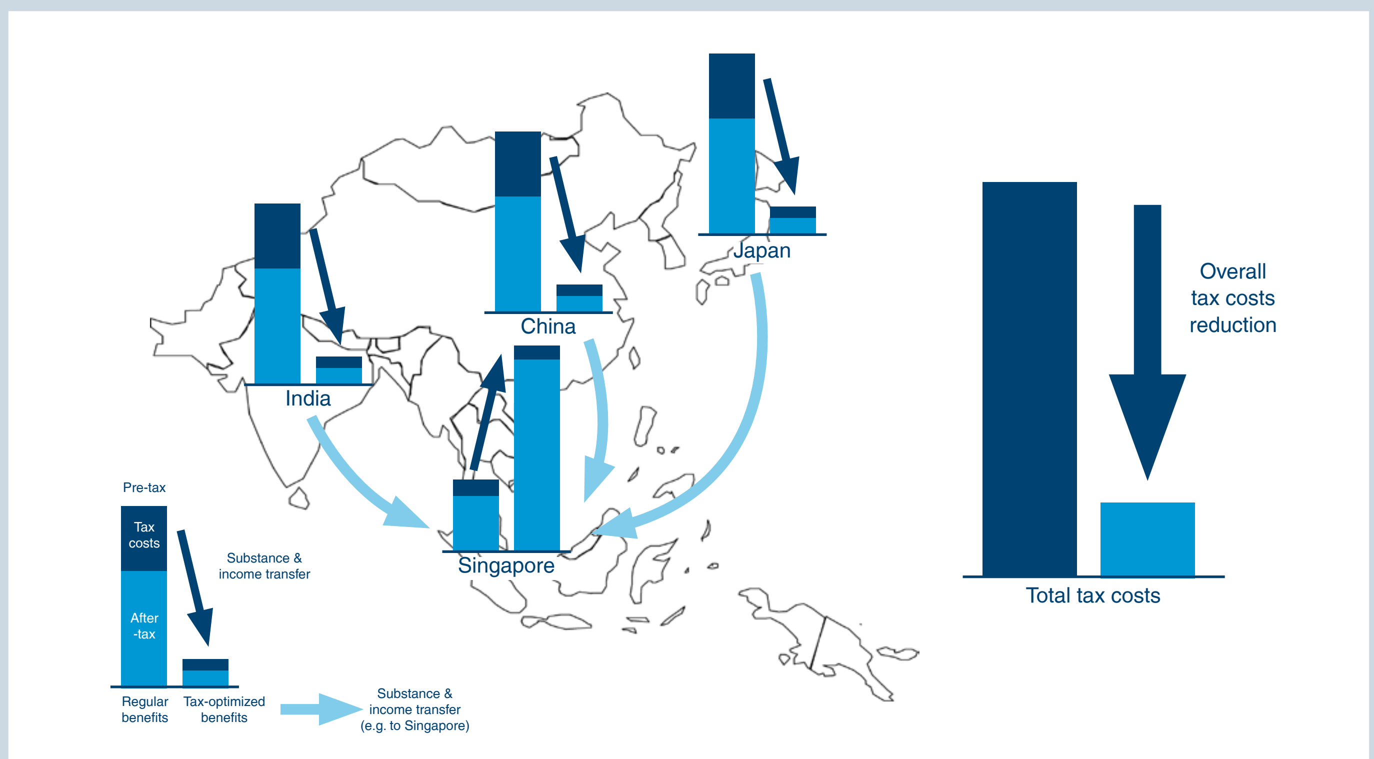
Outsourcing helps to leverage internal technical capabilities and tap the rapid response and innovative capabilities of specialised technology providers. As providers and platforms become ever more sophisticated, outsourcing can provide the buyer with greater flexibility and quality, especially in the purchase of rapidly developing new technologies.

Technological advances have also lowered transaction costs, allowing inputs to be transported, stored and coordinated effectively from external sources. Providers can both have more depth in resources and sophisticated technical knowledge and support specialised facilities for higher quality than the buying company could achieve alone. Outsourcing can also help a company spread the risk of technology developments across a number of suppliers.

Minimise cash tax costs

Shareholders eventually attain value created from complexity reduction and strategic sourcing exercises in Asia through improved after-tax cash flows. Senior executives should therefore work towards minimising effective taxation simultaneously with relevant operational efficiency and revenue growth gains. Aligning the emerging regional business model with a tax-advantaged

Diagram 3: Leveraging business restructuring for tax cost minimisation

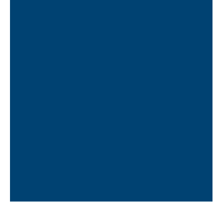


structure by centralising strategic functions, knowledge and entrepreneurial risks along with all resulting taxable income in a tax-favoured jurisdiction should be an imperative rather than a consideration.

As the source of competitive advantage in Asia shifts from the ownership of assets and resources across the region to the efficient management of a network of in-house and outsourced capabilities, companies should make sure that they structure transition as tax efficiently as possible. Too many companies restructure their Asian operations without proper attention to cash tax costs. As a result, additional profits generated from a regional restructuring exercise are eventually exposed to high effective tax rates of between 30 and 50 percent, either in regional locations like Japan, China or India or at corporate headquarters in the United States or Europe.

Locations such as Singapore and Hong Kong, for instance, can provide excellent advantages for locating a strategic management centre. For example, Singapore's Economic Development Board grants multinational companies generous tax incentives for transferring strategic knowledge-based activities to the city state. New regional corporate centres, whose strategic resources drive a multinational's complexity reduction and strategic sourcing initiatives for Asia out of Singapore, can negotiate preferential tax rates for all additional income of as low as five or ten percent. This represents significant tax savings for the companies, as shown in Diagram 3. The new regional business model with a strategic corporate centre and specialised lean internal operating units or external outsourcing relationships is ideal for efficient tax planning. Instead of arbitrary on-paper tax planning that is increasingly scrutinised and challenged by tax authorities, tax-advantaged regional business transformations generally have the necessary substance. The tax perspective should, therefore, be considered simultaneously from the start together with all strategic and operational aspects.

The early consideration of taxation and other legal matters is not only critical from a tax planning perspective, but also to avoid any exposures to eventual tax audits, assessments, and related penalties that could severely reduce the efficiency and revenue growth gains from the regional business restructuring.



Managing and leveraging complexity

Complexity brought about by globalisation impacts companies positively as well as negatively. Managing complexity means looking for harmonisation and standardisation to remove redundancy and reap efficiency. Leveraging complexity can also mean stimulating innovation and growth. To maximise shareholder value in Asia today, organisations need to excel at both managing and leveraging complexity.

Managing complexity successfully through effective sourcing and structuring initiatives can act as the much needed catalyst for renewal and change within the organisation and stimulate fresh thinking. A holistic approach that is strategically aligned and tax-efficient is crucial to position the company for sustainable growth and operational excellence in the world's fastest growing markets. ■

About PricewaterhouseCoopers Performance Improvement

PricewaterhouseCoopers Performance Improvement helps clients attain increased performance by improving the efficiency and effectiveness of key business processes. Our in-depth industry expertise and understanding ensures tailored solutions for our clients.

We leverage our broad range of business advisory, tax and industry expertise to deliver innovative solutions for simplification and strategic sourcing initiatives in Asia and across the world.

