How can diversification be used to unlock growth potential in emerging markets?

Why does operational flexibility offer financial services a new frontier?

What is technology’s evolving role in wealth management?
The global economy continues to follow the sluggish trend of 2014, with the Eurozone being a particular area of weakness. “Policy-makers and businesses need to make sure that they plan for growth, but hedge against the very real threat of contraction,” warns the EY Eurozone Forecast.1 Yet amid such uncertainty, there is still plenty of room for improvement and sustainable results. Many companies, for example, are looking at diversification to drive growth.

We offer insight into two very different emerging market scenarios. Firstly, we examine the limited diversification success of a number of consumer products companies in India and offer a three-phase approach to reduce uncertainties and unlock growth potential in this and other markets.

In contrast, we examine the diversification challenge faced by the Gulf countries, where earnings from oil and gas account for 80% of budget revenues. To build stronger, more stable economies, the region must diversify, and a range of options are already being exploited.

One of the reasons why the Gulf countries have been able to develop long-term diversification strategies is the support provided by their governments to help boost entrepreneurship and encourage investment. In “TURQUALITY®: an inspirational emerging market growth story,” we explain how the Turkish Government is playing a similarly influential role in that country. With an aspirational goal of achieving a US$500b export volume by 2023, the Turkish Government has been investing in supporting R&D, innovation, design and branding to boost exports through a subsidy program called TURQUALITY®.

We also consider the impact of technology across a range of sectors. For example, “Health and mobility: realizing the power of mobile technology” outlines the opportunities for mobile health in Africa and draws on examples of innovative approaches to health care delivery in Africa, India and Australia. In “Technology’s evolving role in wealth management,” we explain how digital technologies such as mobile, social and analytics are leading wealth managers to digitize the value chain and create competitive advantage. And in “Why operational flexibility offers a new frontier for the financial services sector,” we explain how companies can combine traditional values and practices with new technologies and business processes, thereby engaging customers.

We also have an interview with Dane Kondić, CEO of Air Serbia, in which we learn how, following an equity partnership with Etihad Airways, support from the Serbian Government and a new management team, the airline has been renamed, reborn and is working toward profitability in the space of one year.

And in “Modular product design: reducing complexity, increasing efficacy,” we show how to reconcile the competing pressures of customer demand with the drive to cut costs and remain competitive.

I hope the articles in this edition of Performance provide valuable insight and information to help your business innovate, grow, optimize and protect.

Enjoy reading this issue!

Markus Heinen
Chief Patron, Performance

---

1. EY Eurozone Forecast, EY, September 2014.
<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>02</td>
<td>Health and mobility: realizing the power of mobile technology</td>
</tr>
<tr>
<td>12</td>
<td>Unlocking growth potential in emerging markets: diversification success in consumer products</td>
</tr>
<tr>
<td>24</td>
<td>Technology’s evolving role in wealth management</td>
</tr>
<tr>
<td>32</td>
<td>TURQUALITY®: an inspirational emerging market growth story</td>
</tr>
<tr>
<td>40</td>
<td>Air Serbia: the new wings of Europe</td>
</tr>
<tr>
<td>48</td>
<td>Why operational flexibility offers a new frontier for the financial services sector</td>
</tr>
<tr>
<td>56</td>
<td>Modular product design: reducing complexity, increasing efficacy</td>
</tr>
<tr>
<td>64</td>
<td>Beyond the barrels: the Gulf’s diversification challenge</td>
</tr>
</tbody>
</table>
Health and mobility: realizing the power of mobile technology

In this article, we outline the opportunities for mobile health (mHealth) in Africa and explain EY's perspective on where mobility is having a significant impact on health care. We highlight several examples where mHealth is enabling innovative approaches to health care delivery in Africa, India and Australia. Understanding the current and future impact of health and its relationship to mobility is crucial to developing solutions that meet the needs of diverse populations globally.
Tremendous strides are being made in the accessibility and quality of mHealth technology globally. The telecom industry continues to drive growth in mature and emerging markets, specifically with mobile value-added services, due to large investments in infrastructure development and affordable hardware options that meet market demands and prices. Smartphone technology is serving as a catalyst in bridging the digital divide, with its rapid mass adoption around the world allowing populations to access data anytime from anywhere.

From banking to health care to education, mobile and cloud-based technology offers an almost unparalleled promise of opportunity. Technology is providing an enabling tool to help improve lives, leverage and capture real-time information, offer analytical insights and deliver services to those who were once hindered by physical or financial barriers. In developing countries, this technology holds the potential to transform populations and revolutionize antiquated business, health and financial systems while enhancing economies.

The World Bank Report Maximizing Mobile – Human and Economic Development Opportunities states that three-quarters of the world’s population has access to a mobile phone. The number of mobile subscriptions is growing rapidly from less than one billion in 2000 to over six billion currently, of which nearly five billion are in developing countries. In 2011, more than 30 billion mobile applications were downloaded.
How technology helps health and sustainable development in sub-Saharan Africa

Sub-Saharan Africa remains a continent of growth and opportunity. Overall health indicators are improving, with significant increases in routine immunization coverage rates, the availability of antiretroviral treatment for people living with AIDS and decreases in maternal mortality.4

From a public health perspective, international development agencies understand the current challenges of effectively integrating mobile solutions into facility- and community-based health services. Health SMS (text) campaigns alerting mothers when and where they can take their children for routine immunizations and behavior-change communication campaigns focused on safe motherhood are well established in Africa.8

With the success of SMS campaigns to raise awareness and knowledge regarding specific health issues, the evolution to more sophisticated interventions is in process. One example is UNICEF’s RapidPro, which launched in 2014 and is designed as an open-source SMS framework of operating systems for mobile phones. The concept is that organizations can build mobile-based applications that contribute to managing SMS-based data collection, complex workflows and data analytics.

According to the International Data Corporation’s Worldwide Quarterly Mobile Phone Tracker, smartphone shipments are expected to surpass one billion units in 2013, representing 39.3% growth over 2012. Emerging markets continue to drive smartphone sales forward and, by 2017, the estimated total smartphone shipments are expected to approach 1.7 billion. This data represents an opportunity to develop integrated solutions that leverage mHealth, money and commerce to incentivize behavioral and economic choices made by individuals and communities. Mobile solutions can be powerful enablers, as Africans are adopting and using technology despite their level of economic and social vulnerability.7

Within the first five months of 2014, sales for wearables increased 684% globally, and will reach US$5.8b by 2018, with Europe and Asia-Pacific representing 49% of the market.

Looking beyond health, the private sector is integrating mobile banking, money and commerce in many African countries. SafariCom and other telecom giants in sub-Saharan Africa are currently working to expand and improve mobile and internet services. SafariCom's M-Pesa mobile money system in Kenya is an example of how technology is reaching millions of people. According to The Economist, M-Pesa was originally designed to manage microfinance loan repayments by phone, reducing the costs associated with handling cash and lowering interest rates. The system expanded and is now used by approximately 17 million Kenyans, and about 25% of the country's gross national product is processed through it. The services offered through M-Pesa include money transfer, salary deposit, loans and savings and bill payment. Many Kenyans believe that this system is safer than using a traditional bank or wire transfer company. With the growing demand for mobile technology, health systems will continue to rise and, with it, the need for elevated dialogue and collaboration between public and private institutions. EY believes that mobile technology will change the way health care is being delivered in Africa and support improved behavioral economics, with significant positive gender implications. Research demonstrates that women who have access to economic resources are more educated, have better health and nutrition, are in more equitable and less abusive relationships, and provide their children with similar advantages. A key objective of EY is to drive cross-industry solutions related to health, commerce and education to enhance the quality of people's lives, communities and economies around the globe. EY is committed to designing and implementing interventions that link health and gender to economic opportunities that go beyond micro-finance to building networks of small and medium enterprises. This was demonstrated at the recent EY Africa Strategic Growth Forum, which focused on the importance of inclusive sustainable growth and the five priorities needed to realize Africa's potential:
1. Embracing shared value
2. Promoting partnerships
3. Fostering entrepreneurship
4. Accelerating regional integration
5. Bridging the infrastructure gap
These building blocks are shared throughout EY as we focus on health system strengthening by building partnerships that foster improved health outcomes, gender empowerment and supporting communities using technology as a tool to enhance connectedness.

How India uses mHealth to monitor health and control disease
Driven by the health needs of its approximately 1.2 billion people (many of whom are based in rural geographic areas), India has pioneered population health monitoring and disease-control mHealth solutions. The country’s rapid growth in the last two decades has propelled it to the world's fourth-largest economy. The significant gains in economic growth are improving poverty and health demographics. Among key indicators, life expectancy has doubled, literacy rates quadrupled and a sizable middle class has emerged. The information and communications technology (ICT) sector is playing a key role by contributing to 7.5% of GDP in 2012 compared with 1.2% in 1998. The rapidly growing Indian ICT industry is capitalizing on the advantages of India’s talent pool, lower-cost operations and an innovative remote delivery model. The sector is helping to transform the country’s image into that of a dynamic and entrepreneurial economy. India ranks as the second-largest mobile market in the world with 893 million mobile subscriptions, representing 62.5% of the population. Its mobile services market was expected to reach US$20b
2013, a growth of more than 8% compared with 2012, and its ecommerce market is poised to grow to US$43b in the next five years. Despite this impressive growth, India continues to be challenged with widespread poverty, low public health spending and a stressed health infrastructure. In particular, the tuberculosis (TB) epidemic remains a primary health concern, with over 2.2 million new cases annually, accounting for one-fifth of the global incidence. With the many constraints and challenges facing the health system, the need to develop creative and cost-effective solutions is critical. India is drawing on the knowledge capital of its booming technology sector to innovate and strengthen the development of health information systems and combat a number of its health challenges. Supported by both the private and public health sectors, mHealth in India is evolving from a health information push mechanism to a transformative tool designed to positively influence and better meet the health needs of underserved demographic segments of the population.

An example of this type of low-cost solution was developed by Tata Docomo, the Global System for Mobile Communication arm of Tata Teleservices. They created Sparsh, which is an interactive voice response service using mobile phones as a vehicle to share accurate information and increase awareness among its subscribers about sexual health issues. The content of the information provided is certified by the Family Planning Association of India, one of the country’s largest sexual and reproductive health non-governmental organizations. Supported by both the private and public health sectors, mHealth in India is evolving from a health information push mechanism to a transformative tool designed to positively influence and better meet the health needs of underserved demographic segments of the population.

An example of this type of low-cost solution was developed by Tata Docomo, the Global System for Mobile Communication arm of Tata Teleservices. They created Sparsh, which is an interactive voice response service using mobile phones as a vehicle to share accurate information and increase awareness among its subscribers about sexual health issues. The content of the information provided is certified by the Family Planning Association of India, one of the country’s largest sexual and reproductive health non-governmental organizations.
Demonstrating EY's commitment to innovation: India in action

India’s Government recognizes the opportunity that mHealth can provide in helping it achieve universal health care coverage for its population. In order to realize this goal, the Government is prioritizing the development of a health information system. The system will connect networks of health service providers, establishing state-level disease surveillance systems and universal registration of births and deaths. This will enable the Government to have an accurate profile of the health demographics and key population indicators for improved monitoring and evaluation.

EY, through its work with the Bill and Melinda Gates Foundation, is utilizing ICT to support the Indian Government’s National TB Control Program. EY’s relationship with the foundation in the area of TB control interventions started in 2012 with a landscape analysis of TB in India, in which we identified how leading ICT practices could be used to support TB control. Subsequently, EY’s teams have collaborated with the Gates Foundation and its partners on several aspects of TB control activities. EY is currently working with the Gates Foundation on an urban TB project that aims to utilize the potential of an ICT application and a contact center to create awareness and improve diagnosis accuracy and treatment adherence, increase access to services and facilitate data sharing among stakeholders to integrate the public and private sectors. The use of ICT is focused on improving the quality of implementation, service delivery and monitoring of TB treatment processes, especially at the community level, EY utilized its project management expertise to support the ICT platform across the entire program, including:

- Defining the functional requirement specifications for the ICT framework
- Managing the program for the overall sustainable development and implementation of the ICT roll out by a systems integrator that involves multistakeholder collaboration with the Private Provider Interface Agency (PPIA), providers, data working group and other participating agencies for requirement gathering, system development and user testing
- Monitoring and defining the data quality standards to help ensure data being captured in the field is integrated onto an ICT platform
- Ensuring smooth integration between the public and private ICT platforms

It is anticipated that, through this platform, there will be improved visibility, control and patient tracking as a result of unique case files for each patient across the TB treatment cycle. In addition, the solution is expected to lead to increased engagement and contribution by the private sector toward TB control due to early and accurate diagnosis, prompt treatment, reporting and notification.

EY recognizes the potential of technology and how it can and will change the landscape of health care globally. Being a global leader in the private sector consulting industry requires courage, commitment and the willingness to take risks. Therefore, EY is prioritizing and investing in innovative mobility solutions for improving population-based health care, increasing access to services and strengthening systems, driven by a desire to build a better working world.
organizations. Customers can access this service in three languages (English, Hindi and Marathi)\(^1\) for a fee of 10 rupees over a 10-day period.