Greg Unsworth
Partner
(65) 6236 3738
greg.unsworth@sg.pwc.com

Paul J Zanker
Associate Director
(65) 6236 3353
paul.j.zanker@sg.pwc.com

Thorsten Reelitz
Director
(65) 6236 3813
thorsten.reelitz@sg.pwc.com

Greg Unsworth
Assurance

V Maheshwar
Advisory
Transactions

Gearing up for convergence

Convergence over the years has evolved from an idea to a reality in waves. In early days, various communications players offered distinct communication services such as fixed telephony, cable TV, Internet services and mobile services to consumers. The first wave of convergence led to the emergence of the converged telecommunications player. The physical network elements came together, backhaul networks were optimised and the multiple last mile connections to consumers premises were reduced to a single link to provide fixed telephony, cable TV and Internet services, all from one single service provider. Advancement of technology and consolidation of businesses led to the creation of a "quad service" provider offering fixed telephony, Internet, cable TV over a single last mile wired link and wireless mobile services to the consumer. ■

Single media delivery chain

In the current digital age, convergence has evolved further. Now we see convergence as the "coming together" of digital media and communications technology, such that previously distinct media distribution channels (audio, video, print, etc.) converge to a single media delivery chain where access to content is largely network and device independent. Convergence is driven by the evolution of the "digital consumer".

The "digital consumer" is driven by access to personalised, anytime/anywhere content and applications. Diagram 1 shows examples of consumer-centric convergence such as:

- "Infotainment" and device convergence: Apple Computer
- PC – TV convergence (applications): Microsoft
- PC – TV convergence (content): MediaCorp, Sony, Time Warner, Bertelsmann
- PC – TV convergence (distribution): AT&T, Verizon, DoCoMo, Vodafone
- Device convergence (e.g., cell phone and PC): Motorola, Sony, Samsung, Nokia.

Serving the digital consumer

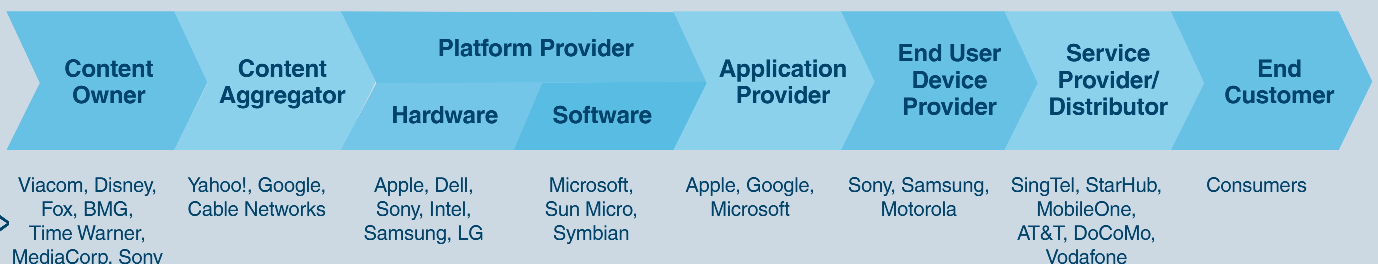
Serving the "digital consumer" is rapidly blurring the traditional differentiators between telecom carriers, technology companies and the content owners. This, in turn, forces companies to rethink their strategy and aim to be a converged player in the industry and make best of the synergies the new converged world has to offer. Companies are hence focusing on:

- Changing business models
- Mergers & acquisitions with businesses outside core competencies
- Contracts/Alliances with multiple vendors
- New regulatory/standards considerations which include network neutrality and considering competing technological standards
- Intellectual property and transfer of content in digital environments
- Aggressive use of customer metrics for innovative marketing/advertising programmes to win new customers
- Revenue streams from multiple sources/end-users

We believe that, in order to create shareholder value, companies in the content, technology and distribution sectors must adopt an open business model to eliminate internal walls between business units and external walls between the company, its partners and other strategic business allies.

An open business model means an integration of ideas directly from consumers, along with the ability to leverage and monetise

Diagram 1: Consumer-centric Value Chain & Key Players



content that customers may create. It means the integrity of consumer data is preserved while also being opened to more uses. In an open business model, the formation of partnerships and alliances is a requirement for growth. This means finding a functional method for all parties to give more than they currently do, recognising that there will be a necessary zone of discomfort. One of the central constraints in partnerships is the wall of proprietary intellectual property – in other words, ownership of “trade secrets.”

Challenges for the industry

Based on our experience, the key issues arising due to the changing business models are mainly from four categories:

- Strategic issues such as partnerships and alliances
- Operational issues such as integration and revenue leakage
- Consumer privacy and content security issues
- Cultural transformation

The following table maps out the actions to consider against each of the challenges.

Challenges faced	**Actions to consider**
Strategic issues such as partnerships and alliances	• Define Service Level Agreements • Implement robust performance-monitoring & reporting/ dashboard mechanisms • Make sure there is an exit strategy
Operational issues such as integration and revenue leakage	• Identify and quantify revenue leakage points in revenue-sharing systems • Conduct an assessment that addresses billing, licensing, contracts, royalties, operations, service/order provisioning, etc • Operationalise a revenue assurance programme • Analyse all billing line items for accuracy, including relevant charges and agreed-upon rates • Establish a means of identifying if partners are being over or under-compensated for distribution or content • Enforce intellectual property rights on licensees – licensors need to ensure they are reporting usage accurately and that all licensing agreements are properly maintained and up to date

Challenges faced	Actions to consider
Consumer privacy and content security issues	• Restrict access to customer information • Be wary of underestimating the operational challenges of protecting digital content • Technology alone cannot protect content – monitor employee access to content-management systems as well as any unusual movement of content, and institute appropriate training programmes • Companies should focus more on strategies that encourage desired consumer behavior and less on prevention and/or punishment • Employ quality as a powerful offensive weapon against piracy. For example, high-definition is becoming the standard for television sets, and consumers want programming to match. High-definition files are extremely large and are more difficult to distribute and replicate cheaply, thus lessening the incentive for piracy
Cultural transformation	• Establish a clearly defined organisational blueprint that can be executed quickly and efficiently and that addresses the cultural traits of the participating workforces • Set objectives for the new business models • The convergence era is a time of rapid change that demands a new business model. Longstanding management decision-making practices that are rooted in closed systems and closed enterprises are the Achilles heel of the convergence enterprise

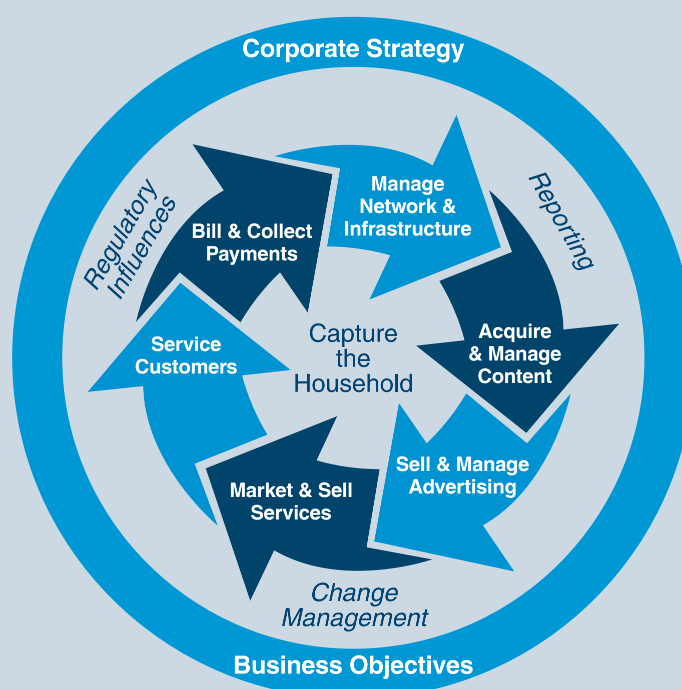
Many of these issues are covered by the PwC Convergence Readiness Diagnostic – a tool which offers companies a strategy-driven, holistic and all encompassing means of managing content services rollouts.

The Convergence Readiness Diagnostic tool helps to:

- Assess a company's readiness as new Convergent related services are rolled out
- Ensure that revenue risks are identified throughout the end-to-end content lifecycle
- Facilitate the development of processes and controls while ensuring the impact on other processes and organisations is considered (cross functional)
- Deliver overall monitoring capabilities to ensure that process performance is measured and accurately reported
- Establish accountability for process performance and the implementation of fixes within the end-to-end content lifecycle
- Compare content services practices with our database of more than 100 industry averages and best practices
- Identify and prioritise opportunity areas of greatest profit enhancement.

Using the Convergence Readiness Diagnostic tool, we have helped companies assess their Convergence Readiness

Diagram 1: Convergence Content Lifecycle



based on the Convergence Content Lifecycle (refer to diagram 2) which includes: manage network and infrastructure, acquire and manage content, sell and manage advertising, market and sell services, service customers, and bill and collect payments.

Preparing for tomorrow

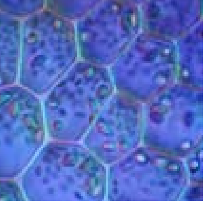
Regardless of the positioning of individual companies in the convergence lifecycle and the specific contribution to the related value chain, the timing is right to consider the organisation's business model, operational readiness and organisational aspects. The opportunities in the converged world cannot be ignored and the companies that best anticipate, plan for and execute their strategies will ensure their growth and success in these rapidly emerging markets. ■

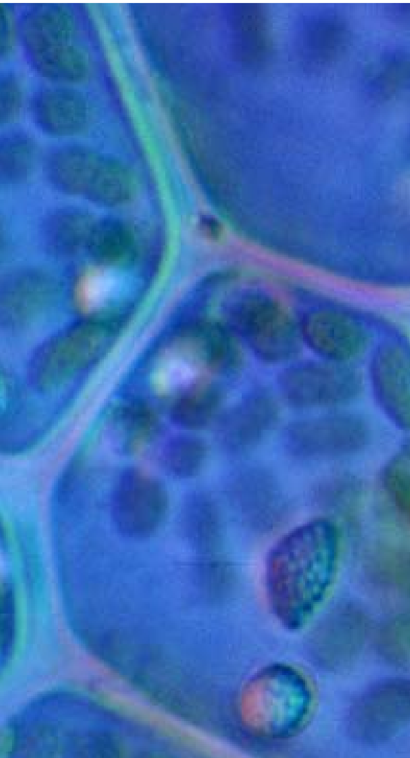
About PricewaterhouseCoopers Technology, InfoComm, Entertainment & Media

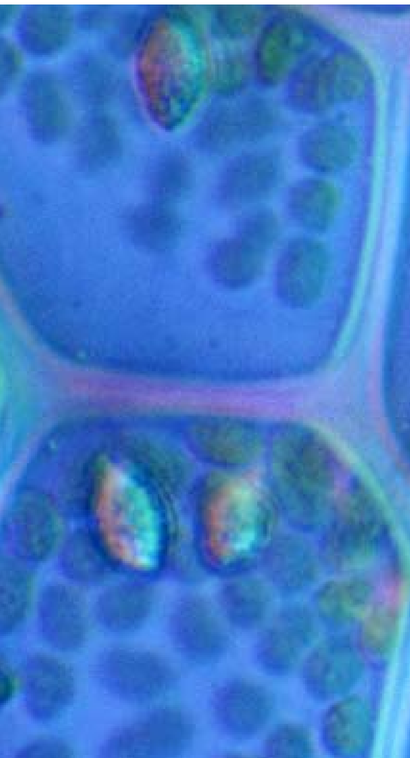
PricewaterhouseCoopers Technology, InfoComm, Entertainment & Media (TICE) Practice consists of multi-disciplinary industry experts who work closely with clients to solve complex business problems and enhance their ability to build value, manage risk and improve performance in an Internet-enabled world. The team draws on organisational strengths, both from Singapore and overseas, to assist clients in resolving issues in the areas of taxation, corporate finance, management and human resources consulting and outsourcing.

Greg Unsworth
Partner
(65) 6236 3738
greg.unsworth@sg.pwc.com

V Maheshwar
Senior Manager
(65) 6236 4459
maheshwar.venkataraman@sg.pwc.com







Greg Unsworth
Assurance

Top technology trends for 2007

The technology sector is abuzz with excitement: there is tremendous growth and development of new technologies fuelled by convergence, particularly for the consumer market; re-alignment of operations and pursuit of greater efficiencies and productivity by enterprises. New business models are being developed and those technology companies that are well placed are capitalising on the resulting market opportunities. Unlike the "dot com" era, sustainable and profitable business models are the order of the day.

Against this positive backdrop, let's explore the trends slated in 2007 and beyond.■

8 emerging trends in 2007

1. The momentum and evolvement of convergence through digitisation driven by proliferation of broadband, Internet protocol, more accessible content and more user friendly technologies

According to the latest PwC Global Entertainment and Media Outlook, the number of broadband households in Asia Pacific will increase to 217.3 million by 2010, a 21.2% compound annual increase. Such developments will impact the way content is distributed and the technology sector will continue to evolve, developing new remote devices and software to facilitate the growth in what we have termed “lifestyle media”.

Today’s media consumer has evolved significantly over the last ten years. Rather than passively viewing content produced for a singular audience, consumers can now participate in a highly interactive, socially-networked community focused on specific content. They feel a sense of ownership of the content and are hence not satisfied with mass or segmented media. Instead, they are increasingly turning to lifestyle media for a personalised and interactive experience with like-minded individuals.

These are relatively early days of the evolvement of lifestyle media and we expect that the organisational and technical infrastructure will develop further in 2007 to allow content owners, advertisers and consumers to discover, select, configure, distribute and exchange both professionally and user-generated content.

2. Continued growth in convergent-led mergers and acquisitions cutting across technology companies, telecommunications companies and content providers

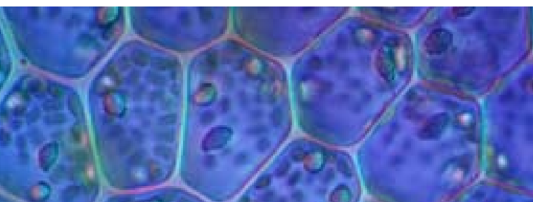
Based on a PwC and Economic Intelligence Unit (EIU) survey of a selection of global CEOs of top technology companies, 65% of respondents expect significant acquisitions to take place over the next three years. Interestingly though, 41% believe that there will also be significant failures arising from these developments in the same period. This indicates a more measured and thoughtful approach to risk by technology companies, compared to the “dot com” era. There is an understanding that deals alone, without a solid understanding of the fundamentals and a sound business model, are not sufficient for success. Google’s acquisition of YouTube and Second Life, News Corp’s acquisition of MySpace and the earlier purchase of Skype by eBay are examples of the deal-making that is likely to continue.

3. The rise of search as both a technology and media market place

This will continue to play out with Google and Yahoo continuing to battle and Microsoft looking to disrupt through MSN. Search will become more prolific in usage than e-mail in 2007 (if it hasn’t already) and we will continue to see new and evolving business models that generate significant revenues and profits over the Internet. The more successful ones will follow a fairly simple performance pay for advertising formula.

4. Innovation through research and development

This will increasingly be driven by partnering arrangements and alliances. Open source software, the need for critical skills and the cost of development will make this an imperative for technology companies to survive and keep pace with the need for new technologies that fit with changing consumer demands.



5. Software as a service

Web services, open source and service oriented architecture are combining to change the dynamics of software models and pricing from upfront payments to subscription and pay-for-usage models. This will make it difficult for new entrants to fund early-stage development and innovation, as cashflow will be less "front ended". PwC is currently undertaking a global study of this trend and expects to see the impact as early as 2007 on software companies' revenue recognition, financing models, approach to research and development, flexibility for consumers and sales force compensation.

6. IT service providers will continue to grow through high-end consulting and outsourcing

Outsourcing deals will become more frequent, although the average deal size will reduce. Multi-sourcing will be used increasingly to manage risk and capitalise on the core competencies and strengths of different service providers. Offshoring will continue to increase the Gross Domestic Product and raise the standard of living in emerging markets. While India will remain popular as an offshoring destination for software development and business process outsourcing, enterprises will continue to seek multi-destination sourcing solutions to capitalise on different talent pools and manage exposures to different regulatory and environmental risks.