Another innovative technology model in India is the collaboration of the MOTECH Suite consortium. MOTECH brings together several of the most experienced mHealth implementers, open-source providers and funders to develop innovative solutions that apply to a broad range of health service areas. These areas include behavior change and demand creation, managing patient data, improving health worker performance, “last mile” supply chain assistance and patient adherence to medication. Open-source capabilities in these areas are being developed through a series of flagship programs with consortium partners. Two notable examples of these programs are:

► **CARE International**: pregnant women and children under one year old are tracked, using mobile phones, along the continuum of care, with specific protocols on birth preparedness, labor and delivery, postnatal care, exclusive breastfeeding and complementary feeding. Schedules are generated for home visits, which allow health services providers the ability to organize and plan their work. Built-in checklists enable health providers to adhere to the most appropriate protocol during their interactions with beneficiaries. For example, the application generates a list of patient alerts in each health worker’s catchment area reminding them who is due for immunizations. Supervisors receive real-time reports on services delivered and can follow up if one of their patients did not attend a facility for their immunization appointment.

► **Johnson & Johnson**: in six cities, the MOTECH Suite Treatment Advice by Mobile Alerts (TAMA) calls HIV and AIDS patients to remind them to take their daily antiretroviral medications. Patients can also receive appointment reminders, track their adherence and inquire about side effects they may experience or are of concern to them. Nurses use a web-based tool that allows them to view detailed patient data.\(^2\)

---


and influence their personal well-being and empowers patients to contribute meaningfully to their own health outcomes. While participatory health connects patients to critical services across the health spectrum — streamlining support, promoting flexibility and elevating participation — it also signifies an increased self-motivation toward healthier living.

Digital technologies such as social networking, mobile applications and wearable devices serve as vehicles for consumers to generate, share and monitor vital health information, offering increased access and control over their own health management and awareness.

Australia’s My QuitBuddy mobile application represents a current example of the country’s advancement toward participatory health. Launched by the Australian National Preventative Health Agency (ANPHA) in June 2012 as part

---


Research demonstrates that women who have access to economic resources are more educated, have better health and nutrition, are in more equitable and less abusive relationships and provide their children with similar advantages.

of the Australian Government’s National Tobacco Campaign, My QuitBuddy offers customized, interactive tools designed to curb cravings and facilitate a smoke-free lifestyle. Users document and manage personal goals, tracking the decline in cigarettes smoked, grams of tar inhaled and money saved. The application includes message boards and links to Facebook and Twitter, where participants share stories and provide community support. My QuitBuddy serves as an advocacy tool for personal wellness and advances the trend toward healthy behavior change. Since inception, My QuitBuddy posted more than 265,000 downloads and 13,500 community comments, creating a network of support for those who engage in the program. More than 40% of users remained smoke-free for nearly six months.21

The increase in popularity of wearable technologies further illustrates the expansion of consumer-driven health interest. Wristbands such as FitBit and Jawbone wirelessly synchronize to a user’s mobile device, recording fitness activities and monitoring vitals. Enhanced smartwatches, illustrated by the Apple Watch22 and Samsung’s Galaxy Gear, incorporate messages and phone calls, offer multiple third-party health and wellness applications and display user’s information with a glance at the wrist. Within the first five months of 2014, sales for wearables increased 684% globally,23 and will reach US$5.8b by 2018, with Europe and Asia-Pacific representing 49% of the market.24

Though increasingly popular, the long-term effect on healthy behavior is still undetermined. Some studies suggest that one-third of wearable owners abandon their device after six months due to boredom, functionality or appearance.25 The vigor of the market, however, embraces fleeting interest and propels innovation to advance platforms for increased effectiveness and viability. For instance, digital communities of like-minded people who network to improve personal well-being demonstrate a sustainable approach to behavior change.

Launched in 2010, the online community Hello Sunday Morning (HSM) encourages users to adjust their relationship with alcohol. Introduced as a unique way to address Australia’s drinking culture, the self-regulated site avoids efforts focused on rehabilitation and instead provides an environment where participants share experiences and advice and offer encouragement. The vast, diverse backgrounds and personal goals of users generate a community that constantly evolves. Today, HSM welcomes more than 50,000 members worldwide who boast a reduction in alcohol intake by 40%.26

Through innovative technologies, Australia’s drive toward personal health management recognizes the potential and understands how to address unique, underlying complexities of consumer-driven care. A multifaceted environment demands a structured and holistic approach to developing connected networks. This approach is progressively moving the country forward on its path to transforming traditional health care practices. ■
Unlocking growth potential in emerging markets: diversification success in consumer products

Launching a new product is a critical decision for any consumer product company. If executed poorly, it could result in significant costs and a high risk of failure. And yet, the opportunities, particularly in emerging markets, are there for the taking. This article draws on examples from India of how majors have attempted to diversify and offers insights into how to defend against the uncertainties associated with diversification.
Author
Ravi Kapoor
Director, Consumer Product Practice,
EY, India
Emerging markets define the new elixir of growth for consumer packaged goods (CPG) companies. By 2020, Unilever expects to derive 70% of its total sales (up from 56% in 2012) from these markets. Procter & Gamble (P&G) intends to add one billion new customers into its fold by 2015 (up 25% from 2012) and take contribution from emerging markets to approximately 40% in 2016 (from 34% in 2010).\(^1\)

However, emerging markets do not lend themselves to a “cookie cutter” analogical approach where one unquestioningly works on a single market evolution model. What is possibly needed is a kaleidoscopic view, i.e., being prepared to create a different perspective for each category, geography and consumer. In the words of C. K. Prahalad: “The basic requirement for understanding Consumer India is to recognize that there are no simple algorithms to segment it. It is the methodological nuances that allow one to get at the heart of this opportunity.”\(^2\)

Overlay the emerging market complexity with inherent challenges in creating successful innovation for any market and we have the potential for many lost opportunities and spent millions. A study published in Harvard Business Review\(^3\) states that nearly 75% of all consumer goods and retail products fail and are withdrawn within a period of 12 to 24 months of launch. Indian consumer product companies, both homegrown and established multinationals, find themselves in a similar dilemma. With opportunities slowing in existing categories and increasing competitive pressures, companies are looking at entry into newer categories to drive growth. A quick assessment of a few consumer product companies in India reveals a trend toward expansion into new categories over the past five years:

- Hindustan Unilever Limited (HUL): even though it already has a presence across 20 consumer product categories, it has still expanded in niche categories, such as liquid detergent, fabric softener and fabric whitener.
GlaxoSmithKline (GSK) Consumer Healthcare: instant noodles, biscuits, breakfast cereals and oral care
P&G: oral care, air fresheners and hair color
Mondelez - Cadbury brand: biscuits

Why has diversification success been limited?
The fast-moving consumer goods (FMCG) players have had varying degree of success in the new categories they have tried to enter. This is despite a dominant trend of increasingly branded consumption in the country driven by favorable demographics, a rising tendency toward indulgence, growth in per capita incomes and spread of organized retailing environments.

Some of the salient reasons for failure include:
1. Gaps in understanding the market landscape for the new product category:
   - Understanding the drivers of buying behavior: Marico, a leading Indian FMCG company introduced a line of baby care products under the brand “Sparsh” but was struggling with consumer off-take. Although Marico invested in marketing and differentiating the brand, parents largely bought products that were recommended to be safe for babies by their paediatricians (influencers).
   - Invest in developing a nascent category: GSK in India withdrew a plethora of products such as Nutribar cereal bars and Horlicks flavored milk. Some experts feel GSK was, perhaps, a bit too impatient and exited some categories too early. For example, Amul is investing time and capital into building flavored milk rather than focusing on short-term profitability.

2. Inability to decode the value chain:
   - Distribution model and channel margin should be sustainable: HUL introduced a confectionery brand, Max, that struggled to gain market share. Industry analysts believe HUL appointed an exclusive distributor for the brand that was not sustainable in the long run. Furthermore, the channel margins were not competitive, leading to challenges around penetration in most cities.

3. Internal capability gaps for operating in the category:
   - Focus on sustainable growth: HUL simultaneously introduced several product categories under its Ayush brand, focusing on health and wellness. Industry analysts were of the opinion that HUL should have concentrated on building the brand and launch a single product initially. Instead, the company launched a plethora of products and confused the customer.

With opportunities slowing in existing categories and increasing competitive pressures, companies are looking at entry into newer categories to drive growth.

A three-phase approach to successful diversification

EY works with a variety of consumer products companies around successful diversification, using a three-phase approach to devise entry into the new categories. The first step is all about focusing on the categories of interest. For the chosen categories, “where to play” and “how to win” choices are identified. The second step is to make the choices in such a way as to meet the twin objectives of creating a credible differentiation in the marketplace and executing a feasible plan given organizational capabilities. The last phase concentrates on creating detailed financial projections to seal the business case for the intended innovation. The second and third steps are undertaken primarily through building a detailed understanding of the value chain for the particular category and a structured internal assessment to identify the gaps in the capabilities needed to operate successfully in the category.

Phase 1. Category selection and opportunity assessment

Opportunities for entry into new categories are identified based on the context of the organization in question and are classified according to the following framework (see also Figure 1).

1. Core: opportunities in existing categories of operations, e.g., extending a current product line
2. Adjacent: new products that complement existing categories of operation, e.g., hand and foot lotions from an existing skin care or personal care major
3. Unrelated: categories with no relation to current business, e.g., GSK’s foray into biscuits from malted beverages, under the Horlicks brand franchise

While unrelated categories offer the maximum opportunity for revenue growth, expansion into such categories is more time-consuming and expensive and has a higher risk of failure.

Figure 1. Framework for classifying new categories of diversification
Emerging markets do not lend themselves to a “cookie cutter” analogical approach where one unquestioningly works on a single market evolution model. EY assisted a US-based packaged foods major to develop its portfolio expansion strategy for its India operations. A detailed assessment for likely categories of entry was undertaken using the following framework:

**Phase 1 category shortlisting**
Understanding of the detail behind the category is complemented by building customized frameworks to help shortlist them. For example, the framework used to shortlist an adjacent opportunity contains factors centered on critical value chain capabilities, such as sourcing, manufacturing and channel complexity management. Whereas for core strengthening opportunities, the parameters evaluated are primarily on the investment required to build a differentiated product proposition and how critical and complex it is to drive consumer engagement and visibility at the point of sale.

An organization typically evaluates a group of opportunities in one go. These then need to be prioritized by balancing category attractiveness with ease of implementation. The factors typically considered for the two dimensions are as follows:

**Category attractiveness:**
- Scale and profitability
- Competitive intensity
- Strategic fit
- Financial reward

**Ease of implementation:**
- Speed to market
- Market cannibalization
- Complexity of building a differentiated consumer proposition
- Go-to-market complexity
- Manufacturing complexity
- Raw material and packaging complexity
- Regulatory constraints

When using the framework, it is very important to retain objectivity. This is ensured by breaking down each factor into its constituent parameters. Thus, while being ranked, each opportunity is subjected to similar levels of data diligence, thereby preventing any biases occurring that might favor some opportunities over others. For example, what appears to be a potentially subjective category attractiveness parameter, such as “competitive intensity,” is broken down into three further parameters: Herfindahl Index,8 share of unbranded segment and ease of new player entry. The latter is measured by the number of new brand launches in the category over the last 12 months to drive consistency of factor interpretation across opportunities and enable consensus building in a group.

The weighting across factors translates into ease of implementation and category attractiveness scores. These scores are plotted across opportunities to prioritize and build consensus (see Figure 2).

---

8. The Herfindahl Index is a measure of the size of firms in relation to the industry in which they operate. It gives an indication of the level of competition within that particular sector.
The maturity assessment exercise helps unravel the critical question for an organization: “Where do I have gaps in capability compared with the industry standard or my stated differentiated positioning?”

**Figure 2. Prioritization framework for each opportunity**

The size of the bubble indicates the opportunity value in the next five years.
Phase 2. Operationalizing the strategy

Operationalizing the strategy involves answering two questions:

1. What marketing mix choices enhance the potential for success?
2. What capabilities are needed across the value chain to implement the mix choices?

Phase 2(a): making the mix choices

The mix choices include decisions on:

- Consumer segments that will meet the size and profitability ambitions
- Product portfolio that will drive differentiation
- Pricing tier(s) consistent with consumer segment choices
- Geographic prioritization by regions and population strata to reflect those areas that have the most target consumers
- Channel prioritization that will help reach the identified consumer segments

While making choices on consumer segments, it is necessary to define the accompanying consumer value proposition (CVP). For example, for an Indian CPG player planning to enter the ethnic salty snacks category, the CVP was defined along the following dimensions: taste (which meant a large number of products), convenience (i.e., greater depth of distribution), price (i.e., low unit packs to cater for on-the-go consumption) and health (as defined by the use of healthy ingredients and good manufacturing practices).