7. Mobility will continue to grow and develop although prolific use of wireless broadband will not be realised in 2007

8. The war for talent in the technology sector will continue to heat up

As key skilled people are becoming increasingly valuable, mobile and difficult to retain, technology companies need to evolve with changing career models for their talent. Share options are out of favour and offshoring models increase the career alternatives for employees. Based on a recent study by PwC and EIU, very few global CEOs of technology companies believe their organisations are currently doing a good job of retaining and developing their key talent. About 83% of respondents indicated that engineering knowledge with creative and collaborative thinking is in short supply. This amplifies the importance of managing human resources for technology companies.

Impact on our daily lives

While it is interesting to speculate on the pace of change and these emerging trends, the question many of us have is how this will impact us directly. As users of technology, the main impact on our daily lives can be considered both as individuals and in the context of enterprise developments.

For the corporate sector, we will see improved productivity through technology tools and enhanced communications. People are travelling more yet staying "connected", thus facilitating a greater number of relationships with business partners, customers and suppliers.

For the individual consumer, we see more choices to access content and communications which means providing more lifestyle choices and the ability to drive technology development to suit specific needs or demands. Technology is becoming more pervasive and influencing both language and culture, such as short message service and blackberry speak, growth in search, virtual worlds such as those facilitated by "Second Life" and user-developed content where the prime example is YouTube. The challenge for individuals is that some technologies are still not as "user friendly" as they should ideally be.

Security and privacy will continue to be concerns for some although this will not really deter mainstream take-up of new technologies or electronic modes of communication.

Emergence of technology infrastructure in Singapore

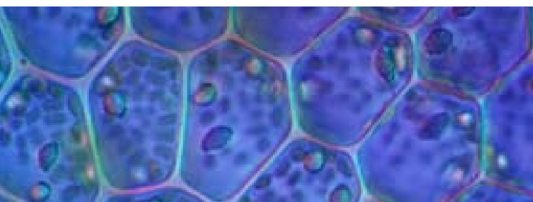
From the Singapore perspective, the government has announced a number of major initiatives. Recent announcements in connection with mesh wifi, wireless broadband and the next generation network provide a positive message to Singapore's broader population and also encourage further investment by technology companies and development of new services. Singapore is a small island state with advanced modern infrastructure, a population with a global outlook, considerable prosperity and an aptitude to adopt new technologies that enhance productivity and lifestyle choices. This relatively small, yet dynamic, environment makes it an ideal "test bed" for IT companies to pilot or roll out new technologies that may have a broader global application. In recognition of this and the needs of Singapore's local communities, the government has recognised its unique position.

All of this is good news for Singaporeans. Besides stimulating economic prospects, it will provide citizens with new services and a better ability to connect and communicate through enhanced access and use of wireless networks. The initiatives to provide free wireless access for up to two years with surfing speeds up to 512 Kbps will make these services available to a wide cross section of the community. The 5,000 wireless hotspots by the end of the two-year period will accelerate adoption of new technologies and facilitate wider choices for consumers to access, mix and consume content in all its forms. New service offerings including Internet Protocol TV, online video and Voice over Internet Protocol will also see significant growth facilitated by the infrastructure changes.

Developments in the online world

Currently there are various interesting things happening online, including the new virtual world where people are actually making money and companies are looking to advertise.

Many of the online developments are being characterised as Web 2.0. This is really a concept and reflects



the step change in use of the Internet as a platform for expanded interactive service offerings. There is no strict definition or criteria for what Web 2.0 actually is.

The winners in this era of online development spot the following key features:

- Accessing the entire web, or a significant portion, rather than just niche segments, is a key driver of success for companies such as Google, eBay, Yahoo and Amazon. This effectively links the growth in the business to overall growth in Internet usage, all other things being equal. A widely dispersed entrenched offering will directly follow the general growth pattern of expanded Internet usage.

- The key success stories under Web 2.0 are supported by extensive databases combined with exceptional functionality and user experience. The back-end data is essential to support this enhanced consumer experience and interactive services.

- User involvement in data production and functionality is an essential feature and enhances the overall service offerings, along with the growing database underpinning this.

- New content and functionality are continually added to reflect offerings as ongoing services, rather than the old sporadic "upgrade" type model. This creates a dynamic interface for consumers. This is also driving the development of new pricing and revenue models.

- Content and functionality are being developed to be packaged and accessed through multiple devices. The related services need to be sufficiently flexible, scalable and suitable for multiple distribution channels. This cuts across PCs, server access and, more prolifically in future, handheld mobile devices.

Social networks including YouTube, MySpace, and to a lesser extent, Second Life, are becoming increasingly prolific and considerable value is being ascribed by key players in Web 2.0. This is demonstrated by the prices being paid for very early stage businesses by the likes of Google, eBay and News Corp. The perceived value is a function of the importance of customer profiles and end user data and the ability to use this to market and expand their offerings.

Second Life has captured significant attention of late and is

likely to be just one example of the types of new interactive lifestyle media offerings to be developed and released in these evolving online markets. The concept of role-playing – another different life with little direct consequences in the "real" world – is clearly appealing to many. More interestingly, real money is being made through this by many and we are seeing not only a "second life" but a "second economy" developing in the virtual world. It is unclear how far this will develop in terms of revenue generation, although clearly, the opportunities exist for new and evolving business models.

Implication for Singapore and regionally-based technology companies

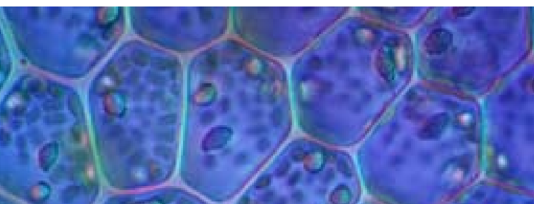
The ability to adapt will be key for Singapore-based technology companies, and more broadly, those operating in the Asia Pacific region. Addressing the issues effectively will help companies achieve competitive advantage. Some strategies to pursue include:

- Adopt a service, rather than software focus, with the ability to scale, adapt and connect through open source with consumer changing demands
- Develop a unique and feature-rich business model based on achieving scale on the web, that is not easily replicated by others
- Collaborate on research and development where possible and go to market with key partners to enhance customer offerings
- Develop technologies addressing increasing trends towards customer-led services, input and data generation
- Develop flexible models to support multiple distribution models and devices.

The following should be encouraged and enhanced to capitalise on and maximise the economic potential generated through new technologies and online capabilities:

- Continue to strengthen Singapore's key role in supporting global technology leaders and encourage their expansion in the region. A conducive business environment, infrastructure and IP protection will continue to be key for this.
- It is essential that there is no complacency and there is a need to be proactive in research and development, infrastructure development and talent management to remain at the cutting edge of new technology development and to encourage strong levels of investment.
- Further work needs to be done to develop abilities to innovate and develop content related services in Asia. Governments will play their role, as does the wider business community and for the longer term, education programmes at schools and universities.
- Mergers and acquisition activities will be important although partnerships and alliances will also become increasingly essential to develop and deploy business models related to new technologies.
- Talent attraction, retention and management in the technology sector have always been challenging and will become increasingly important over the next three years in Asia.

Overall, the opportunities for growth are significant, particularly for technology companies that can anticipate the impact of new emerging trends in the market



place and respond to change effectively. Advancing new technology is important, but more so, the ability to address customer needs and enhance the user experience in the newly developing converged world will be the real determinant of the truly successful technology companies. ■

About PricewaterhouseCoopers Technology, InfoComm, Entertainment & Media

PricewaterhouseCoopers Technology, InfoComm, Entertainment & Media (TICE) Practice consists of multi-disciplinary industry experts who work closely with clients to solve complex business problems and enhance their ability to build value, manage risk and improve performance in an Internet-enabled world. The team draws on organisational strengths, both from Singapore and overseas, to assist clients in resolving issues in the areas of taxation, corporate finance, management and human resources consulting and outsourcing.