Phase 2(b): decoding the value chain

Detailed assessment of the value chain helps answer the fundamental question: “What does it take to win in the chosen category?” These assessments usually involve rigorous secondary research backed by primary discussions with a diverse base of industry practitioners. Decoding the value chain thus helps create responses to critical questions on product development, manufacturing and sourcing, ideal route to market and the IT capabilities needed to create a winning proposition in the marketplace.

Normally, a sequential assessment of capabilities is made (see Figure 3) but, if a coherent business model is to be created, it is important for capabilities across the value chain to reinforce each other. This makes the entire value chain decoding process an iterative exercise.

Figure 3. Sequential approach to decoding the value chain
While decoding the optimal business model for a potential category of interest, it is imperative that no constraints on the organization’s existing capabilities are factored in. This ensures that the proposed value chain reflects an organization’s best chance of success given the market context for the identified opportunity.

Having created the winning formula for a category of interest, it is equally imperative to lay down the road map for that capabilities will be needed to translate the intent into reality. To achieve this, EY uses a proprietary maturity assessment framework that measures the maturity of each business function in the context of industry best practices. The maturity assessment exercise helps unravel the critical question for an organization: “For the identified category, where do I have gaps in capability compared with the industry standard or my stated differentiated positioning?”

The maturity assessment tool is used as a quick but structured way to evaluate each function’s readiness to take on the new responsibilities. The process involves assignment of scores to the current capability against the desired capability needed to “win” in the chosen category. Figure 4 shows an example of the go-to-market capabilities for an organization.

### Figure 4. Go-to-market capabilities needed in an organization

- **Value chain component to be examined**
- **Capabilities needed in the organization**

An organization’s existing capabilities are rarely compatible with the “asks” of the newer opportunities.
Each capability is the sum of multiple measures that are individually rated and defined based on a given industry’s best practices. Each measure is scored on a one to five rating scale.

Choosing the right combination of measures for a given capability is a must. For example, for “distribution reach,” the two measures commonly used are width and depth. “Width” measures the number of markets the category needs to “go to,” while “depth” measures how deeply within channels and outlets the market has been penetrated by the category.

The scale definitions for the width measure for (say) expensive personal care products, such as face wash, ranges from “presence in few prioritized urban markets” (lowest score) to “presence across urban markets where category is penetrated” (highest score).

However, for a product category that is equally consumed in urban and rural markets, such as toothpaste, for example, the width measure definitions will need to capture increasing width capability across both urban and rural markets.

Some of the key measures that are used across the go-to-market capability are defined in Figure 5.

---

**Figure 5. Key measures for the go-to-market capability**

<table>
<thead>
<tr>
<th>Go-to-market capability</th>
<th>Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Distribution reach</strong></td>
<td>Width: number of chosen markets into which the category needs to go</td>
</tr>
<tr>
<td></td>
<td>Depth: number of channels and outlets that need to be penetrated within</td>
</tr>
<tr>
<td></td>
<td>the chosen market</td>
</tr>
<tr>
<td><strong>Channel service capability</strong></td>
<td>Channel complexity: number of channels that contribute more than 10% of</td>
</tr>
<tr>
<td></td>
<td>sales</td>
</tr>
<tr>
<td></td>
<td>Extent to which inhouse servicing capability needs to be built</td>
</tr>
<tr>
<td></td>
<td>Level of service that needs to be delivered</td>
</tr>
<tr>
<td></td>
<td>Extent to which there is overlap with the sales channels already served</td>
</tr>
<tr>
<td><strong>Channel partner management</strong></td>
<td>Extent of channel partner specialization</td>
</tr>
<tr>
<td></td>
<td>Concentration or fragmentation in the channel partner network</td>
</tr>
<tr>
<td></td>
<td>Extent to which there is channel partner exclusivity</td>
</tr>
<tr>
<td><strong>Sales force management</strong></td>
<td>Extent to which integration is required with the existing sales force</td>
</tr>
<tr>
<td></td>
<td>Extent to which specialization in selling skills is needed</td>
</tr>
<tr>
<td><strong>Point of sale management</strong></td>
<td>Extent to which customization of the product display is needed</td>
</tr>
<tr>
<td></td>
<td>Need for point of sale visibility to drive consumer choice</td>
</tr>
<tr>
<td><strong>Inventory management capabilities</strong></td>
<td>Volume-to-weight ratio for the category</td>
</tr>
<tr>
<td></td>
<td>Extent of potential for breakage, damage or obsolescence</td>
</tr>
</tbody>
</table>
The internal maturity assessment is undertaken as part of a workshop with the organization’s functional teams. The workshop is guided by EY, providing inputs from industry best practices. The score for each measure is then compared with the industry rating and desirability levels to identify not only areas where there are capability gaps, but also what capabilities need to be focused on to create meaningful differentiation from the perspective of that value chain element. See Figure 6 for an example of how a typical output chart might look.

Normally, an organization’s existing capabilities are rarely compatible with the “asks” of the newer opportunities.

Figure 6. Sample output template from the maturity assessment

Maturity assessment summary
The value chain elements

- Each value chain element is made up of the various capabilities that the organization wants to examine.
- Each capability rating is a weighted measure of scores across each of the constituent measures.
- The importance of each constituent measure can be modified by giving them different weightage in the overall score, hence making the model applicable across different product segments.
**Phase 3. Detailed financial projection**

Detailed financial projections translate all assumptions and decisions made across CVP choices and capabilities in each value chain element into financial assessments. These projections are built over a five-year horizon and help the organization to:

- Plot what significant investments are needed as part of the entry plan
- Anticipate how many years there will be without profitability
- Gain an understanding of the likely scope for an inorganic strategy of entry

The business case includes five-year profit and loss estimations, cash flow statements and balance sheet. These assessments give a well-rounded view of the opportunity in question. The analysis also involves the creation of comprehensive cost waterfalls over the five year period and comparatives with cost waterfalls for the industry and key players. This ensures that the organization's “reasons to win,” as identified in the value chain decoding, are indeed materially different from incumbents.

Sensitivity analysis on critical assumptions, for example, change in market share (plus or minus 10%) and assessment of its resultant impact on, say, operating margins, capital expenditures schedule, help prepare a robust response to real life situations. Such analyses also pave the way for picking the right bets for an inorganic strategy.

**Diversification success**

Entry into a new product category is a critical decision for a company given the costs and risks of failure. We have seen multiple examples of companies failing to achieve the desired results after entering a new category. This is due to gaps in understanding and efforts to address distinct segments in a category with standardized product and service offerings.

Diversification success

Entry into a new product category is a critical decision for a company given the costs and risks of failure. We have seen multiple examples of companies failing to achieve the desired results after entering a new category. This is due to gaps in understanding and efforts to address distinct segments in a category with standardized product and service offerings.

Diversification success

Entry into a new product category is a critical decision for a company given the costs and risks of failure. We have seen multiple examples of companies failing to achieve the desired results after entering a new category. This is due to gaps in understanding and efforts to address distinct segments in a category with standardized product and service offerings.

Detailed assessment of the incumbents’ capabilities examined against the requirements of new operations helps an organization design the best entry option, with “long-term” imperatives and an assured growth path.

In the words of Paul Polman, CEO of Unilever Plc, “In consumer goods, strategy is only 10%; 90% of success is down to execution.”9 Clearly, a detailed execution plan is the best defense against the uncertainties of diversification.

---

Within wealth management, technologies such as mobile, social and analytics are rapidly gaining in importance, fueled by the multiplication of digital channels for doing business and the ability to apply advanced analytics for improved decision-making. Leading wealth managers are employing these advanced digital technologies to drive revenue uplift and lower their cost-to-serve.
The origins of wealth management date back to the 14th century, when the first banks across Europe started advising and managing the personal finances of wealthy families and merchants.

Since then, wealth management has developed into one of the most attractive segments within banking. Wealth managers are able to combine strong asset growth and rising profitability with low capital requirements and ample liquidity.

The wealth management industry is currently undergoing transformational change, with multiple forces converging: tighter regulation, fast-paced customer demands, market shifts, unconventional foes and disruptive technologies.

Within this evolving environment, the smart use of technology is emerging as a source of competitive advantage, enabling the digitization of the value chain and empowering key decisions around revenue and risk.

**Emerging digital technologies**

Technology has always been at the core of how wealth managers do business. In the past, wealth managers have targeted most of their technology investments at the back office, driving efficiencies and cost reductions. In terms of how wealth managers are investing in technology, three developments are emerging:

1. **Ongoing standardization of core banking platforms.** From a competitive perspective, the value of core banking technology and infrastructure is falling in significance. Core banking technologies are increasingly standardized and software providers are more plentiful. Many wealth managers are choosing to adopt rather than to customize off-the-shelf solutions.

2. **Consumer technologies crossing over into the enterprise.** Client advisors require applications and tools that allow them to stay connected with their clients and productive at all times. To support the highly mobile workforce, corporate IT is expected to develop solutions that allow mobile access to front-end tools and other enterprise content.

3. **Major technology investment required to improve the client experience.** Wealth clients use digital technology extensively in their personal lives and expect similar convenience and ease-of-use in solutions provided by their wealth managers. To satisfy these demands, wealth managers need to invest heavily in their front-end tools, both for client advisors and clients.
Applications for wealth managers | Emerging trends
--- | ---
**Mobile computing** | **Mobile-first development:** user experience is designed for mobile first, then permeated to other channels
- Increase productivity of client advisors and front-office staff through mobile access to enterprise applications
- Integrate mobile as key channel for clients to provide feature-rich services that enable wealth managers to deliver advice and engage on a personal level

**Social media** | **Relationship orientation:** tablet form factor shifting client experience from transactional focus toward stronger relationship orientation
- Use internal and external social networks to improve collaboration and knowledge sharing
- Monitor client sentiment toward products and services by screening social media sites, and respond rapidly to feedback
- Apply social media to drive customer advocacy and establish trust with customers

**Advanced analytics** | **The social CEO:** senior executives use social media to interact effectively with clients and engage within community
- Generate new insights through client profiles enriched with external data from social media to infer occurrence of major life events and promote financial products linked to these events
- Enhance risk models by applying advanced analytics to multiple data sources
- **360° client profile:** customer analytics that combines internal with external data sources to create real-time and holistic view on clients
- **People analytics:** determine new approaches to attracting and retaining talent base through advanced analytics

Source: EY analysis

For wealth managers, social media provides a vital channel to address a prevalent trust deficit, observe client sentiment and monitor reputational risks.
Technology’s evolving role in wealth management

Digital technologies, in particular, are fundamentally transforming how wealth managers serve clients and conduct their business operations. Three digital technology discontinuities are converging (see Figure 1):

► **Mobile** is developing into the preferred channel for clients across all wealth bands, owing to the “anytime, anywhere” and context-aware capabilities that mobile devices offer.

► **Social media** and collaboration tools provide wealth clients the ability to interact with peers on portfolio strategies and client advisor performance.

► Through **advanced analytics**, wealth managers can improve insight generation and decision-making by infusing data into all aspects around revenue generation, cost control and risk mitigation.

The combination of these three digital technologies will fundamentally shape client value propositions and operating models of wealth managers in the years to come.

**Mobile device innovations**

In retail banking, the mobile banking channel has firmly established its place. The mobile banking landscape is evolving quickly and is driven by constant innovation. All leading retail banks have established mobile banking apps. The functionality of these mobile banking apps are increasingly feature-rich, allowing clients to transact on the go, view graphical representations of account balances, perform secure messaging, block cards and execute basic trading functionality.

For wealth managers, mobile technologies offer new ways to interact with clients and deliver advice. Wealth managers are embracing the mobile channel, albeit slowly. Examples of wealth services offered on mobile devices are basic portfolio overviews, account details and office locators. Some players also provide transactional services such as deposits taking, quotes and trading. More advanced functionality includes the ability to open accounts, communicate with advisors, locate offices, interact through notification and alerts as well as report lost or stolen cards.

**Social media and collaboration**

The widespread adoption of social media suggests a paradigm shift in how people interact, communicate and consume information. The implications for business are profound.

For consumers, social media provides a platform to influence opinions and sentiments. A single frustrated customer can launch a campaign against a company before the business even receives a complaint.

For wealth managers, social media provides a vital channel to address a prevalent trust deficit, observe client sentiment and monitor reputational risks. Through social media, wealth managers can re-engage with customers, shore up relationships with stakeholders and improve perceptions.

One leading wealth manager has developed a professional “Facebook for independent financial experts.” The platform offers members the opportunity to meet and work with experts from other disciplines and jurisdictions, share ideas and expertise, enter into business partnerships, hire new staff and identify potential merger and acquisition targets.

**Advanced analytics and big data**

Worldwide volume of data is growing at an exponential pace, with ever-increasing variety and velocity. Data is coming from more diverse sources, both internal and external, and in widely different formats, both structured and unstructured. Data is flooding in from public, proprietary and purchased sources: chatter from social networks, web server logs, banking transactions, the content of web pages, financial market data – the list goes on.

Technologies such as Hadoop and MapReduce address many of the challenges of big data by eliminating the need for data to be stored in a structured format for processing. Instead, the data can be captured in whatever form it naturally takes and from wherever it comes from.

The idea itself of creating business value from data is nothing new. Businesses have always wanted to derive insights from information in order to make better, smarter, real-time, fact-based decisions. What has changed is how the effective use of data is increasingly turning into a competitive advantage and separating leading firms from those who lag behind.
Technology-enabled business trends to watch

To address the rapid convergence of digital technologies, leading wealth managers are building transformational programs centered around two themes:

► **Digital wealth manager**: harnessing digital technologies to engage with clients in new ways, enabling new revenue opportunities and reducing cost-to-serve. Additionally, driving operational efficiencies through marked improvements in core functions, from the front through to the back office.

► **Analytical banking**: leveraging analytics tools and technologies to generate new levels of insight, improve decision-making and establish new business opportunities.

### Digital wealth manager

Digital touch points are quickly becoming the channel of choice for wealth clients worldwide. But digital is much more than just a digitized interface to the client. At its simplest, digital encapsulates the conversion of analog into digital information. Taken as such, digital affects the entire wealth management value chain.

Wealth managers stand to benefit from improved digital capabilities in two ways: revenue uplift by means of more interactive relationships providing cross- and up-selling opportunities and substantial reduction of cost-to-serve.

We see three areas where digital can add significant value for wealth managers: digitally enhanced client relationships, increased front-office productivity and middle- and back-office operational excellence (see Figure 2).

#### Digitally enhanced client relationships

Client interactions in wealth management are still largely focused on face-to-face contact. Digital technologies will never replace face-to-face interactions wholesale. Rather, they offer the means to enrich and extend these interactions.

---

**Figure 2. Digital wealth manager: harnessing digital enablers to enhance customer engagement and achieve operational efficiencies**

<table>
<thead>
<tr>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harnessing <a href="#">digital enablers</a> to deliver a <a href="#">seamless and intuitive multichannel client experience</a> across multiple devices, with <a href="#">social media integration</a> and the ability to communicate with <a href="#">client advisors</a> for a highly personalized client journey.</td>
</tr>
</tbody>
</table>

| Digitizing the full value chain across the front, middle and back office to drive operational efficiencies. |

<table>
<thead>
<tr>
<th>Enabling technologies</th>
</tr>
</thead>
<tbody>
<tr>
<td><a href="#">Mobile computing</a></td>
</tr>
<tr>
<td><a href="#">Social media</a></td>
</tr>
<tr>
<td><a href="#">Advanced analytics</a></td>
</tr>
<tr>
<td><a href="#">Cloud computing</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digitally enhanced client relationships: enrich and extend client interactions through an enhanced multichannel client experience — with integration of social media across all channels, enabling a seamless flow from idea to analysis through to execution.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Benefits for wealth managers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue uplift through more interactive relationships providing cross- and up-selling opportunities.</td>
</tr>
</tbody>
</table>

| Substantial reduction of cost-to-serve through digital channels and digitization of value chain from front to back. |

| Ability to personalize products specific to channels. |

---

**Applications**

- **Digitally enhanced client relationships**: enrich and extend client interactions through an enhanced multichannel client experience — with integration of social media across all channels, enabling a seamless flow from idea to analysis through to execution.

- **Increased front-office productivity**: increase productivity of clients’ advisors and reduce the amount of time spent on low-value and administrative tasks through use of instant messaging, web portals, web conferencing facilities and video-calling channels.

- **Operational excellence in middle and back office**: employ digital technologies in the middle and back office to reduce overheads within the value chain and create a flexible infrastructure.

**Benefits for wealth managers**

- Revenue uplift through more interactive relationships providing cross- and up-selling opportunities.

- Substantial reduction of cost-to-serve through digital channels and digitization of value chain from front to back.

- Ability to personalize products specific to channels.

Source: EY analysis
Technology’s evolving role in wealth management

Real-time portfolio data can provide automatic-alerting and client-triggered portfolio checks to ensure ongoing suitability of investments.

The mobile channel is crucially important for wealth managers. Especially for highly mobile, entrepreneurial-minded high net worth clients, mobile is the channel of choice. Wealth managers are responding to this trend by creating mobile apps that allow clients to engage on products and services.

Supporting a single channel such as mobile will not be enough. Consumers are constantly switching between devices — conducting research on one device then converting on another one. For this reason, wealth managers need to put truly integrated multichannel access into place.

Digital channels also allow wealth managers to leverage social media connectivity. Social media platforms provide client advisors with the ability to address a larger number of clients. Also, the creation of online communities encourages clients to engage more actively with their peers on investments.

Increased front-office productivity
There is a compelling need to increase the productivity of client advisors. Client advisors may spend more than one-third of their time on non-client-facing tasks. Also, the number of clients a single client advisor serves is steadily increasing. Technology provides several opportunities to increase the productivity of client advisors and reduce the amount of time spent on low-value and administrative tasks.

Use of instant messaging, email, web portals and social networks provide a cost-effective solution to handling client queries. Web portals can be used to capture know-your-customer data and provide clients with a platform for 24/7 account management. Use of widespread web conferencing facilities and video-calling channels such as Skype can be used as a replacement for client travel and face-to-face meetings, while offering clients the flexibility of anytime, anywhere support.

Operational excellence in the middle and back office
By employing digital technology in the back and middle offices, wealth managers have the opportunity to reduce overheads within the value chain and create a flexible infrastructure that can rapidly adapt to a changing regulatory landscape.

Advanced systems for digital document management can ensure data is managed securely and efficiently across the value chain. Tools for digital client relationship management allow digital tracking of client interactions across all touch points. Modern platform and portfolio management systems offer core features, such as auto-rebalancing, that can reduce time-intensive manual processes. Real-time portfolio data can provide automatic-alerting and client-triggered portfolio checks to ensure ongoing suitability of investments.

Analytical banking
Wealth managers have access to enormous volumes of valuable data, ranging from massive amounts of market and financial data to their own store of client data.

With the aim of gaining a distinct advantage over the competition, wealth managers are increasingly investing into their ability to derive more tangible value from their data. Thanks to advanced analytics, wealth managers are able to do so in two ways: generating new insights and improving decision-making (see Figure 3).

Generating new insights
There are many ways for wealth managers to create value-adding insights from their volumes of proprietary data. Traditionally, most players have focused on their client data to identify revenue opportunities. Some players are applying similar techniques to their employee data, with the goal of utilizing their people assets in more productive ways.

One global retail bank analyzes the transactions of its customers to infer the occurrence of major life events, such as marriage or a new job. The bank then uses this information to promote high-value financial products that are strongly linked to these major life events. Another bank enriches a 360-degree view of its clients with external data from social media to determine a range of suitable products for the client. The front office is then equipped to offer these products to the client at the next opportunity.

Improved decision-making
Every single major decision to drive revenue, to control costs or to mitigate risks can be infused with data and analytics.

In the past, wealth managers have heavily invested into information systems and warehouses designed to support management in steering the business. However, many of these management information systems fail to deliver the insights required to make effective decisions. Big data has the ability to improve management decision-making
One bank enriches a 360-degree view of its clients with external data from social media to determine a range of suitable products for the client.

**Figure 3. Analytical banking: generating new insights from existing data assets and improving decision-making**

### Definition

- Harnessing large, dynamic and disparate volumes of data created by people, tools and machines to derive real-time and value-adding business insights that relate to clients, risk, performance and productivity
- Improving decision-making and identifying new business opportunities by monetizing data assets

### Enabling technologies

- Mobile computing
- Social media
- Advanced analytics
- Cloud computing

### Applications

- **360° client profiles**: create a holistic view of clients by enriching internal data with external data from social media sources to generate next-product-to-buy scenarios
- **People analytics**: avoid unwanted attrition by analyzing variables to determine attrition likelihood (e.g., compensation, performance ratings, supervisor skill and time in role) and identifying concrete measures to improve retention of highly skilled professionals

### Benefits for wealth managers

- Ability to generate new insights on clients by means of holistic client profiles
- Improved decision-making by enriching management information systems with external data sources
- New revenue streams by making data available for a price

---

**In two ways:** by enriching data from management information systems with intuitive graphic elements and, secondly, by integrating data from external systems such as financial markets, regulators and other stakeholders. The results are an accessible, uniform, real- or near real-time view of operations that allows different departments to speak a common language and base their decisions on the same facts.

### The evolving role of IT

With the onset of digital disruption in wealth management, the role of IT must change as well. We expect that the role of IT will further evolve, and that it will take on a much more leading role in driving business change.

EY examines the role and contribution of IT within wealth management in its annual *IT in Wealth Management Survey*. The survey analyzes the relationship between IT spend and business performance.

---

TURQUALITY®: an inspirational emerging market growth story

As emerging markets struggle to maintain their high growth rates, attested models become increasingly important for defining targeted expenditures with high return on investments. For this reason, Turkey’s TURQUALITY® story is an interesting one to follow, from which enlightening lessons could be derived.
Authors

Bülent Ozan
Executive Director, Advisory Services, EY, Turkey

Deniz Turhan
Senior Manager, Advisory Services, EY, Turkey

İmge Su Aral
Senior Consultant, Advisory Services, EY, Turkey
Even though emerging markets attract the attention of multinational corporations in an ever-increasing manner, they are no longer acknowledged as merely marketplaces in the international scene. Emerging markets have long been nurturing companies that strive to be “local multinationals,” as their emerging brands gain regional acclaim through exports. Local demand in these markets is hence fortified through regional demand, making it possible for local companies to expand their practices more and more to neighboring countries and beyond. In this sense, price advantage has ceased to be the sole competitive edge. In order to keep up with the competition, companies from emerging markets feel the urge to invest in building sustainable brands, and that’s where the Government has been stepping in for Turkey over the last 10 years.

What is TURQUALITY®?
Aiming to reach a US$500b export volume by 2023, the Turkish Government has been investing in supporting R&D, innovation, design and branding to boost exports through a subsidy program called TURQUALITY®. Considering Turkey’s export volume was only a little over US$63b in 2004, when the program was first launched, it’s clear that the Government has set itself a challenging goal that will signify a dramatic change. As the first and still the only state-subsidized brand-building program, and unlike other conventional export subsidies, TURQUALITY® focuses particularly on increasing branded exports. The goal is to ameliorate the perception of goods made in Turkey by means of improving and enhancing the key processes of program-accredited companies.

In order to make sure that efforts are directed into the right places, companies that apply for this subsidy undergo a series of evaluations, whereby their capabilities are assessed by authorized consulting firms according to industry-specific maturity models. This meticulously built evaluation process ensures the subsidies are only offered to the best and the brightest. Companies with underperforming functionalities are encouraged to apply again after a given amount of time, with the promise to invest in their lacking qualities and capabilities. TURQUALITY® is thus positioned to inspire development among companies, even if some may not yet be entitled to receive financial support.

Executive training for the managerial cadres of program-accredited companies is also incentivizing companies toward further progress. This training is custom-made for program participants to improve their skills and vision for the business. Mimicking executive MBA formats, substantial business world issues, ranging from case studies to change management, are covered within the TURQUALITY® Executive Development Program. This ensures the executives stay on top of global trends. In addition to this training, regular “Vision Seminars” are held each year for the same audience, featuring prominent academics and world-renowned business gurus.

As the first and still the only state-subsidized brand-building program, and unlike other conventional export subsidies, TURQUALITY® focuses particularly on increasing branded exports.

A meticulously built evaluation process ensures the subsidies are only offered to the best and the brightest.

Another imperative for companies capitalizing on this subsidy is the involvement of an authorized consulting firm to assist in the preparation of strategic business plans and development road maps. During the process, the Ministry of Economy provides financial aid to the companies as they receive the necessary coaching and consulting services.

**EY’s role in making it happen**
EY has been appointed by Turkey’s Ministry of Economy as an authorized management consultant to help companies realize their potential in the international arena. The fundamental presence of consulting firms throughout the process makes sure that TURQUALITY® brands receive the best international consulting support there is. EY utilizes its internationally proven methodologies and experience from a vast number of engagements among a wide range of industries while designing tailor-made solutions for program-accredited companies (see Figure 1).

Cooperation with the Ministry does not end solely with the program management, EY also makes suggestions regarding not
only how the program can be improved, but also how to evaluate the performance of subsidized companies. Starting with the pre-screening to determine companies’ eligibility for the support program, EY initially runs diagnostic projects with applicants that involve a maturity assessment, conducted within a limited time frame, for all of the applying company’s functions. Data provided by the applicants regarding processes and operations are examined carefully, while company executives are interrogated and the company premises are inspected in person to understand the maturity levels.

The third role EY has undertaken concerns providing consulting services for program-accredited companies. Once the companies are accepted into the program, they are entitled to receive consulting support while building their strategic business plans. All accredited companies are also obliged to be examined by an authorized consulting firm to identify potential development areas across business functions. These potential development areas are subsequently conceptualized in progressive projects and then prioritized before being put into a development road map for the following five years of subsidy designation. Continuing involvement by an authorized consulting firm in the execution of the projects prescribed in the road maps also benefits the Ministry when making its periodic company evaluations.