Greg Unsworth
Partner
(65) 6236 3738
greg.unsworth@sg.pwc.com

Ong Chao Choon
Advisory
Transactions

Sanjeev V Gupta
Advisory
Transactions

Upstream industry

The challenges ahead

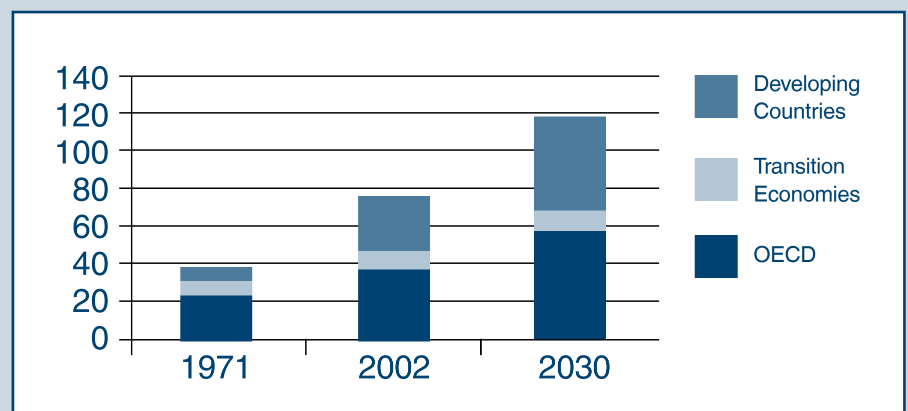
The year 2006 was one that saw much focus on the oil and gas industry, primarily due to continued high oil prices and supply concerns resulting from world events. Oil prices rose to a record high of US$78.40 per barrel in July 2006. The jury is still out on whether the prices have peaked. However, a declining trend was seen when oil prices hit US$49.90 on 18 January 2007, the lowest since May 2005, with various analysts speculating a further erosion over the short term.

The recent retraction of oil price increases has emerged due to a number of factors, including the increase in US crude inventories, crude supply cuts from OPEC not coming through, and the selling of oil futures by hedge funds.

The Asia Pacific represents approximately 25% of the world's oil and gas consumption, hosts 4.2% of the world's oil reserves, 10.25% of global oil productions and 54% of the world's population. Investment and growth sentiments in the region have improved recently following the highest economic growth reported. In line with this economic growth, the Asia Pacific region has also recorded the strongest increase in primary energy consumption in the world, driven mainly by the expanding Chinese and Indian economies. Energy security is now one of the most important elements in promoting development in the Asia Pacific region. Dependence on oil imports is strongly felt in China, India, Japan, New Zealand, the Philippines and Singapore. Demand for oil will remain strong, especially in the transport sector, with an expected increase in private car ownership in the fast developing economies. The strong demand has produced environmental challenges which are becoming an indispensable part of doing business in the region.

This rapid increase in demand, combined with supply uncertainty related to unscheduled outages caused by political disruptions or natural disasters, has been affecting today's price fluctuations and the world economies. It is predicted that the trend of increasing demand will continue and prime contributors to this growth are likely to be the developing economies (Diagram 1). While companies work towards energy efficiencies and invest in new energy technologies and resources, oil and gas is likely to remain critical to the world economy in the foreseeable future.

Diagram 1: Global energy demand growth by region – Comparison between 1971 and 2030



Source: Energy Trends and Technologies for the Coming Decades – British Petroleum, March 2006

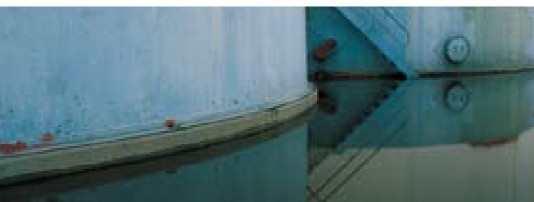
Challenges and realities

There is a continued focus on strategising energy security to counter short-term interruptions due to contingencies,such as accidents or world events, and ensuring sustainable energy supply to fuel economic growth, especially by the regional economies. Upstream market has been characterised and shaped by a number of challenges and realities:

1. Declining reserve replacement

Many of the oil and gas companies have struggled to fully replace their reserves. Diagram 2 shows the declining global reserve replacement trend. Low historical reserve replacement or a short reserve life can signal that a company is struggling to produce organic growth.

Some companies facing weakening reserve replacements have improved their replacement performance by taking the route of acquisitions, despite high valuations.



Another emerging change is that some of the most acquisitive firms are beginning to operate like trading companies – focusing on short-term price speculations rather than on long-term growth opportunities. It is seen that some of these aggressive acquisitive firms have also profited from the differences resulting from high oil prices.

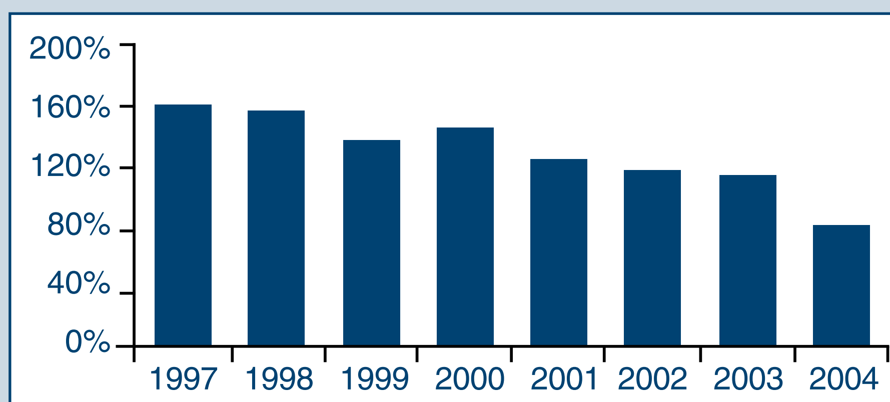
Although acquisitions can lift an acquirer's reserve levels, this is prone to risks and less sustainable than reserve additions from exploration activities. There have been some small majors and independent oil producers, such as Apache, Devon, and Anadarko, which have grown their reserves through the drill bit.

2. Rising reserve replacement costs

There has been an upward trend in reserve replacement costs, measured by reserve replacement cost per barrel of oil equivalent, especially so for the acquisitive firms.

Conversely, the less acquisitive and more exploration oriented firms, such as Apache and Devon, have been able to maintain their replacement costs at low levels. A few super majors, such as Exxon Mobil, have also managed to minimise their replacement costs to the lowest in the industry and have enjoyed higher profitability in the past few years, as measured by return on long-term capital. This is not surprising given their strategy of pursuing projects that would provide a positive return even in the leanest years.

Diagram 2: Declining global reserve replacement trend – Comparison between 1997 to 2004



Source: Morgan Stanley Equity Research, October 2005

However, the conservative investment strategy has a downside as it may result in missed opportunities for longer-term growth and sustainable reserve improvement. Such a strategy may also contribute to decreasing competitiveness to aggressive competitors, especially in a scenario where oil prices are showing an upward rising trend.

3. Increase in cash flows and its investment

The upward trend in oil prices in recent years have positively impacted the bottom line and generated the strongest cash flows in corporate history. Varying approaches have been adopted by players in the industry in relation to their cash flow management and reinvestment strategy. Some oil majors have stayed in line with their disciplined strategy and avoided making expensive investments with the assumption that oil prices will continue to remain high in the future. Some have increased their investments in developing renewable energy sources such as solar power, while others have bought rival oil firms despite the heavy cost involved. Many have substantially increased their spending on exploration and development projects.