The TURQUALITY® program requires full scrutiny of the business functions of program-accredited companies, including: corporate strategy, finance, brand management, supply chain management, sales and operations, human resources, information systems and product development. EY uses recognized and internationally proven diagnostic and assessment methodologies to assist in carrying out detailed qualitative and quantitative analysis. Recommendations are formulated for all the functions that have been examined, from supply chain mechanisms and systems, sales and marketing structures through to support functions including human resources, financial management and information technologies. Data provided by the companies are first analyzed thoroughly and then compared with best-case practices in order to build up developmental recommendations. By deep diving into the issues affecting operational efficiencies and brand image, EY not only gets to know the companies up close during this diagnostic phase, but also supports them in bringing these developmental projects to life.

The types of companies qualifying for the program varies considerably, from world-renowned players such as glassware giant Paşabahçe and electronics manufacturer Vestel to smaller companies with substantial potential. EY is involved in helping brands from numerous industries of different sizes with various complexities. An essential part of these projects requires working together with the companies on all functionalities from branding to finance, providing “arm’s length” support in their developmental journey and in times of turmoil.

Within the scope of the TURQUALITY® program, over the last two years, EY has helped more than 30 brands. Industries such as consumer durables, automotive, industrial products, consumer goods and ready-to-wear clothing have been among those examined in depth to help build strategic business plans and development road maps. Almost as many industries were pre-screened as part of the primary evaluation for program accreditation.
Implications for the market
So far, numerous industries have profited from this program, in particular, ready-to-wear clothing, processed agricultural goods and chemicals (see Figure 2). As of the end of 2014, 111 brands from 100 different companies have received TURQUALITY® support, whereas 55 brands from 54 different companies benefited from the Branding Program (a sub-branch of TURQUALITY® that provides limited financial aid for companies with lower maturity levels). The overall effect has been an increase in the export of value-added goods. The average price for overall exports from Turkey has increased from US$1.16 in 2009 to US$1.58 in 2012 (see Figure 3), whereas the average price for program-accredited companies reached US$3.28 per kilo, proving how the efforts put into innovation and branding have paid off.2,3


Similarly, applications for copyrights and patents have taken an upward trend and have increased by more than 30% between the years 2010 and 2012. The same goes for exports in subsidized industries, where an overall compound annual growth rate of more than 7% has been observed between the years 2006 and 2013.4 (see Figure 4).

Even though the numbers speak for themselves, it is worthwhile noting that the path to growth for emerging markets must encompass investment in brands. Increase in exports in itself is not enough to create the leap that emerging markets strive for, since price advantage is no longer a desired competitive edge. Instead, the value per unit of exports should be brought as high as possible, and building up brand value along with investing in research and development are among the most sustainable ways of accomplishing this.

An inspirational story
As emerging markets struggle to maintain their high growth rates, attested models become more and more important for designating targeted expenditures with high return on investments. What’s more, the individual efforts of companies are no longer considered to be sufficient for the overall development of a nation.

What emerging markets need is the establishment of national development agendas that would leverage these individual potentials and put them on a rigorous and systematic path, leading to

---

steady and sustainable improvements. Hence, this inspirational growth story stands as a solid model for other emerging markets, where state subsidies doubled with business know-how through consultancy partnerships reveal promising results.

Turkey’s TURQUALITY® story is an interesting one to follow, from which enlightening lessons could be derived. Countries that believe in the power of branding and design can adapt the program to their own environment and try to give their export performance a push. EY is always there to support these countries and help them reveal their hidden potential, thereby building a better working world.

This inspirational growth story stands as a solid model for other emerging markets, where state subsidies doubled with business know-how through consultancy partnerships reveal promising results.
Air Serbia: the new wings of Europe

In an interview with Dane Kondić, CEO of Air Serbia, we learn how, following an equity partnership with Etihad Airways, support from the Serbian Government and a new management team, the airline has been renamed, reborn and is working toward profitability in the space of one year. It is also set to contribute US$700m to the Serbian economy in 2014, which is about 1.5% of the country’s gross domestic product.
Just one year ago, Serbia’s flag carrier, Jat Airways, was in a critical condition. One of the world’s oldest operating airlines, Jat had been a solidly based business up until the 1990s. However, the violent breakup of Yugoslavia and international sanctions against Serbia led to a catastrophic loss of market share, from which it struggled to recover.

During the following decades, the company’s fleet and network of routes kept shrinking, long-haul flights were abandoned and the operations were in constant loss. By 2013, what had once been one of the world’s top 30 carriers was reduced to 5 operational aircraft. Its financial position was completely unsustainable. The end seemed to be approaching for the debt-burdened, loss-making airline.

However, through an equity partnership with Etihad Airways, the continuous support of the Serbian Government and a new, effective management team, the airline has been renamed, reborn and is working toward profitability in just one short year. “Our immediate goal was to stabilize the company and to refleet, retrain, resize, rebrand. That is a four- or five-year journey for many airlines,” says Air Serbia CEO Dane Kondić. “With a talented management team, a clear plan and lots of hard work, we have achieved this in 12 months, and this is a signal of how we intend to go forward.”

The Government of Serbia really wanted and needed an experienced aviation operator to partner with them. That’s what Etihad Airways brought to the table: industry expertise and know-how.

Etihad Airways’ investment

On 1 August 2013, Etihad Airways acquired 49% of the company from the Serbian Government in a deal worth US$40m. As part of the agreement, the airline was renamed Air Serbia, and the Government cleared all of Jat Airways’ debts so the airline could, from a financial perspective, start as if from the beginning.

Dane Kondić worked as part of the team with Etihad Airways and the Government of Serbia on the deal and, once it was finalized, was appointed by the Government as CEO.

He explains there are sound business reasons for believing a Serbian-based airline can be hugely successful, including the airline’s location. “Belgrade has always been at the crossroads of this region. So geographically, we’re well positioned to develop a network that connects the region and makes sense for travelers,” he says. Serbia offers all the advantages of an emerging market, but one well positioned to serve many more-developed economies.

“We have a competitive cost base here that works well for the airline and is more attractive than many near countries in the EU,” says Mr. Kondić. “While the economy of the West Balkans continues to lag behind Europe, there is steady and tangible improvement. And the growth here will be far greater than that in the mature markets of Europe.”
On life support
Etihad Airways clearly saw sound business reasons for investing in the ailing Jat Airways. But that does not diminish the work that needed to be done. “The single biggest challenge was turning around a company that had been loss-making over many years, and putting it on the road to profitability,” explains Mr. Kondić. “There was no investment for the previous 30 years. The average age of the fleet was around 25 years. Infrastructure was obsolete. When you add the cost of all of that on top of the debt burden, the airline was basically on life support.”

Added to this were the difficulties of operating in an unfamiliar emerging market. “Having to right size an organization while getting to grips with the laws of the country obviously created challenges for us,” says Mr. Kondić. “We had to work out practical ways of managing these issues.”

What Etihad Airways brought to the table
Given the scale of the task, it was clear that the airline needed serious help if it was to survive. “The Government of Serbia really wanted and needed an experienced aviation operator to partner with them,” Mr. Kondić explains. “That’s what Etihad Airways brought to the table. It brought industry expertise and know-how that the Government didn’t have.”

To help the airline access that expertise, a number of senior executives at Etihad Airways, including the President and Chief Executive Officer James Hogan and the Chief Financial Officer James Rigney now sit on Air Serbia’s Supervisory
Board. “These leaders have already given incredible know-how and input into the things that we need to be thinking about and the direction that we need to be going,” says Mr. Kondić. “We can often sense check and bounce things off people who have been there and done it. They are as passionate about our success as we are, and we thank them from our hearts for that.”

Etihad Airways recently launched Etihad Airways Partners, which includes airberlin, Air Seychelles, Jet Airways, Air Serbia and Darwin Airline (operating as Etihad Regional). Joining Etihad Airways Partners offers Air Serbia many benefits, including access to vitally important systems and data, as well as...
to the all-important advantages of scale.

“The airline industry is a scale business. The single biggest challenge for all airlines everywhere is cost,” explains Mr. Kondić. “And this is what Etihad has brought to the table. It’s a collection of like-minded airlines, looking for practical and meaningful ways of driving synergy across the business. Things such as purchasing aircraft, fuel and other big-ticket items. Through increased purchase volumes, we can drive discounts and get better value.”

Connecting the network

Perhaps the most immediately visible change for the airline was the arrival of newer aircraft. Jat Airways’ old fleet of Boeing 737-300s was immediately replaced by newer, leased Airbus A319 and A320 series aircraft. This required retraining for all 160 of the airline’s pilots, which was a sizeable undertaking in itself.

More fundamentally, Air Serbia began to follow a new business model. Because Serbia is less affluent than many of its neighbors, the airline needed to serve a broader geographic spread of customers if it was to grow.

“For the first half of 2014, we carried 944,000 passengers, representing growth of 70% over the same period in 2013. That growth has come from simply connecting the network – having a network where people can transfer with ease,” says Mr. Kondić. “It’s come from the person in Athens who is traveling to Dusseldorf, or the Lebanese family traveling from Amsterdam to Beirut. Compared with many other European airports, Belgrade airport is an amazingly easy and convenient place to transfer. From the furthermost gate at one end to the other is a 10-minute walk.

“We’re not there yet, but we’re certainly making progress in being a good alternative to an airport such as, say, Vienna, which has always positioned itself as a transfer airport for people flying into Central and Eastern Europe.”

We’re lifting this business out of the planned economy and trying to fit it into global best practice and international financial reporting systems.

Rebuilding the brand

Giving Air Serbia its new name was the first step in rebuilding the airline’s image. That work will continue with the brand campaign that is underway. And although that campaign will have an external focus, its internal impact is just as important for the airline.

“It will have a halo effect, creating a feel-good factor that has not existed here for a long time,” says Mr. Kondić. “And that’s going to give everybody a lift, just to feel part of an airline that is turning itself around, that is moving from loss to profit, and that is also part of the growth story and renaissance of Serbia.

“All these things are feel-good factors that remind me of something that someone once said. When asked what the most important part of their business is, people typically say the customer. But this person said, ‘My people – because if my people are happy, they will always give good service.’ And I very much subscribe to that.”
Focusing on people
A change in management style has helped Air Serbia’s staff to once again feel engaged with the business. And this change in style has been driven from the very top of the organization.

“I lead by example, and I expect everybody to follow my example,” says Mr. Kondić. “No task is too difficult for me to go out and do. If you can go out and see a piece of paper on the ground and pick it up, then what example does it send to everybody else? I try to be that sort of a person every day because I know that makes the difference.”

The more engaged style has helped the new management to differentiate itself from the old regime, which Mr. Kondić sees as having been stuck in the ways of the old: “It was run very much how the former country was run,” he explains. “It had a very hierarchical management, and the leadership was disengaged from the people.”

Air Serbia’s leadership team has worked hard to connect with staff members. And this has helped staff members to see their role in the leadership’s vision for the airline.

“If you engage people as people – walk around the floor and talk to them, ask them what’s happening in their life – you make a huge difference,” says Mr. Kondić. “This business is all about people. If you know people, you know how to run this business.

“If you give people a good enough reason why they should do something, they will always, always jump on the bus with you willingly and head in that direction. But they won’t if you give them information, and don’t share the vision and don’t explain what we stand for.”

Raising customer service
During the decades of decline, the airline’s levels of customer service were also badly hit. Unlike with the fleet, this was not something that could be quickly solved. How was Air Serbia able to raise its service levels?

“By investing in training, training and training,” explains Mr. Kondić. “It’s been a challenge because customer centricity has not been top of mind, but we’ve tapped into the fact that Serbs are enormously hospitable people. We’ve tried to mesh that with what it means to deliver good customer service.”

These efforts have clearly made a big difference. But further improvements are still required.

“We’ve certainly made our customer service in the air better,” says Mr. Kondić. “Improvements on the ground will come as we start to address people’s pay, rewards, remuneration, conditions and accountabilities – all those things that were not previously seen as important.”

Delivering broader benefits
The benefits of success will go far beyond the airline itself. Independent research company Oxford Economics undertook a study to calculate the value for Serbia of Etihad Airways’ investment in the airline. Its report suggested that Air Serbia would contribute approximately US$700m to the economy in 2014, which is about 1.5% of the country’s gross domestic product.
“Directly and indirectly, over 20,000 people depend on this airline,” says Mr. Kondić. “That is a pretty significant number in a country that has, unfortunately, a very high unemployment rate.”

“For Serbia to have a business that is growing so successfully and that has employed more than 300 people, sends a positive signal to all Serbians. We are doing this for Serbia, and we will never forget that.

“This enterprise and project between these two stakeholders – the Serbian Government and Etihad Airways – is a great advertisement for what the Government is capable of doing. Air Serbia is demonstrating that foreign direct investment into Serbia works. And if there is more investment, there will be more jobs, and that can only be a good thing.”

Why operational flexibility offers a new frontier for the financial services sector

Operational flexibility is the key if traditional financial services institutions are to win back disillusioned customers and beat off the challenge of online rivals. How can banks and insurance companies transform their operations in order to make them sufficiently agile and nimble to tackle these new challenges and uncertainties?
There was a time when financial services companies enjoyed all the benefits of a stable business environment and customer loyalty. Then came the financial crisis, which undermined confidence in traditional providers, and the rise of disruptive technologies, which led to a surge in internet adoption and a new-found trust in online competitors. The result is an industry facing many uncertainties.