Overall, exploration and production strategies of big oil majors emphasise capital discipline as compared to the relatively aggressive strategies of small majors and independent oil producers. However, many industry analysts believe that the conservative strategies of oil majors may further lower their reserve replacement levels.

4. Acceleration in Mergers & Acquisitions (M&A) and consolidations

M&A activities have accelerated in recent years. While many analysts predicted that M&A momentum is likely to continue in 2007, some oil super majors are likely to take a disciplined approach to M&A investments as they believe that the market is currently overvalued.

Unlike oil majors, independent oil producers have been seen aggressively seeking acquisition opportunities to grow reserves as oil prices continue to be high. M&A activities are likely to rise within companies that have low organic replacement ratios or short reserve lives.

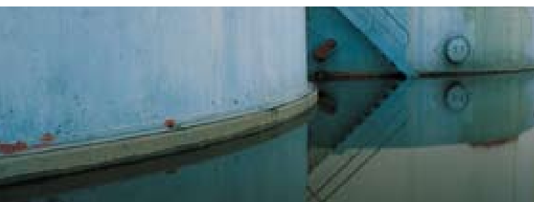
As noted earlier, oil prices touched US$49.90 in January 2007, the lowest since end-May 2005, and a few analysts are expecting further price erosion over the short term. It will be interesting to watch how the declining price trend, if this indeed develops into a new trend, affects M&A activities.

5. Changing role of National Oil Companies (NOCs) impacting industry dynamics

The NOCs are rapidly emerging as major factors in today's demand driven environment, with sovereign control over considerable resources yet to be developed and produced. Western international oil companies (IOCs) control less than 10% of the world's proved oil and gas resource base. The majors account for only 3% of oil reserves and 2% of gas reserves, although they have 20% of production, through contractual arrangement with the NOCs. When ranked on the basis of proved oil and gas reserves, 14 of the top 20 oil and gas companies in the world are NOCs.

More NOCs are partially privatised and going international

NOCs control more than two-thirds of the world's oil and gas reserves and restrict IOCs' access to it. The best NOCs are beginning to expand beyond their own frontiers and compete with the oil majors for control over the remaining resources. NOCs are not only looking abroad for exploration and production assets but also for marketing positions



and infrastructure. Some of the largest NOCs, including Saudi Aramco, Petrobras, and Petronas, are transforming and strategising themselves to align with IOCs. Indian and Chinese NOCs are also beginning to extend their operations internationally.

However, these NOCs face a few serious challenges themselves. Their ambitious goals to enter the international market are generally constrained as access to capital is often restricted or sacrificed for the short-term budgetary needs of the government. The government's needs can be pressing and short term, especially in economies subject to price volatility, while the industry's lead-time is much longer and investments must be in place years ahead of projected demand. Essentially, a balance must be found between the needs of the state and the NOC for available capital to meet the required investments of this capital-intensive industry.

IOCs are challenged by NOCs

There has been a long-running battle between nationalist governments and IOCs over reserves as the natural state of the industry. When the oil price is low and money scarce, IOCs are welcomed for their access to capital and their ability to produce more oil out of NOCs' oilfields.

When the price is high and money abundant, IOCs' technologies and skills seem less desirable. The government tends to increase taxes or break contracts in an attempt to secure a bigger share of the proceeds of oil production when the price rises. In the current environment, most NOCs are capable of developing large and readily accessible fields by themselves with some limited technological assistance from services companies such as Halliburton or Schlumberger where needed. Even in countries where IOCs still provide services because of the difficulties in accessing the oil or the NOCs' inefficiency, these IOCs are seen as supplement providers rather than saviours.

6. Increasing cost pressure

The cost of products and services required by oil producers to explore, develop and produce oil and gas has risen dramatically since 2005. This is due mainly to rising raw material prices and rig costs as measured by rig day rates. According to www.sourcewatch.com, the average fleet day rate increased 6% to US$119,600 from US$113,300 during the final three months in 2005. These rates have remained high during 2006 and there is likely to be an upward trend in 2007.

Inflated service costs have added downside risks to earnings. Capital expenditure increases are likely to continue and this could progressively weaken cash flow for oil companies, especially for majors. Service sector inflation has been substantial for the past year or two, but given the longer-term nature of the contracts, the real impact of the increase in service cost only began to bite from 2006. This will not abate even if the price of oil falls.

Oil prices have retracted substantially in January 2007 and this trend reversal may continue at least in the short term. Increasing cost pressures coupled with declining oil prices may have adverse consequences on the industry.

7. Increasing liquefied natural gas share in the energy mix

Liquefied natural gas (LNG) plays an increasingly important role in the energy mix to bridge the gap between natural gas supply and demand. The LNG industry is set for a large and sustained expansion as natural gas demand considerations, coupled with increasing gas reserves, mandate an escalation in LNG usage.

8. Increasing trend towards non-fossil fuels

The importance of non fossil fuels like nuclear, hydro, tidal, wind, solar and biomass energy has been on the rise in recent years. However, each energy source has its inherent limitations – technologies for exploiting these sources are still in a nascent stage and the costs are high in many cases.

Diagram 3 shows that while the role of renewable and nuclear energy is expected to become more significant going forward, fossil fuel like oil, natural gas and coal will continue to be the major sources to meet the global energy demand.

9. A personnel crunch

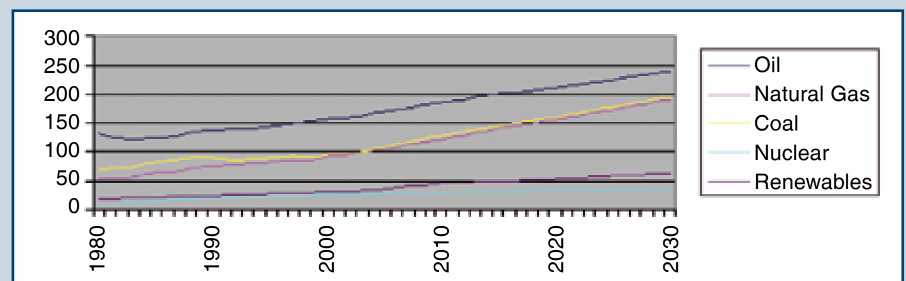
Oil and gas companies are also experiencing the dilemma of an ageing experienced workforce. Approximately half of the professional exploration and production staff is 40 to 50 years old, while only about 15% are in their early 20s to mid-30s. Half of the workforce is expected to retire within 10 years and technical segments of the industry are likely to suffer the most.

Oil and gas companies must move to reverse the brain drain or a severe personnel crunch is preordained.

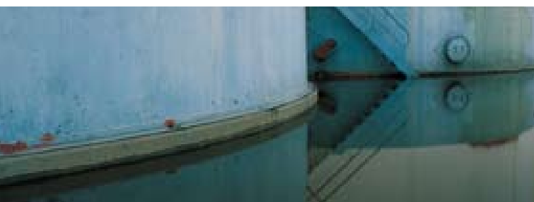
The future of energy

The oil and gas industry is at its critical juncture. Some of the challenges such as the struggle for reserve replacements, increasing reserve replacement costs, increasing costs and ageing experienced workforce remain concerns for the industry. The changing role of NOCs, which are embracing globaliasation has led to a significant change in the dynamics of the industry. The industry is refocusing on energy efficiency initiatives and investing in developing new energy

Diagram 3: Global energy use by fuel type – 1980 to 2030 (In quadrillion British thermal units)



Source: International Energy Outlook 2006 – Energy Information Administration



technologies and resources, such as non-fossil fuels, to meet the ever rising energy demand but oil and gas is likely to remain the most critical energy resource in the foreseeable future.