Fickle customers
Banks and insurance companies have spent the past six years or so focusing on how to manage the fallout from the financial crisis and the new regulatory environment that it spawned. Meanwhile, dissatisfaction and mistrust was growing among customers, whose confidence had been severely eroded by the credit crunch. Add to the mix a number of megatrends, including the emergence of a more intelligent and knowledgeable breed of customer, with higher expectations, who demanded more personalized and tailor-made services, and you have a financial services sector that needs to put the customer back at the core of its business if it is to thrive.

Disruptive technology
Technological innovation is a hot topic these days, with new phenomena such as mobile technology, social media and cloud computing changing the way we do business. While most agree that such innovations are a force for good and a driver of growth and development, they only benefit those organizations that have the capacity to harness their power. To those that do not, they are very much a double-edged sword, i.e., they have as many disadvantages as they do advantages.

Non-traditional competitors
The other threat to the old order comes in the shape of a range of non-traditional players. Internet companies and big shopping malls, or franchises, are starting to tentatively enter the financial services industry. Although they face potential regulatory challenges, these new entrants, armed with new business models, vast amounts of customer data and revolutionary distribution networks, are making aggressive inroads into the market.

In the face of such challenges, we have to ask ourselves whether traditional financial institutions are responding fast enough.

Flexibility is the key to the future
How can we respond faster? How can banks and insurance companies transform their operations in order to make them sufficiently agile and nimble to tackle these new challenges and uncertainties? Many financial institutions have already invested in channel and product innovations to enhance their customer insights and accelerate their “speed to market.” However, in addition to front-office (sales and distribution) and middle-office (product development) shake-ups, C-suite executives must transform their back-office operations, which are usually labor- and cost-intensive and involve a high level of customer interaction.

Learn from the manufacturing industry
Before we explore operational transformation solutions for the financial services business, we would be wise to learn some lessons from the way the manufacturing industry has adapted to survive over the years.

As can be seen from Figure 1, the operational transformation agenda shifted its focus as circumstances changed.

The Industrial Revolution ushered in an era of scientific management. Manufacturers focused on production, efficiency and costs, while standardized products dominated the market. Two hundred years later, industry entered the lean production era. During this period, just-in-time and computer-aided design (CAD) techniques came to the fore and quality became a priority on the management agenda. With the onset of the 21st century and the boom in web technology, mass customization became the major objective. The manufacturing industry leveraged innovative operational concepts, such as flexible production, to strike a balance between customization and mass production. Particularly in recent years, technological innovation has enabled a high level of operational flexibility in multiple industries and businesses, allowing them to achieve the objective of mass customization.
Financial institutions should be able to respond quickly to changing market trends by capitalizing on new technologies to produce satisfactory products and services at a relatively low cost.

Figure 1. How operational transformation has shifted over time

<table>
<thead>
<tr>
<th>Cost focus</th>
<th>Quality focus</th>
<th>Customization focus</th>
</tr>
</thead>
</table>
| **Early concepts**  
1776–1880:  
- Labor specialization (Smith, Babbage)  
- Standardized parts (Whitney)  
**Scientific management era**  
1880–1910:  
- Gantt Chart (Gantt)  
- Motion and time studies (Gilbreth)  
- Process analysis (Taylor)  
- Queuing theory (Erlang)  
**Mass production era**  
1910–80:  
- Moving assembly line (Ford, Sorensen)  
- Statistical sampling (Shewhart)  
- Economic order quantity (Harris)  
- Linear programming, PERT and CPM (DuPont)  
- Material requirements planning  
**Lean production era**  
1980–95:  
- Just in time  
- Computer-aided design  
- Electronic data interchange  
- Total quality management  
- Baldridge award  
- Empowerment  
- Kanbans  
**Mass customization era**  
1995–2010:  
- Globalization  
- Internet and eCommerce  
- Enterprise resource planning  
- Learning organization  
- International quality standards  
- Finite scheduling  
- Supply chain management  
- Mass customization  
- Build to order  

What is operational flexibility?

In his book *Operations rules: delivering customer value through flexible operations*, David Simchi-Levi, Professor of Engineering Systems at Massachusetts Institute of Technology, defined flexibility as “the ability to respond to change without increasing operational and supply chain costs and with little or no delay in response time.” My own view would be that, if we cannot precisely forecast the future (i.e., customer demands, competitor activities or disruptive technologies), we must make ourselves flexible enough to respond to possible changes.

It is obvious that companies need to be flexible enough to respond to a volatile environment. In a survey conducted by EY, we found that: “Overall, by achieving a high degree of flexibility, high performers are far ahead in having a broad product or service portfolio, decentralizing decision-making, enhancing the skills of their workforce to utilize this freedom and using technology. Low performers, by contrast, seem trapped in a rigid and hostile ecosystem.”

How EY helps organizations tackle operational flexibility

EY offers a comprehensive and practical methodology to help financial institutions adopt a more flexible operational model. We apply business-scenario analysis tools to help our clients forecast possible changes in customer requirements and optimize the entire value chain of the industry. We also help our clients to identify their core competency, the elements of their business that are redundant and the ways in which they can develop their potential to be flexible so that they can respond smartly to this volatile world and, more importantly, respond speedily.

Flexible trend

Figure 2 shows a straightforward example that illustrates the concept of flexible production, or what we call operational flexibility:

- A traditional operations system, whether an assembly line layout in the manufacturing industry or a value chain in a service industry, exhibits the following features:
  - One-way traffic
  - A sequencing arrangement (physical or virtual)
  - A standardized but rigid process
  - A very specialized division of tasks
  - Suitable for mass production

A flexible operational layout, on the other hand, as shown in Figure 3, differs in a number of ways:

- It is arranged in a “U” shape.
- The process can move back and forth.
- Operators have multiple skills so they can back each other up.
- Service or production can be customized based on demand.

---

If we cannot precisely forecast the future (i.e., customer demands, competitor activities or disruptive technologies), we must make ourselves flexible enough to respond to possible changes.

Figure 2. Traditional operations for the manufacturing industry

Figure 3. Flexible operations for the manufacturing industry
Implications for the financial services industry

When it comes to the financial services industry, the need for flexible operation comes from the changing preferences of the markets as well. Our customers are moving from being passive product buyers to active demand creators, which implies the arrival of the mass customization era. This means that customers need convenience, transparency and flexibility. Financial institutions should be able to respond quickly to changing market trends by capitalizing on new technologies to produce satisfactory products and services at a relatively low cost.

We should also acknowledge that the financial services industry is in a highly regulated business environment. Many financial institutions, including banks and insurance companies, have used similar operational transformation concepts over the past few years, such as Six Sigma and business process re-engineering. However, facing the new uncertainties already mentioned in this article, some leading financial institutions are falling into “the trap of efficiency and quality.”

Henk W. Volberda, the guru of flexible management theory, explained that, when enterprises over-focus on efficiency and quality, they may well lose the flexibility to respond to future challenges. A zero-defect culture, too many KPIs, strict internal policies or highly centralized decision-making can cause employees to become excessively cautious. The fear of making mistakes can become so ingrained that it inhibits an enterprise’s ability to provide customer-oriented services or products.

It is no surprise to find that traditional, rigid financial institutions are falling into this trap. Recently, new technologies, new media and new customer segments have made the situation even more complicated. If a traditional financial business cannot increase the level of flexibility in its operation to a point where it can satisfy its more demanding customers, it will become vulnerable in this mass-customization era. Fortunately, the more innovative banks and insurance companies are investing money and effort in building more flexible future operating models by exploiting technology and decentralizing decision-making power. Some compelling examples are shown in Figure 4.

As can be seen from Figure 4, a flexible operation is a must for traditional financial institutions. A broad description of a flexible operation might include features such as: externalized operation, flat organization, an onshore arranged shared service center, multimedia backed business and employees with diversified skills.

Where can we make changes?

Nowadays, the world’s leading players in the financial services industry are embracing innovative technology and exploring new operating models to strike a balance between risk control, cost reduction and customer experience. Certainly, the journey to a flexible operating model is not a smooth one for most traditional banks and insurance companies. They need to be committed to the end goal to facilitate and manage the key changes necessary:

1. Let the customer get involved and engaged (this is the most important change)
2. Build a flat organization to encourage innovation
3. Delegate decision-making powers to customer-facing employees
4. Train frontline staff to help them gain diversified skills and credibility
5. Break rigid business processes to fit different customer-service scenarios
6. Take advantage of new technologies

Figure 4. Increasing flexible operation in the insurance sector

<table>
<thead>
<tr>
<th>Operation process based on case classification</th>
<th>Reduce case hand-off time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case types:</td>
<td></td>
</tr>
<tr>
<td>► Road traffic accident (responsible versus non-responsible)</td>
<td></td>
</tr>
<tr>
<td>► Broken glasses</td>
<td>► Assign one claim representative in charge</td>
</tr>
<tr>
<td>► Total loss of vehicle or fire</td>
<td>► Add in process evaluation</td>
</tr>
<tr>
<td>► Theft</td>
<td>► Reduce case circulation among employees</td>
</tr>
<tr>
<td>► Catastrophe</td>
<td>► Front-line staff have diversified skills and appropriate decision power</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Scenario oriented rather than process oriented</th>
<th>Support client trigger process</th>
</tr>
</thead>
<tbody>
<tr>
<td>► Design claim operations based on scenarios that include: FNOL, negotiation, payment, settlement, etc.</td>
<td></td>
</tr>
<tr>
<td>► Trigger task at any process node</td>
<td>► Self-service: garage selection</td>
</tr>
<tr>
<td>► Reduce Interdependency among tasks</td>
<td>► Self-service: investigation appointment</td>
</tr>
</tbody>
</table>

---

Figure 4. Increasing flexible operation in the insurance sector

- Operation process based on case classification
  - Case types:
    - Road traffic accident (responsible versus non-responsible)
    - Broken glasses
    - Total loss of vehicle or fire
    - Theft
    - Catastrophe
- Reduce case hand-off time
  - Assign one claim representative in charge
  - Add in process evaluation
  - Reduce case circulation among employees
  - Front-line staff have diversified skills and appropriate decision power

- Scenario oriented rather than process oriented
  - Design claim operations based on scenarios that include: FNOL, negotiation, payment, settlement, etc.
  - Trigger task at any process node
  - Reduce Interdependency among tasks
- Support client trigger process
  - Self-service: garage selection
  - Self-service: investigation appointment
  - Self-service: vehicle rental plan selection
  - Self-service: vehicle collection appointment
  - Self-service: payment appointment

---

If a traditional financial business cannot increase the level of flexibility in its operation to a point where it can satisfy its more demanding customers, it will become vulnerable in this mass-customization era.

All the above require financial institutions to develop flexibility as a core organizational competency, thus allowing them to make the best of these valuable innovations rather than being defeated by them. 

Attitude is key. Financial services companies need to see the changing operational landscape as a huge opportunity. By combining the traditional values and practices that have served them so well with new technologies and business processes, and by engaging customers to ensure products and services meet the demands of the modern customer, these organizations can go a long way toward ensuring they survive and prosper in this brave new world.

### How flexible operations are being used across industries

Following its emergence in the car manufacturing industry, the concept of flexibility has recently been embraced by service industries:

<table>
<thead>
<tr>
<th>Industry or domain</th>
<th>Description of flexible practice</th>
<th>Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail</td>
<td>Provide the opportunity to shop at any time and in any location via various channels</td>
<td>Time schedule flexibility, location flexibility</td>
</tr>
<tr>
<td>Travel agency</td>
<td>Customized itinerary, time schedule and means of transportation</td>
<td>Itinerary flexibility, time schedule flexibility</td>
</tr>
<tr>
<td>Training institution</td>
<td>Customized course cost, contents and training methods</td>
<td>Batch course flexibility, training pattern flexibility</td>
</tr>
<tr>
<td>Car rental company</td>
<td>Provide customers with the most suitable vehicles at preferred locations and times</td>
<td>Time schedule flexibility, location flexibility</td>
</tr>
<tr>
<td>Health care</td>
<td>Provide emergency health care services in addition to routine appointments</td>
<td>Time schedule flexibility, service flexibility</td>
</tr>
<tr>
<td>School</td>
<td>Change, increase or reduce the difficulty of courses</td>
<td>Teaching plan flexibility</td>
</tr>
<tr>
<td>Internet company</td>
<td>Provide a multiservice access strategy</td>
<td>Product flexibility, IT system flexibility</td>
</tr>
</tbody>
</table>
In a global business environment, the increased individuality of customer demands adds external pressure for companies. On the other hand, growing competition creates the need for cost-cutting programs. The conflict between external variance and internal standardization can be solved by approaches such as modular product design. A proven four-phase approach that enables the modularization of product architectures is examined in this article.
Authors

Jana Golfmann
Consultant, Product Life Cycle Management Team, EY, Germany

Dr. Thorsten Lammers
Senior Consultant, Product Life Cycle Management Team, EY, Germany
Any customer can have a car painted any color that he wants so long as it is black.” With the goal of making cars more affordable, Henry Ford introduced the production assembly line of the Ford Model T in 1908. By applying a production system based on standardized processes, the costs per unit could be reduced significantly. If different colors had been offered, it would have meant a break in the assembly line, leading to longer lead times, the involvement of more staff, higher error rates and, ultimately, to higher costs.