While the industry has enjoyed fat bottom-line and strong cashflows in 2006 due primarily to continued high oil prices, a price decline trend is being seen in early 2007. It is difficult to predict the period this reverse trend will last and also its consequences. This is therefore something which the industry players would need to keep a close eye on. ■

About PricewaterhouseCoopers Oil & Gas

PricewaterhouseCoopers Oil & Gas team comprises experienced professionals with an in-depth understanding of business/industry-specific regulations and knowledge of real deal issues specific to the local environment. Our team of multi-disciplinary experts, including cross-border specialists, are able to deliver an integrated suite of services to enhance your oil and gas value chain and generate value.

Ong Chao Choon
Partner
(65) 6236 3018
chao.choon.ong@sg.pwc.com

Sanjeev V Gupta
Director
(65) 6236 4053
sanjeev.v.gupta@sg.pwc.com

The article is intended to provide general information only and is not intended to render any professional advice. The information contained in the article is not intended to be used for the purpose of, or as a basis for, making investment decisions or recommendations with respect to securities of any company or industry. No liability is accepted for any reliance on any statement made in the article.

The information contained in this article is based on information produced by government agencies, media articles and other referenced sources, and also analysis conducted by PricewaterhouseCoopers Research and Analytics Group.

Koh Soo How
Tax

Don’t get caught out by GST when you outsource

We now know that the GST rate will increase from 5% to 7% on 1 July 2007. The early announcement of the rate rise has propelled the normally low profile GST into the headlines. For businesses, the early increase in rate means that they will have to move swiftly to get everything done in time.

While consumers anticipate how the way they live, shop and dine will change, PricewaterhouseCoopers chooses to caution businesses and CEOs how this will impact their outsourcing plans – a growing trend in the corporate arena today – and more importantly, how this positions Singapore advantageously, or not, amid our competitive neighbours in the region.

The notion that the GST is tax-neutral for businesses has led to a widespread failure to recognise the risks (and associated penalties) for getting the tax reporting wrong. The higher GST rate means that the penalties would increase proportionately if the risks with outsourcing are not addressed at the planning stage. ■

Why Singapore for outsourcing?

Despite its high cost structure, Singapore is still highly regarded as one of the world's leading destinations for outsourcing. The reasons for this include political stability, strategic location, efficient telecommunication connectivity, world-class infrastructure and a ready pool of skilled workers.

In a 2004 report, the US Department of Commerce ranked Singapore as the second fastest growing outsourcing hub for US multinationals. Reports by AT Kearney, PricewaterhouseCoopers and the Economic Intelligence Unit have also found Singapore to be among the top destinations for offshore outsourcing activities. For such reasons, the Infocomm Development Authority of Singapore (IDA) is confident that Singapore is well-positioned to tap into the global market for high-value business process outsourcing (BPO) activities which, according to research firm Gartner Dataquest, are expected to reach US$173 billion by 2008.

Has GST or VAT been considered?

While successful outsourcing of back office and information technology activities can achieve cost savings from the economies of scale and streamlining of business processes, there can be significant costs if matters relating to tax are not considered.

One critical issue that needs to be most on the minds of business decision makers now, with the higher tax rate, is the GST. Any business considering outsourcing must factor in the consequential GST effects if they are to be successful.

GST can have a major impact on both the ease with which outsourcing can be implemented, and the cost savings associated with such a move. GST tends to be overlooked in the planning stage and often only becomes an issue during implementation. At that stage, it is generally too late to do much but accept the additional costs. Where the outsourcing is regional or global, the GST becomes even more complex. And where the financial services industry is concerned, GST becomes a real cost.

Higher costs for financial services?

To illustrate the increasing layers of complexity, let's start with a simple case of a bank in Singapore wanting to outsource its back office functions. The financial services industry is one of the key users of outsourcing, as well as one of the few industries in Singapore that is partially exempt from GST. This means that most of their income is exempt from GST, i.e. GST has not been charged on it. As a result, they can only recover a percentage of the GST that they are charged on their costs.

If a bank uses its own staff to provide its back office services, the only costs that it will incur irrecoverable GST will be that of its computer equipment and other overheads. There is no GST charged on staff costs.

When the bank moves to an outsourcing arrangement, it will be charged GST on the whole service fee from the outsource provider in Singapore. This service fee will include the labour costs of the provider. Essentially, the amount of irrecoverable GST for the bank increases.

While the GST rate in Singapore is relatively low, and banks get relatively high recovery rates (when compared globally), the additional GST will make a dent in the expected savings. The increase in rate from 5% to 7% from 1 July 2007 will make this more noticeable.

If the outsourcing arrangement extends beyond Singapore, the

GST costs would rise significantly. The bank might then consider offshoring as services received from abroad do not currently attract GST. This, however, works against the IDA's efforts in promoting Singapore as a BPO hub.

Any more GST challenges?

This increase in direct costs does not constitute the full impact of a GST hike on outsourcing. Virtually every country in the region has a GST or a value-added tax (VAT) system, and those without are planning to introduce one soon. In building the business case for outsourcing and deciding which activities to outsource, organisations need to take into account the following:

- Little or no synchronisation of GST and VAT systems regionally and globally;
- Variable and often multiple GST rates in the same country for domestic supplies;
- Language barriers;
- Differing invoice and return formats; and
- Different reporting periods and often harsh penalty regimes.

To illustrate some of these issues, let's consider another simple situation where an organisation decides it wants to consolidate its invoicing functions for the region at one hub in Singapore. As a manager of this hub, all you need to do is raise the sales invoices for your associated companies around the region. You might, however, encounter some difficulties.

First, you need to know all the different formats for invoices in the relevant countries, and the language that is used. Fortunately, and if you ask nicely, most countries will allow you to issue invoices in English. However, the formats of the invoices will still differ.

Then you need to know the different GST rates in all the other countries, as well as when those different rates apply to the transactions that your group makes, on a country-by-country basis. There may also be different rules governing when the invoices must be issued, and when the tax charged on those invoices is due. You need to build your system to be able to deal with all these variables.

If you want to issue electronic invoices, a whole new set of rules will apply – in fact, some countries simply will not allow it. Once this is set up, you will need to put in place processes to ensure you know about, and can react to, any changes in any of the countries involved. This information will be required in "real time", as you will

need to be able to make decisions as soon as changes happen.

How well do you know your risks?

If you are outsourcing accounting functions, your systems need to be able to cope with all of these differences, all day, everyday. The reporting requirements arising from Sarbanes-Oxley make it obligatory for senior management to attest formally to the accuracy of the financial statements and the integrity of their financial controls. How assured is senior management of this?

In order to be able to meet these legal obligations, senior executives need a much clearer picture of their GST affairs than ever before. They need the people responsible for GST to provide satisfactory answers to questions about GST risks, internal controls and how they have been applied, before they can certify that all is well.

The ability to meet the regulatory compliance standards is typically much more difficult for indirect taxes than direct taxes. The processes that control indirect tax are generally hidden from senior management within the local finance function. Historically, these processes have not been consolidated and prescribed on a group-wide basis. Outsourcing may make this easier or more complicated.

So how?

It is not good enough for senior management to simply ask questions about tax compliance once a year. They need to understand, and be more involved in the control and management of the systems. For example, they should have available real-time information on GST registrations, outstanding compliance enquiries, the timely submission of GST returns, and the existence of risks in their systems.

Outsourcing is a growing business globally, and Singapore is committed to becoming the trusted BPO hub for the region. The key message is: don’t let GST become an unexpected cost of complication. If you properly address it at the planning stage, you can factor in the direct and indirect costs associated with it and make the necessary plans to mitigate the effects. Leave it to the implementation stage and it may be too late. ■

About PricewaterhouseCoopers GST Practice

Adopting a business-focused approach, PricewaterhouseCoopers GST team provides local and international consultancy services to SMEs and multinational corporations. The team can help in:

- Identifying areas to improve efficiency
- Avoiding reporting pitfalls
- Providing in-house training
- Performing GST health checks
- Managing GST audits

Koh Soo How
Tax Partner
(65) 6236 3600
soo.how.koh@sg.pwc.com

This article was contributed to The Business Times and first published on 7 December 2006.