A century later, the global environment for manufacturing companies has changed significantly, bringing with it a new set of challenges and risks. As a result of globalization, companies have to deal not only with increasing worldwide competition, but also with increasingly specific customer demands. While globalized markets force competing businesses to cut their costs, the demand for individuality leads to a higher variety of products being offered on the market as well as shorter product life cycles. The emerging conflict between internal cost pressure and the external need for product variety has become a strategic factor in today’s manufacturing world.

Strategies that allow for both a greater variety of products and a manageable level of internal variety must be implemented in order to solve this conflict. Solution methodologies logically revolve around the product and its composition as the central elements of the conflict.

What are modular product architectures?

Modular product architectures are a proven concept and one of the key aspects of developing an integrated product life cycle management (PLM) strategy. They facilitate the standardization of product components while still allowing for a huge variety of products on the market.

Products with modular architectures can be easily broken down into a number of standardized building blocks, which can be rearranged to create different configurations and variants. In this way, whole product families can be formed based on the same limited number of modules and the internal complexity can be kept to a viable level.

The product architecture maps the functions of a product (the functional structure) to the physical components of the product (the product structure). The functional structure breaks down a product’s main function into a hierarchical network of subfunctions and, hence, translates customer requirements to a functional view for product engineering. Each function reflects the verbalization of a product task and is inherently abstract and solution-neutral. For example, the main function of a pocket flashlight could be “to emit light,” while two subfunctions could be “to create light” and “to store energy.” The product structure, on the other hand, reflects the hierarchical composition of the physical product components.

The benefits and risks of modular product architectures

The modularity of the product architecture is determined by the level of functional independence of the product components as well as by the level of interface standardization between different elements of the product structure. The more product components needed to fulfill a certain function and the more functions fulfilled by a certain product component, the more integral the product architecture will be.

On the contrary, biunique relations between functions and product components are characteristic of a modular product architecture. Product architectures can show any degree of modularity between these two theoretical extremes of full modularity and full integrality. The increased functional independence and

5. U. Lindemann, “Strategies that allow for both a greater variety of products and a manageable level of internal variety must be implemented in order to solve this conflict. Solution methodologies logically revolve around the product and its composition as the central elements of the conflict.”
7. J. Gipfert, Modulare Produktentwicklung, (Books on Demand, 2009).
standardization of interfaces in modular product architectures creates multiple benefits for the manufacturer. These include reduced complexity and increased interchangeability in engineering, a lower rate of production errors and reduced component variety in manufacturing.

Despite these multifaceted advantages, potential risks, such as high implementation costs and product-specific technical restrictions, should be analyzed. The risks also provide good reason to pursue an optimal rather than maximal degree of modularity, depending on the individual characteristics of the focal company.6

A four-phased approach for the modularization of product architectures

Defining the modules within the engineering department can provide benefits across all the phases of a product’s life. The implications for engineering are manifold and require the integration of many different departments.7 To support engineering-heavy industries, we have developed a comprehensive and resource-friendly method, based on previous approaches, that enables the modularization of product architectures in four phases8 (see Figure 1).

Figure 1. The four phases of the modular product architecture approach
Modular product design: reducing complexity, increasing efficacy

Phase 1. Goal setting

Clarify the objectives of product modularization

Modularity can be used as a measure to support technical requirements and strategic objectives. In phase 1, the main priority is to identify the company’s individual aims for pursuing modularization. Company-wide support needs to be generated for the creation of universal and sustainable modules. Top management should actively encourage and be committed to the modularization efforts.

Include product requirements within the engineering process

Companies focus on exceptional technologies to give their product a unique selling proposition. However, such technologies do not automatically guarantee market success and, in many cases, these products end up as “shelf-warmers.” Often, the reason for this is an incomplete clarification of the product requirements. Therefore, the focus of the second step of our method is to create a list of product requirements that reflect customer needs and for which the market dynamics should also be considered.

Phase 2. Product architecture

Generate the product’s functional structure

In the first step of the second phase, it is necessary to determine the functions and subfunctions of the product while meeting the requirements from phase 1. To achieve this, a functional decomposition must be undertaken.

On the first functional level, the overall function of the product will be defined. On the second level, we determine the subfunctional structure, expressed by a certain number of partial functions. The logical interrelation between these subfunctions provides the functional structure of the technical system. The functional breakdown is then used to define the technical solutions.

The development of the functional structure should be executed in interdisciplinary teams, and we work closely with the client during this phase. The process should be repeated and empirically processed until a valid and accepted functional structure is created.

Arrange the product structure as a hierarchical composition of the physical product components

The functional decomposition shows that each subfunction may have several practical solutions. The next step is to determine the relationships between the technical specifications and the subsystems.

In this step, the product components and assembly should be arranged in a hierarchical form in order to more easily visualize the entire product. The creation of the product structure can either be done as a workshop or prepared with bills of material, CAD drawings or other structural documents.

Again, we work closely with the client during this phase, as the benefit of developing it together is that a much better understanding of the strengths and weaknesses of the products is achieved.

Connect the functional and product structures to form the product architecture

The combination of the functional and product structures makes up the product architecture, which is the basis for further modularization steps. We define the architecture of a product as the “scheme by which the function of a product is allocated to physical components.” Establishing the product architecture not only involves arranging functional elements and mapping them to physical components, but also the specification of the interfaces among interacting components. In order to capture the structure of the product architecture, we use the IT tool METUS®.

Consider further views

Beyond the functional perspective, further product characteristics need to be considered to generate diverse perspectives on the product structure. An example would be the identification of variant drivers and values that have an effect on different product components in order to generate a variant perspective on modularization.

For example, the variant driver “water-resistance” with its values “yes” and “no” could cause the existence of two different variants of a flashlight’s battery cover. To consider the internal and external variance, it is essential to include the product configuration and sales departments. Further perspectives on the product structure could be derived from supplier, sales or cost considerations. The

The benefits to the manufacturer include reduced complexity and increased interchangeability in engineering, a lower rate of production errors and reduced component variety in manufacturing.

Figure 2. How the product architecture is structured
selection and prioritization of these diverse perspectives depend on the modularization objectives.

**Phase 3. Modularization**

**Design to X: define possible modules**

The next step after determining the existing product architecture is to optimize the product. Information gained from the different perspectives (functions, variants, suppliers, etc.) can be used to define new modules.

In most cases, the newly built modules are designed to standardize product components and assembly groups for a product. One major opportunity to reduce costs is the standardization of production and assembly equipment. In the case where firms have different production facilities, the standardization of production and assembly equipment with universal and sustainable modules could constitute a significant limitation of independence for each respective factory.

**Identify evaluation criteria and compare the modularization alternatives**

In the next step, the developed modularization alternatives need to be evaluated according to their impacts. The successful implementation of our method makes use of the connectivity between the individual perspectives. The consideration of isolated perspectives within product development is helpful for specific applications (for example, functional modeling in early development phases).

However, managing the overall connectivity is of major importance for product modularization. For this reason, the way in which the key influencing factors on the product components cross-link needs to be closely documented, as this allows a full evaluation of each architecture alternative.

To carry out a full assessment of a modular product architecture, the implementation costs need to be estimated. In addition, the modification costs induced by changing requirements, which affect the product structure, need to be anticipated.

**Phase 4. Implementation**

**Implement modular product architecture**

Our method can be concluded by implementing the selected modularization alternative. The result is a clearly structured product with a defined range of modules. The product can be described in terms of the configurations of the specific module variants. This can be a static definition or one that is created dynamically at the point of sale.

Similarly, the product forecasts and actual demands need to be translated into a supply plan for the modules. As a product is launched onto the market in stages, the development of module variants needs to be closely coordinated to match the schedule. PLM software has the ability to define products from a selection of components within a master bill of materials. The selections are based upon the desired properties of the product. There is a logical approach that allows the combination of components to derive the best product solution.
Conclusion

Since Henry Ford’s first initiatives, the automotive industry has remained at the forefront of modern production processes and is now the most comprehensive user of modular product architectures. Volkswagen’s MQB® platform is an example of how an abundance of configuration options can be realized with a limited set of standardized parts and modules.

However, introducing modular product architectures is a complex task, and many industries do not have the resources and capabilities to modularize their product portfolio. Instead, they continue to struggle with the increasing individuality of customer demands.

Originating from the manufacturing industry, modularization concepts can be applied wherever complex systems have to be managed and have already been successfully transferred to branches such as logistics and IT. The methodology presented in this article provides a clear step-by-step process to successfully developing modular product structures and has been effectively applied in the plant engineering industry.
Beyond the barrels: the Gulf’s diversification challenge

Earnings from oil and gas account for 80% of budget revenues across the Gulf region. To build stronger, more stable economies, the Gulf countries must diversify. To succeed, they need to stabilize their earnings from oil and gas. They must expand their revenue base to other sectors. And this must be achieved in a way that creates growth, prosperity and jobs for nationals.
Author
Michael Hasbani
Partner, Advisory Services, EY, United Arab Emirates
Beyond the barrels: the Gulf’s diversification challenge

Oil is a finite resource. If the Gulf states are to secure the future for their coming generations, they must use their oil revenues creatively.

The region of the Cooperation Council for the Arab States of the Gulf (commonly known as the GCC) is heavily dependent on oil. This makes it vulnerable to decreases in the oil price, such as occurred from the mid-1980s until 2000. The big increase in oil prices over the last decade has boosted revenues, but it has also increased the share that oil contributes to the Gulf economies, from 33% of regional GDP in 2002 to 48% in 2012.

This increase obscures the progress that has been made in diversification. But it also underlines the importance of oil and gas for both maintaining energy security and creating economic value. And this explains the continuous investment in the hydrocarbon and energy sector.

Gas now accounts for 25% of hydrocarbon energy. Gas production is over 2,000% higher than it was in 1977, compared with an increase in oil output of 45%.

Qatar is responsible for about half the absolute increase, but the growth rates in Saudi Arabia, Oman and the UAE have also been impressive.

The substitution of gas for oil in domestic power generation has freed up large amounts of oil to export. This trend is likely to be replicated with renewables and nuclear power, particularly in Saudi Arabia, which is looking to generate a third of its electricity from solar power by 2032.

An upward trend in vertical diversification

The majority of the Gulf’s hydrocarbons are still exported in an unprocessed form. So vertical diversification remains an area for significant potential expansion.

Kuwait was an early mover in vertical diversification. It is the only Gulf state to serve foreign consumers directly through its own chain of petrol stations in Europe. The country is currently planning a major new refinery and is updating its old ones through the Clean Fuels Project.

Other important downstream activities for diversifying Gulf nations include petrochemicals and fertilizer production. Since 2003, overall production in the GCC of both fertilizers and petrochemicals has more than doubled.

Saudi Arabia and Qatar, in particular, have been rapidly building up petrochemical facilities. And more capacity is under construction, including the Tacaamol aromatics complex in Abu Dhabi and the expansion of Bahrain’s Sitra fertilizer plant.

Asian demand, which has driven the recent capacity increases, is expected to continue growing strongly. New competition from the US, where cheap shale gas is reviving the downstream sector, could put pressure on margins, but the GCC will remain the lowest-cost producer.

A key trend among Gulf nations is to diversify petrochemical production to a wider range of more complex chemicals and to add further value by processing some of them into plastics and other products. Saudi Arabia’s SABIC is developing techniques to create petrochemicals directly from crude, bypassing the refining stage.

Moving into metal

Access to cheap energy has encouraged diversification into metals production. The Gulf already has 4 of the 10 largest aluminum smelters in the world – and will add a 5th if Qatar goes ahead with an expansion of Qatalum.

The region also has a number of major steel plants. And new projects are under way, including an expansion of the Sohar complex in Oman.

As with petrochemicals, there is a growing focus on creating clusters of downstream manufacturers to utilize some of the metal produced. In Khalifa Industrial Zone Abu Dhabi (Kizad), a vertically integrated metal engineering zone is being built around the existing Emal aluminum smelter.

Oil is a finite resource. If the Gulf states are to secure the future for their coming generations, they must use their oil revenues creatively.

The region of the Cooperation Council for the Arab States of the Gulf (commonly known as the GCC) is heavily dependent on oil. This makes it vulnerable to decreases in the oil price, such as occurred from the mid-1980s until 2000. The big increase in oil prices over the last decade has boosted revenues, but it has also increased the share that oil contributes to the Gulf economies, from 33% of regional GDP in 2002 to 48% in 2012.

This increase obscures the progress that has been made in diversification. But it also underlines the importance of oil and gas for both maintaining energy security and creating economic value. And this explains the continuous investment in the hydrocarbon and energy sector.

Gas now accounts for 25% of hydrocarbon energy. Gas production is over 2,000% higher than it was in 1977, compared with an increase in oil output of 45%.

Qatar is responsible for about half the absolute increase, but the growth rates in Saudi Arabia, Oman and the UAE have also been impressive.

The substitution of gas for oil in domestic power generation has freed up large amounts of oil to export. This trend is likely to be replicated with renewables and nuclear power, particularly in Saudi Arabia, which is looking to generate a third of its electricity from solar power by 2032.

An upward trend in vertical diversification

The majority of the Gulf’s hydrocarbons are still exported in an unprocessed form. So vertical diversification remains an area for significant potential expansion.

Kuwait was an early mover in vertical diversification. It is the only Gulf state to serve foreign consumers directly through its own chain of petrol stations in Europe. The country is currently planning a major new refinery and is updating its old ones through the Clean Fuels Project.

Other important downstream activities for diversifying Gulf nations include petrochemicals and fertilizer production. Since 2003, overall production in the GCC of both fertilizers and petrochemicals has more than doubled.

Saudi Arabia and Qatar, in particular, have been rapidly building up petrochemical facilities. And more capacity is under construction, including the Tacaamol aromatics complex in Abu Dhabi and the expansion of Bahrain’s Sitra fertilizer plant.

Asian demand, which has driven the recent capacity increases, is expected to continue growing strongly. New competition from the US, where cheap shale gas is reviving the downstream sector, could put pressure on margins, but the GCC will remain the lowest-cost producer.

A key trend among Gulf nations is to diversify petrochemical production to a wider range of more complex chemicals and to add further value by processing some of them into plastics and other products. Saudi Arabia’s SABIC is developing techniques to create petrochemicals directly from crude, bypassing the refining stage.

Moving into metal

Access to cheap energy has encouraged diversification into metals production. The Gulf already has 4 of the 10 largest aluminum smelters in the world – and will add a 5th if Qatar goes ahead with an expansion of Qatalum.

The region also has a number of major steel plants. And new projects are under way, including an expansion of the Sohar complex in Oman.

As with petrochemicals, there is a growing focus on creating clusters of downstream manufacturers to utilize some of the metal produced. In Khalifa Industrial Zone Abu Dhabi (Kizad), a vertically integrated metal engineering zone is being built around the existing Emal aluminum smelter.
The challenge with both aviation and tourism is to ensure that they create the high-income, high-status jobs that are of interest to Gulf nationals.

These megaprojects create opportunities for engineering and construction firms and for all of the support services required by these firms and their workforces. And the improvements in infrastructure contribute to an improving operating environment for businesses in many sectors.

This construction activity depends either directly or indirectly on government spending, and hence on hydrocarbon revenue. But it is helping to make possible the growth in other sectors where real value is being created, such as aviation, trade and tourism.

Aviation takes off
Aviation has been a significant success in the Gulf nations’ attempts at diversification, taking advantage of the region’s strategic geographic location, easy access to fuel (whether subsidized or not), excellent airport infrastructure and surplus capital. The three major GCC airlines – Emirates, Qatar Airways and Etihad – have all grown rapidly over the last decade.

The region hosts a number of major airports. These include Dubai International Airport, which was the second busiest in the world for international passenger traffic. Its growth rates suggest that it may soon even surpass London Heathrow. Over the last decade, more new airports have been built, including Dubai World Central – which is particularly important for cargo and logistics – and Hamad International Airport in Qatar.

Expanding its activities in the sector, the UAE has begun to focus on providing maintenance services and aircraft parts.
production. And it has increased its training programs for aviation engineers.

**Trade strengthens**

Sea trade has been important for some Gulf states since the pre-oil era. This sector benefits from the Gulf’s location on the route between Europe, Asia and Africa.

Targeting growth in trade, Dubai and Oman have invested heavily in port facilities and services. They are ideally located to facilitate transshipment across the Gulf region and the wider continent. Kuwait also aspires to enter the sector. It has developed a number of important logistics firms, such as Agility.

There is a risk of port overcapacity in the region. But if global trade continues to grow in line with current projections, there should be enough market for all.

**Tourism draws a bigger crowd**

Tourism is another important growth sector in the Gulf. Its success is closely linked to the growth in aviation. Direct and frequent flights to the Gulf hubs make visits more appealing. This is particularly the case in Dubai, where tourism is one of the main drivers of growth.

Tourism is also a key industry in Saudi Arabia. Religious tourism there is being aided by the expansion of the Grand Mosque in Mecca and a rise in hotel capacity, increasing the number of pilgrims that can be accommodated.

Tourism is a strong sector in a number of other Gulf nations, including Bahrain, which caters mainly to Saudis. Oman offers a variety of attractions, from monsoon-swept coast to high mountains. And Qatar and Abu Dhabi are marketing themselves as high-end destinations for cultural, eco and health tourism.

The challenge with both aviation and tourism is to ensure that they create the high-income, high-status jobs that are of interest to Gulf nationals.

**Cutting the red tape**

In an effort to drive diversification, Gulf countries have sought to encourage investment from the private sector, both domestic and foreign. They have introduced policies to cut corporate tax rates, establish public-private partnerships (PPPs) and reduce bureaucracy.

As part of their efforts to promote inward investment, the Gulf governments have created many free zones. These zones offer tax advantages, shield firms from bureaucracy and permit 100% foreign ownership. Dubai has led the way on free zones, but other examples include the Qatar Financial Center and Salalah in Oman.
There have also been efforts to reduce the costs and delays caused to firms by government bureaucracy. Most Gulf countries score highly on the World Bank’s Doing Business Index, which benchmarks the ease of doing business across the globe. In 2014, the UAE led the Middle East and North Africa region, taking 23rd place globally, followed closely by Saudi Arabia in 26th place.

**Growing markets**
Gulf capital markets are becoming larger and more liquid — demonstrated by the decision to include the UAE and Qatari markets in the MSCI Emerging Market Index from May 2014. This provides new opportunities for local firms to raise capital for growth.

However, the larger family firms that dominate much of the region’s economy tend to remain private. And much of the market capitalization is represented by partly privatized state firms. Gulf governments must continue to seek ways to support family businesses so that they can expand, excel and have a positive effect on the economy.

**Boosting entrepreneurship**
The GCC governments are also making welcome efforts to encourage entrepreneurship. These efforts include Saudi Arabia’s introduction, in 2006, of a US$200m financing guarantee program for small businesses. By the end of 2013, the program had guaranteed 7,280 loans.

In 2013, Enterprise Qatar launched TechWadi, a Silicon Valley-based incubator offering training and support to selected Qatari entrepreneurs, who receive seed financing on their return.

And in Oman, a decree stipulates that, by the end of 2014, 5% of bank lending must go to small and medium-sized enterprises. In the past, these companies have often struggled to get financing.

**Bringing it all together**
The GCC states have all developed long-term diversification strategies. But they have so far failed to coordinate their efforts.

Better coordination would lead to greater efficiencies and would reduce the duplication of economic activities. For example, the GCC could have one aviation or financial services hub, which would benefit the entire region.

As an economic bloc, the GCC would represent one large market for strategic investors. This would make the Gulf a more attractive destination for the transfer of know-how and the creation of jobs.

The absence of such coordination means that foreign investors think twice about large-scale investments. This is because investors currently have to set up operations in several fragmented markets, each with different rules and regulations.

There are some important cross-border initiatives under way, such as the Etihad railway network — connecting Saudi Arabia and Oman via the UAE — and the integration of the electricity grid. But more needs to be done.

Integration has clear benefits for all parties. Increasing it would aid the drive for diversification and would help provide solutions for some of the region’s most significant social and economic challenges. ■
Contacts

If you wish to contribute to *Performance* or comment on the articles published, please contact us via one of the following emails:

- performance@de.ey.com
- anna.di.mattia@de.ey.com

**Chief Patron**
Markus Heinen

**Chief Editor and Coordinator of EY’s Think Tank for Business Performance & Innovation**
Anna di Mattia

**Editor**
Darryl Eliston

**Design, layout and style**
Catherine Darphin

**Marketing**
Nicole Jüppner
Argentina
Roberto Osvaldo Fraga
roberto.fraga@ar.ey.com

Baltics
Nauris Klava
nauris.klava@lv.ey.com

Belgium
Jan Baiyu
jan.baiyu@be.ey.com

Brazil
Cristiane Amaral
cristiane.amaral@br.ey.com
Carlos Bremer
Carlos.bremer@br.ey.com

Canada
Julie Bourgault
julie.bourgault@ca.ey.com

Chile
Diego Luis Balestra
diego.balestra@cl.ey.com

China
Arthur Bi
arthur.bi@cn.ey.com

Commonwealth of Independent States (CIS)
Sergey Zaborov
sergey.zaborov@ru.ey.com

Colombia
Javier Macchi
javier.macchi@co.ey.com

Ecuador
Diego Ramiro Leon
diego.leon@ec.ey.com

Germany
Marcus Schreiner
marcus.schreiner@de.ey.com

Greece
Konstantinos Moros
konstantinos.moros@gr.ey.com

Hong Kong
Alex Viale
alex.viale@hk.ey.com

India
Ashish Nanda
ashish.nanda@in.ey.com
Guru Malladi
guru.malladi@in.ey.com

Italy
Andrea Bassanino
Andrea.bassanino@it.ey.com

Japan
Junji Suzuki
junji.suzuki@ip.ey.com

Mexico and Central America
Gilberto Lozano
gilberto.lozano@mx.ey.com

Middle East
Ahmad Ahmad
ahmad.ahmad@sa.ey.com
Ahmed Taher
Ahmed.taher@sa.ey.com

Netherlands
Jan Visser
jan.visser@nl.ey.com

New Zealand
Fenna Wegman-Setiadi
fenna.wegman@nz.ey.com

Norway
Bård Hayland Karlsen
bard.karlsen@no.ey.com

Peru
Paulo Cesar Pantigoso
Paulo.pantigoso@pe.ey.com

Poland
Robert Dziedzic
Robert.dziedzic@pl.ey.com

Republic of Serbia
Natasa Vuksic
Natasa.vuksic@rs.ey.com

Slovak Republic
Vladimir Kastner
Vladimir.kastner@sk.ey.com

South Africa
Andrea Le Roy
Andrea.leroy@za.ey.com

Sweden
Per Skallefell
Per.skallefell@se.ey.com

Switzerland
Heiko Schikor
Heiko.schikor@ch.ey.com

Turkey
Bulent Ozan
Bulent.ozan@tr.ey.com

United States of America
Sven Krause
Sven.krause@ey.com

Venezuela
Ligia B. Parra Barrão
Ligia.parra@ve.ey.com

PERFORMANCE
If you would like to subscribe to *Performance* or read any of the content online, please visit www.ey.com/performance.
You can now read *Performance* on your mobile devices, which means, of course, you get additional insights from authors and commentators.

The *Performance* app allows us to bring you an interactive element to the articles and case studies in *Performance* journal.

For example:

**Listen**

to authors give additional insight into their thinking behind some of the innovative ideas they discuss

**Watch**

authors and experts give their opinions on the topics discussed

**Hear**

additional perspectives from some of those we’ve interviewed

Follow *Performance* on Twitter @EY_Performance
About EY

EY is a global leader in assurance, tax, transaction and advisory services. The insights and quality services we deliver help build trust and confidence in the capital markets and in economies the world over. We develop outstanding leaders who team to deliver on our promises to all of our stakeholders. In so doing, we play a critical role in building a better working world for our people, for our clients and for our communities.

EY refers to the global organization, and may refer to one or more, of the member firms of Ernst & Young Global Limited, each of which is a separate legal entity. Ernst & Young Global Limited, a UK company limited by guarantee, does not provide services to clients. For more information about our organization, please visit ey.com.

About EY's Advisory Services

Improving business performance while managing risk is an increasingly complex business challenge. Whether your focus is on broad business transformation or, more specifically, on achieving growth or optimizing or protecting your business, having the right advisors on your side can make all the difference. Our 30,000 advisory professionals form one of the broadest global advisory networks of any professional organization, delivering seasoned multidisciplinary teams that work with our clients to deliver a powerful and exceptional client service. We use proven, integrated methodologies to help you solve your most challenging business problems, deliver a strong performance in complex market conditions and build sustainable stakeholder confidence for the longer term. We understand that you need services that are adapted to your industry issues, so we bring our broad sector experience and deep subject matter knowledge to bear in a proactive and objective way. Above all, we are committed to measuring the gains and identifying where your strategy and change initiatives are delivering the value your business needs.

© 2015 EYGM Limited.
All Rights Reserved.
EYG No. AU2878
Performance 7.1 February 2015.
Artwork by EMEIA MAS. 1001743
ED None

In line with EY's commitment to minimize its impact on the environment, this document has been printed on paper with a high recycled content.

This material has been prepared for general informational purposes only and is not intended to be relied upon as accounting, tax or other professional advice. Please refer to your advisors for specific advice.

The views of third parties set out in this publication are not necessarily the views of the global EY organization or its member firms. Moreover, they should be seen in the context of the time they were expressed.

ey.com/performance