Ho Mui Peng
Tax

Lina Lew
Tax

Singapore's Maritime Finance Incentive vis-à-vis Germany's and Korea's

The Maritime Finance Incentive (MFI) administered by the Maritime and Port Authority (MPA) could not have been introduced at a better time as Singapore pushes towards improving its competitive edge to become one of the leading international maritime centres.

The MFI is an attractive financial incentive for shipping companies as many are increasingly finding it a challenge to finance their capital intensive vessels in addition to managing escalating oil prices which affect their operating costs. Not only does the MFI provide an alternative and cheaper source of financing for shipping companies, it also provides opportunities for both public and private (retail and institutional) investors to invest in shipping funds with promising high yields. ■

The potential yields are expected to be as high as 9%, which is generally higher than that offered by a typical real estate investment trust (REIT). While not explicitly stated in the MPA guidelines, it is understood that the MFI is also available for oil rigs financing.

What the MFI effectively allows is for existing shipping companies to offload their existing ships from their balance sheets. This enables the shipping companies to reduce their dependency on bank financing and achieve an overall lower cost of capital. This will also improve their bottomline and free up cash for operations.

There are also tax benefits available under the MFI for the respective parties who must all be Singapore resident parties. In a nutshell, the tax benefits include:

Approved Ship Investment Enterprise (ASIE)

- Tax exemption on qualifying leasing income for the entire life of a vessel, acquired by an ASIE within its incentive period, from the operating or finance leasing of:
  - Singapore-registered vessels*
  - Foreign-flagged vessels* operated by companies under the approved international shipping (AIS) scheme
  - Non-AIS vessels* to non-Singapore tax residents

  ** Includes oil rigs*

- Tax exemption on foreign dividends from approved network shipping companies

- Other related shipping income based on the merit of the application to MPA

Approved Ship Investment Managers (ASIM)

- Concessionary tax rate of 10% on income from controlling and managing ASIE's vessels in Singapore, and income from acting as a fund manager for a period of 10 years

The ASIE can be a ship leasing company, a shipping fund or a registered business trust owning and/or operating the vessels. It also has the flexibility of sourcing for public funds by listing its shares on the Singapore Exchange. Other ship financing business models can be packaged under the MFI as well.

While the above tax benefits have yet to be legislated, there may be some informal criteria to be met, subject to negotiations with the MPA on a case-by-case basis. These may include the fund size, Singapore business spending, fleet size and more.

The attractiveness of the MFI

Compared to the popular German Kommanditgesellschaft (KG) fund and the Shipping Investment Company (SIC) fund in Korea, the MFI presents very attractive tax breaks to an ASIE and ASIM based in Singapore.

The table on page 60 summarises the key features of the KG and SIC schemes vis-à-vis Singapore's MFI.

Investors in a MFI fund are certainly better off as their dividends from the fund will be tax exempt, whereas some taxes are still payable in Germany and Korea by the investors of KG and SIC funds. This is particularly so in instances where the income from the fund is from non-AIS ships which would not have been covered by any shipping tax incentive in Singapore without the MFI tax incentive.

Not only are the tax benefits from the MFI more attractive than the KG and SIC funds, the MFI can also be further refined to mirror one key financial incentive

available for underlying assets of investment funds.

For example, the MFI can exempt, outright, the profit from sale of the underlying ship or rig from tax, just as the profits from the disposal of securities (of a trust fund) are not taxable on the fund regardless of the period of holding. The certainty of tax exemption on capital gains will allow the ASIE to better manage dividend distributions to the investors of the fund. The ASIE is, afterall, an investment fund. Currently, sale proceeds of a Singapore-registered or AIS ship are tax-exempt until financial year 2008. There is no outright tax exemption for the profit on the sale of a non-Singapore flagged or non-AIS vessel owned by an ASIE for a short period. In practice, it does take a few years to convince the authorities that the profit on sale of a capital asset is a capital gain and not a taxable trading profit.

One area which the MFI does not provide full tax benefits to is charter payments. Currently, withholding tax exists for charter payments made by an ASIE when it charters a non-Singapore flagged or non-AIS ship for its operations from non-resident third parties. Administratively, it will be easier for everyone involved if all charter hire payments made by an ASIE are exempted from withholding tax.

The outlook for the MFI

The rules and qualifying criteria for the MFI incentive will likely be refined and improved upon as the MPA deals with more investors and their differing requirements. Following the footsteps of the Pacific Shipping Trust launched in May 2006, more shipping funds are expected to be established in the near future, especially with the recent release of the MFI guidelines. With all these in place, Singapore’s position as one of the leading international maritime centres will undoubtedly be more entrenched. ■

Table: MFI vis-à-vis the KG and SIC schemes

	Germany **KG Ship Fund**	**Korea** **SIC Ship Fund**	**Singapore** **MFI**
Taxation of fund	As the KG fund is a limited liability partnership, it is tax transparent. Profits are taxed in the hands of the investors.	Not taxable if 90% of the fund income is distributed to investors.	Outright exemption on leasing and other qualifying income for the entire life of the vessel.
Investors	Both corporate and individual partners can opt for the partnership distributions to be taxed under the tonnage tax system instead of being taxed at the normal high corporate tax rate.[1]	Individual investors will be taxable on dividend distributions only if their shareholding at par value exceeds KRW 300,000,000 (approx. SGD 500,000) at 15.4% on the excess. Corporate investors are subjected to tax on the dividend distribution at the normal Korean corporate tax rate.	Dividend distribution is tax exempt for both corporate and individual investors.
Ship Investment Manager	Tax exempt for third party ship manager located in Germany if vessel managed is in tonnage tax regime.	Taxable at normal corporate tax rate.	Qualifying management fee income taxed at 10%.

[1] The tonnage tax system allows income from the shipping fund to be taxed on a deemed profit basis, as opposed to the actual operating results, computed according to a ship's tonnage at a flat rate. The resulting tax payable on the deemed income will be nominal and remain payable even if the ship is operating at a loss.

About PricewaterhouseCoopers Tax

PricewaterhouseCoopers Tax practice is among the largest in Singapore. With more than 250 tax professionals and directors, we help individuals, businesses, both public and private organisations, with tax strategy, planning and compliance. From financial services, treasury, fund management, mergers and acquisitions, intellectual property, international tax planning (inbound and outbound) and Goods and Services Tax (GST) to transfer pricing, our tax professionals will provide you with the ideal tax solution.

Ho Mui Peng
Partner
(65) 6236 3838
mui.peng.ho@sg.pwc.com

Lina Lew
Senior Manager
(65) 6236 3787
lina.lew@sg.pwc.com

This article was contributed to The Business Times and first published on 2 November 2006.

Design & Layout
Danielle Looi

Circulation, comments & suggestions
Maimunah Asmawi
at (65) 6236 3953
maimunah.asmawi@sg.pwc.com

Printer
Image Office Systems
& Supplies Pte Ltd
MICA(P)268/09/2006

Address
8 Cross Street #17-00
PWC Building Singapore 048424

This publication aims to provide clients with an update on business trends. No liability can be accepted for any action taken as a result of reading the notes without prior consultation with regard to all relevant factors.

The firms of the PricewaterhouseCoopers global network (www.pwc.com) provide industry-focused assurance, tax and advisory services to build public trust and enhance value for clients and their stakeholders. More than 140,000 people in 149 countries across our network share their thinking, experience and solutions to develop fresh perspectives and practical advice.

“PricewaterhouseCoopers” refers to the network of member firms of PricewaterhouseCoopers International Limited, each of which is a separate and independent legal entity.

Copyright © April 2007 PricewaterhouseCoopers Singapore.
All rights reserved.
*connectedthinking is a trademark of PricewaterhouseCoopers.

www.pwc.com/sg

PRICEWATERHOUSECOOPERS